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RESEARCH REVIEW

Office of Research and Technology Transfer

July 1998

New Research V.P. and Grad School Dean Welcomes Both Jobs

The Combination Safeguards the Integration of Research and Teaching, says Maziar

Christine Maziar, the “vice-president on-deck” she called herself at the time, answered questions for the June meeting of the Senate Research Committee. (She assumed the full authority of her position, vice president for research and dean of the Graduate School, on July 1.)

The questions were broad, like “IMG and the use of ICR funds?” On several topics, the future of ORTTA, for example, Maziar’s response was simply to the effect of “I can’t say yet; I need to learn more.”

Maziar did speak, however, of why it is good to wear the dean’s and vice president’s hats simultaneously; of her concern for the entire University, without bias towards the cash cows; and of retaining enough central responsibility and funding, in the midst of all our decentralizing, to fill the gaps and support the visionaries.

Regarding the dual role of vice president and dean, Maziar argued that “integration of the roles of vice president for research and the graduate dean expresses the importance of the integration of our lives as researchers and scholars, with our lives as educators.” She also defended that dual role as

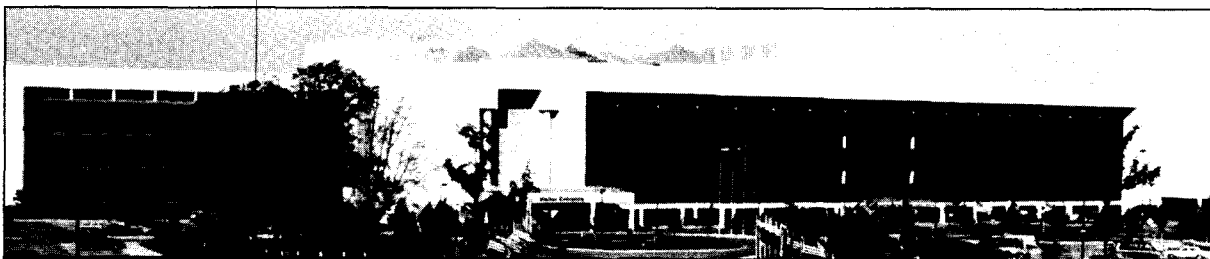
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an important check and balance: “One could imagine a vice president for research being driven in ways antagonistic to graduate education. That can’t happen as long as I’m wearing the hat of dean of the Graduate School.”

Reminded of anxiety among scholars and programs that don’t, by nature, bring in lots of sponsored

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The Minneapolis VA Medical Center, home of a new Center for Chronic Disease Outcomes Research. See page 3.

Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

- * A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

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Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Phil Norcross, 612/625-2354, phil@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr	+ 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr	+ 8.7%
Summer quarter TA, RA, AF	—	8.7%
Summer session TA, with tuition	\$12.44/hr	+ 8.7%
Summer session TA, without tuition	—	8.7%
Professional program assistant	—	8.7%
Dental fellow *	\$4.30/hr	—
Medical fellow *	\$3.30/hr	—

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Business Services office; call Vivian Fickling, 612/624-2009.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Phil Norcross, editor, 612/625-2354, phil@ortta.umn.edu.

Minneapolis VA Starting Outcomes Research Big-Time

New Center Seeks to Improve Care of Chronic Disease

Take something as basic as aspirin for patients with heart disease—we've known about the benefits of aspirin for years, but maybe half the patients who should be taking it get that advice from their doctors. Why is that?" asks Hanna Rubins, a physician at the Minneapolis VA hospital. "Is it that the doctors don't know the information? Or they know it and they're just too busy in a visit to remember? Or has the system failed?"

"We want to investigate how we take what we know about treating chronic disease and actually get it to the patients," says Rubins, "and our laboratory is 80,000 patients at five Upper-Midwest medical centers."

Rubins directs the newly created Center for Chronic Disease Outcomes Research at the Minneapolis VA Medical Center. Because the Minneapolis VA is a part of "Veterans Integrated Service Network Number 13," its patient population extends to VA hospitals in St. Cloud, Fargo, Sioux Falls, and Rapid City, for a total of about 80,000 members. It also has access to nationwide data from VA health care—the oldest and largest managed care system in the nation.

The center's first big investigation is a mail survey of all 80,000 patients in VA network 13, in order to learn about their current health. "Once we have that initial information, the next challenge and opportunity will be to devise a way to monitor longitudinally, over time," says Kristin Nichol, leader of the survey project.

"The survey instrument," Nichol explains, "is a standard form widely used in health care—the 'SF 36.' It asks, for example: How good is your health? Can you lift heavy objects? Climb stairs? Bathe? How often do physical or emotional problems interfere with your daily activities?"

VA health care is the largest and oldest managed care system in the nation, and it serves an unusually stable patient population.

Rubins is chief of general internal medicine at the Minneapolis VA hospital, and an associate professor of medicine at the University of Minnesota. Nichol is chief of medicine at the VA and professor of medicine at the University. Rubins describes creation of the center as a "critical mass" of health service researchers recognizing need and taking advantage of opportunity.

"It seems to be a propitious time for health services and outcomes research in the VA," Rubins explains. "They're pouring more money into it than they ever used to. John Feussner, the new chief of research at VA headquarters in Washington, is himself a health services researcher."

More importantly, the population is aging in the VA, like everywhere else, so there are more patients with chronic disease—failing hearts and lungs, prostate cancer, arthritis. "Instead of just taking care of the acute problems that we've been organized for," says Rubins, "we have to figure out how to take care of patients through their chronic diseases."

The Minneapolis center is the VA's eleventh "center of excellence" for health services research. The funding, \$3.4 million from the VA for five years, arrived on April first. Since then, the big job has been recruiting people. Rubins, Nichol, and five other Minneapolis VA physicians form the core staff of investigators. They have hired, or seek to hire, as many as six researchers specializing in epidemiology, sociology, and biostatistics. Rubins expects the center will be "up to speed" by fall.

Nichol will survey 80,000 subjects, and expects a response rate of 70 to 80 percent.

All seven of the VA investigators are also members of the University of Minnesota faculty, in either medicine or nursing, and the center's steering committee includes three leaders from the U's School of Public Health: Marshall McBean, head of Health Management and Policy, John Kralewski, head of Health Services Research and Policy, and Russell Luepker, head of Epidemiology. The steering committee also included Andrew Nelson, executive director of the Health Partners Research Foundation.

Nelson describes his foundation and the Minneapolis VA as "natural partners in research and patient-care improvement in a managed care environment."

McBean sees "a lot of potential for collaboration" between University investigators and the VA center. "I'm happy to be a part of it," he says. "I'm very excited about dealing with the VA population and looking at the entire health profile of each veteran as best we can, and designing studies to test ways of obtaining better clinical outcomes."

{continued on page 13}

PIs Must Budget Some Effort on Every Proposal

Last month's *Research Review* addressed the importance of accurately documenting PI effort on every project. It is also necessary for PIs to indicate their planned effort in their proposals; those effort plans are essential for University management and for compliance with federal regulations.

Why must the PI show effort?

Sponsors' definitions of "principal investigator" vary, but they all can be summarized as "the person responsible for the scientific or technical direction of the project." To set direction and oversee performance takes time. If a PI does not provide some effort, it would appear the PI is not overseeing project activities, or worse, that the effort is charged to some other sponsor.

Why does PI effort need to be in the proposal?

To understand a project's total cost to the University, it is necessary to identify all the resources that will go into the project. PIs' time is a very important resource, and their effort must be identified. Department heads and deans will consult effort plans when approving resource commitments on an "Application for External Research, Training or Public Service Support" (a.k.a. "Proposal Routing Form" or "BA23"), and for strategic planning of unit activities. Sponsors use effort plans to determine if time is adequate to perform the work, whether the PI has sufficient time to do the project, and to monitor performance. ORTTA uses contributed effort shown in proposals as one source to load cost-share information into the effort certification system. Centrally, the information is used to generate monitoring and compliance reports for grants management.

If the sponsor doesn't care, is it still necessary to identify the effort?

Yes, absolutely. As indicated above, the sponsor isn't the only one who might need the information. By definition, a PI gives some effort to a project. If the PI effort is not shown in the proposal, then cost-sharing is implied. But the University wants to minimize cost-sharing as much as possible, in order to avoid subsidizing sponsored research and in order to maximize indirect cost recoveries. If the plan is to voluntarily contribute the PI's time, department heads and deans must be given the opportunity to review and approve. It is mostly their budgets that pay for the contributed time. Also, federal sponsors require listing *all* current and pending research efforts for their peer review processes. Through EGMS the University is building a database of current and pending support to help PIs complete that part of a proposal.

How much effort?

How much effort to propose depends on the nature of the work and the resources at a PI's disposal. It could be as little as 1 percent for a small study for which the hands-on work is done by staff or students, to as much as 95 percent when the PI works exclusively on a single project. (100 percent effort is allowed only if it is required by the award terms, as in the case of some career development awards.)

What happens if PI effort is not shown in the proposal?

If you submit a proposal without PI effort, expect a call from your friendly grant administrator! The University will not endorse a proposal without some PI effort. Under the pressure of a busy deadline, grant administrators may not have the time to deal with the problem and may have to send a proposal without effort. But the grant administrator must get the information before an award will be set up.

by Todd Morrison, assistant director, Sponsored Projects Administration

On-Line Tool Available for Creating Generic Proposals

The proposal development module in the Electronic Grants Management System (EGMS) now has, in addition to the NIH and NSF proposal forms, a generic proposal format.

The generic proposal tool enables you to provide your sponsor with pertinent legal and budgetary information. It assists in building a budget by using the University chart of accounts; by applying inflation rates, fringe rates, and indirect-cost rates; and by prorating salaries—just as the NIH and NSF modules do. It supplies a face page with institutional information, PI information, budget totals, and signature spots. Audits in this module are less stringent in order to allow a wide range of flexibility in creating a proposal.

To take advantage of this new tool, go to the EGMS web site at <http://nirvana.ortta.umn.edu> and enter the proposal preparation module. Use it to create your next proposal to one of the many sponsors that do not have their own forms, or just give it a test drive. This proposal module will also generate a Proposal Routing Form (BA23) for you once you pass the audit of the entire proposal.

Remember, send us your comments at egms@micro.boombbox.umn.edu.

by Susan Stensland, SPA

Question: What are Preaward Accounts and Preaward Costs?

Answer: There has been confusion between a “preaward account,” which is an account assigned prior to receiving an official award, and “preaward costs,” which are costs incurred prior to a budget period’s starting date.

Preaward accounts are used when the paper process of receiving an official award lags behind the start date of a project. Bilateral awards are official only after they are fully signed by all parties; unilateral awards are official when they are received by the University. Without a proper award, ORTTA cannot assign an account number. However, if a PI is reasonably sure that an award will be made, and has assurance from the sponsor of the start date, the PI may request to have a preaward account established. In doing so, the department accepts the financial risk in the event that an award is not made or the start date is changed. Some sponsors may not cover costs incurred before the final signature date or issuance of an award. See the *Guidelines for Establishing Accounts for Pending Awards* (<http://www.ortta.umn.edu/policy/pending.htm>).

Preaward costs are expenses that some federal agencies allow up to 90 days *prior* to the start of a project period. This may or may not be arranged via a preaward account. Preaward costs are not allowable under some federal awards, and agencies have different requirements for approval of such costs. To determine whether your pending award may qualify for this option, contact your grant administrator. If you have determined that preaward costs are allowable, you must identify them as preaward at the time of incurring them, or they will be disallowed.

There is also the situation, particularly with awards from NIH or the U.S. Department of Education, whereby the work in the current budget period has accelerated so that activities identified in future years may begin early. This can give the impression of overexpenditure. When this situation occurs, the PI must request preaward costs due to acceleration of work scope prior to beginning those activities. The letter must identify the work begun, provide an estimate of costs and budget, and be signed by the PI and department head.

A preaward account does not automatically authorize spending prior to the start of the project period. For example, if a preaward account is requested June 1, the award arrives with a start date of July 1, and the sponsor agency does not allow preaward costs, then expenses incurred from June 1 to June 30 will not be allowed. Again, contact your grant administrator for advice prior to incurring any such costs.

by Kate Tennessen, sr. grant administrator

Grants Management Committee New Model Would Distribute Grant Responsibility

The University’s Grants Management Committee presented its new “Institutional Oversight Model” to various faculty and administrative forums during May and June.

The model describes the responsibilities of various members of the University community for the elements of the grants management process. The committee emphasized that its model is focused on the architecture of the oversight model thus far. Implementation details will be developed over the summer.

The model calls for decentralization of the responsibilities now belonging to the University’s Sponsored Projects Administration. “Certified approvers” empowered to make “low-risk” decisions—sending routine purchase orders to vendors, for example—would operate at the local level. Typically they would work in departments, but an approver might also work in a dean’s office or in a “service cluster” that would serve several colleges.

The SPA would maintain responsibility for “high-risk” transactions. It would also help departments with proposals, help the certified approvers with their work, and remain the “institutional official” in charge of endorsing proposals, accepting awards, and otherwise communicating with sponsors.

The key to the success of the model will be the creation of the Office of Institutional Oversight Analysis and Reporting. Along with SPA, this office will report to the VP for Research.

This structure is chiefly based, says the committee, on three principles that should govern sponsored project administration: “Responsibility” is the authority to make a decision and the obligation to bear the consequences of that decision. To the extent possible, responsibility should be maintained locally, so that decisions are made by the individuals with the best information. Oversight should always be separate from the operating unit that makes the decisions.

The committee is working to develop a number of new financial reporting tools to be produced via the web, that will be available to principal investigators, department, collegiate, and central personnel to aid in the management of sponsored projects. For example, a “burn rate” report would tell faculty the rate at which they are spending the money in a given account. These reports will serve to alert administrators of potential problems that need to be investigated.

by WinAnn Schumi

SPA Staff Have Part-Time Office in the AHC Research Service Organization

Help with Industry Contracts Available Tuesday and Thursday Mornings

Beginning July 1, SPA staff are available in the office of the Academic Health Center's Research Service Organization (RSO) to provide contract review and management assistance to faculty and staff involved with clinical trial activity sponsored by business and industry. Two senior contract administrators for business and industry, Judy Volinkaty and Gary Gillet, will alternate Tuesday and Thursday mornings from 8:30 until noon in room 623 of the Children's Rehabilitation Center.

SPA and the RSO are piloting this idea to determine if the convenience of on-site availability is helpful to the faculty and staff in the Academic Health Center who may be struggling with the complexities of business and industry sponsored clinical trial projects. The SPA staff will be available to provide:

- review of business and industry clinical trial proposals,
- review and interpretation of proposed award terms,
- risk identification and strategy for negotiations,
- negotiation with sponsors, and
- advice and assistance resolving issues on funded projects.

The SPA staff in the RSO office are not authorized to endorse proposals, nor execute contracts. That will still have to be done in the main SPA office. Also, please do not bring other materials to this office for transport to the main SPA office. We are not creating a courier service, and the staff are not authorized to accept other materials.

Appointments during the scheduled days may be made by calling the RSO office at 625-4171. Drop-ins are welcome if the contract administrator is free. If you would like to see us about a specific project, it's recommended you schedule an appointment a few days in advance and identify the project so we can bring the necessary file(s).

By Todd Morrison, assistant director, SPA

CLA Reopens its Research Development Office

The College of Liberal Arts has reopened its research development office, under the coordination of Jeanine Ferguson.

CLA had closed its research development operation in the early '90s, for lack of funding. The new office opened in April.

Ferguson and her office will help CLA faculty with all phases of getting support for research, scholarship, and art, including the following:

- Identifying and publicizing sources of funding;
- Developing relations with regional and national funding agencies;
- Advising faculty members about developing grant proposals;
- Coordinating interdisciplinary grant proposals;
- Reviewing UM "Application for External Research, Training or Public Service Support" (formerly the "BA23" form);
- Identifying and publicizing the research and creative interests of CLA faculty members;
- Directing announcements or requests for proposals to particular faculty members or groups;
- Monitoring the development of relevant state and federal legislation in cooperation with other University offices.

Ferguson also plans a range of on-line services at <http://www2.cla.umn.edu/resources/research.asp>:

- News and information about funding opportunities;
- A calendar of upcoming research deadlines;
- *research@cla*, a monthly newsletter about program deadlines, funding sources, trends, and funding successes;
- Profiles of CLA researchers and their interests;
- Links to other University of Minnesota research offices;
- Reference materials;
- A directory of contacts;
- A listserv for CLA researchers; and
- Easy access to various administrative forms.

The CLA Office for Research Development, 102 Johnston Hall, is open all day, five days a week. Visit, phone 626-9612, or write to research@cla.umn.edu.

Maziar

(continued from page 1)

money, Maziar was loud and direct with reassurance: "We are working to build the University of Minnesota, not just the research enterprise, not just the graduate education enterprise, not just undergraduate education.

"We're here to advance the University of Minnesota and make sure we have an institution that we who are spending our lives here can be proud of, that our students who are graduating can be proud of, and most importantly that those folks out in the state who are paying taxes can be proud of."

Where does Maziar stand regarding the trend to decentralize management and funding of the University? "As you might guess, the president's style and my style are similar," she said. "You don't decentralize everything. Decentralizing some of the funding and some of the authority doesn't mean that the central administration is absolved of responsibility."

"Mark Brenner has been extraordinarily generous with his time. I owe him a big debt of gratitude." — Christine Maziar.

Funds will be retained in the Provost's Office and the Graduate School to "fill the gaps," she said, and funding new initiatives is also part of the Graduate School's responsibilities, with the emphasis on "funding." The faculty, not the Graduate School, are the best source for the initiatives themselves, while "my role as administrator is to facilitate the aspirations of the faculty, students, and staff, not to push Chris Maziar's vision."

At the same time, Maziar expressed concern about the recent cuts in her own offices. "Mark [Brenner] deserves a lot of credit for having been able to sustain the organization after absorbing those cuts," she said. "I very much appreciate those efforts. I think I'm inheriting a healthy organization with some great people."

On the topic of policy-making, Maziar called for quick action to finish the new intellectual property policy, and she called for slowing the impulse to create whole new policies in response to single incidents. "All institutions like ours develop a history of burdensome rules developed to address a singular event rather than a pattern of events," she said. "We need to recognize and address the patterns."

(next column)

The "awe-inspiring" opportunities in biology at this university Maziar attributed to the rare conjunction of medical, agricultural, and basic science researchers.

Maziar closed by repeating her thanks to Mark Brenner, whose job she takes over. "Mark has been extraordinarily generous with his time," she said. "I owe him a big debt of gratitude, as does the whole University."

by Phil Norcross

RAR-Talk is the Listserve for UM Animal Users

Do you have questions about how to perform a particular animal procedure?

Want to know how to get your protocol through the IACUC on the first try?

Anesthesia giving you problems?

Looking for a collaborator?

Have animals that can be used for a second study?

Want animals that have been used in a previous study?

The e-mail forum RAR-Talk welcomes anything you can think of to ask RAR, the IACUC, or other investigators.

Research Animal Resources created RAR-Talk exclusively for use by University of Minnesota investigators and staff who use animals. RAR-Talk is a mechanical "listserv": when it gets an e-mail message from one of its members, it passes it on to all of its members.

RAR-talk is a private list open only to personnel certified to use animals, or other interested parties such as IACUC or administrative staff. Members will receive all messages posted to the list.

You can have the messages sent to you once a day in a "digest." If you are busy or out of town, you can stop receiving messages whenever you request it.

To subscribe to RAR-Talk, please send the following information to rar-talk-request@tc.umn.edu: Name, position, department, supervisor's name (unless you are a PI), e-mail address. Are you certified for animal use at the U of M by the IACUC? If not, please describe your interest in joining the list.

Adapted from the *RAR Newsletter*, June 1998

What's New in Grants Management

an index to changes, answers, and announcements

"What's New in Grants Management," now appearing monthly in *Research Review*, will provide a complete index to news regarding grants management, including changes in policy, answers to common questions, and announcements in changes in practice at SPA and ORTTA.

Check "What's New" regularly for policy changes essential to proper and accountable grants management.

"What's New" will also be posted on ORTTA's web site, www.ortta.umn.edu; see "Today's News."

What's New in Grants Management

July 1998

(month 1 of UM fiscal year 1999)

SPA Update 9901 - Generic proposal added to EGMS

Notice issued: 7/1/98

Supersedes: n.a.

Effective date: available immediately

Change:

A generic proposal application has been added to the available on-line forms on EGMS. Other forms include the UM's Application for External Research, Training or Public Service Support (a.k.a. "BA23" or "Proposal Routing Form"), NIH and NSF new and renewal applications, and NIH non-competing continuation applications.

Action to take:

If you are interested in submitting any on-line application, contact your grant administrator or write to egms@boombox.micro.umn.edu. See *Research Review*, July 1998, page 4.

SPA Update 9902 - Changes to manual

Notice issued: 7/1/98

Supersedes: 4/97 revisions

Effective date: 7/1/98

Change:

Several sections of *Managing Sponsored Projects at the University of Minnesota* have been revised. A complete list of changes is available on the "Today's News" page on ORTTA's website (www.ortta.umn.edu).

Action to take:

Print out these pages and add or substitute them for the appropriate pages in the manual.

SPA Update 9903 - Additional information required in letter to transfer a project to another institution

Notice issued: 7/1/98

Supersedes: 10/96 Ch. 4.7

Effective date: 7/1/98

Change:

In order to transfer a project, the letter that a PI must write to the sponsor and have countersigned by SPA must include a conservative dollar estimate of the amount to be transferred, must identify the equipment to be transferred, and must be signed by the PI, department head, and dean (if required by collegiate policy). See chapter 4.7 in *Managing Sponsored Projects at the University of Minnesota* for further information.

Action to take: n.a.

SPA Update 9904 - Revised overview brochure

Notice issued: 7/1/98 on web

Supersedes: 1/96 edition

Paper copies available in August

Effective date: 7/1/98

Change:

ORTTA's Office of Sponsored Projects Administration has revised its brochure, "An Introductory Overview of Sponsored Projects Administration."

Action to take:

Download the document from SPA's web site at www.ortta.umn.edu/spa.htm.

For paper copies, call SPA at 612/624-5599.

SPA Update 9905 - PIs must budget some effort on every proposal

Notice issued: 7/1/98

Supersedes: n.a.

Effective date: n.a.

Change: n.a.

Action to take:

See *Research Review*, July 1998, page 4.

SPA Update 9906 - What are preaward accounts and preaward costs?

Notice issued: 7/1/98

Supersedes: n.a.

Effective date: n.a.

Change: n.a.

Action to take:

See *Research Review*, July 1998, page 5.

SPA Update 9907 - SPA staff have part-time office in the AHC RSO

Notice issued: 7/1/98

Supersedes: n.a.

Effective date: 7/1/98

Change: n.a.

Action to take:

See *Research Review*, July 1998, page 6.

PTM Update 9901 - New PTM brochure

Notice issued: 7/1/98 on web

Supersedes: n.a.

Paper copies available in August

Effective date: 7/1/98

Change:

The Office of Patents and Technology Marketing has developed a new brochure, "Protecting and Marketing Faculty Inventions." It provides faculty and staff with information on patents, the technology transfer process, and numerous other intellectual property issues.

Action to take:

Download the document from PTM's web site at www.ortta.umn.edu/patents.htm.

For paper copies, call PTM at 612/624-0550.

Sigma Delta Epsilon Supports Women in Science

Sigma Delta Epsilon/Graduate Women in Science held its 1998 national meeting at the University of St. Thomas last month. Titled "Hot Zones in Science," the meeting devoted one of its four days to scientific symposia.

The speakers included UM biochemist Norma Allewell, describing the art of determining protein structures; Lael Gatewood, director of Health Computer Sciences at the University, on the role of computerization in clinical trials; UM computer scientist Maria Gini on robotics; and a half-dozen scientists from the medical device and pharmaceutical industries.

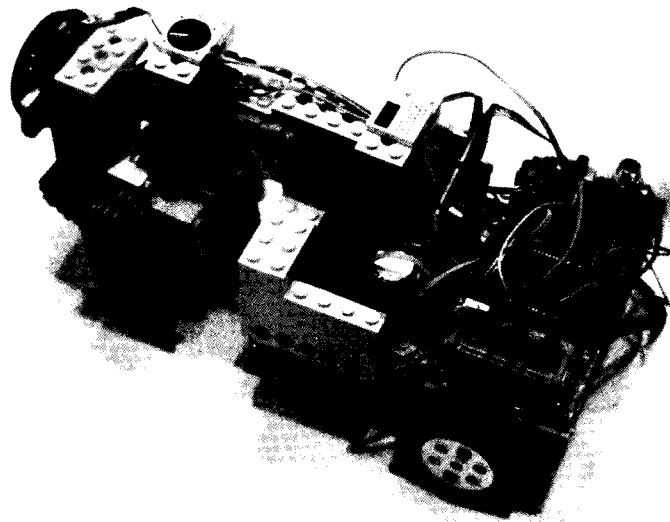
The symposia closed with a presentation by Nancy and Jerry Jaxx, whose work to contain the 1989 Ebola outbreak in Virginia was described in the recent book *The Hot Zone* (Richard Preston, 1994).

The local chapter of Sigma Delta Epsilon, the XI chapter at the University of Minnesota, provides travel awards to help graduate students present their research at scientific meetings. Applications are due October 30, February 12, and May 14.

The four winners in 1997-98 were Michelle Prysby of Ecology, Evolution, and Behavior at UM, for work titled "Large-scale monitoring of larval monarch (*Danaus plexippus*) populations and milkweed (*Asclepias spp.*) habitat"; Amy Fleischer of Mechanical Engineering for "Influence of bubble formation on pressure drop in a uniformly heated vertical tube"; Melissa McCornack of Biochemistry, and Valerie Weller of Chemistry.

Membership in Sigma Delta Epsilon is open to women with baccalaureate degrees in science or engineering who have some research experience. The national organization publishes a bulletin, provides fellowships for students, sponsors symposia, and provides recognition for women who have made exceptional contributions in research or science education.

For local membership information, call Gretchen Unger, 612/626-3482, unger013@tc.umn.edu.



Made of tractor-yellow Legos, three wheels, a microprocessor board, and a distance-sensor like that in an auto-focus camera, Gini's robot knows only one command: "Move away."

Robot With the Brains of a Bug Can Back Up a U-Haul

While demonstrating her robots, Maria Gini speaks admiringly of insects. “They’re small. They need little energy. They survive in a huge world, full of danger, by means of very simple behaviors and complex societies,” she told the Sigma Delta Epsilon meeting in June (see page 10).

Gini foresees a bug-like future for robots—mass quantities of simple machines doing simple things in close association with one another.

Simple devices can appear pretty complicated, said Gini, even life-like. She demonstrated with a toy truck that knows only one command: “Move away from things.”

Made of tractor-yellow Legos, three wheels, a microprocessor board, and a distance-sensor like that in an auto-focus camera, the robot heads rather purposefully across the floor until there’s something in the way. Then the eye turns in its socket, so to speak, and the robot runs off in the next open direction. “This is an explorer,” said Gini. “It goes.”

Gini argues that even very simple robots can learn. She described another of her robot trucks, this one with a trailer. Given an “eye” to see a light bulb, a sensor to measure the angle of the trailer tongue, and a chip to determine steering-wheel angles by trial and error, the truck can learn to back the trailer to the light in just 20 or 30 tries. Not bad, compared to a lot of people backing up their first U-Haul.

“At the start, the neural array is clueless,” said Gini. “But amazingly, it works. It’s fast. It’s robust. It’s reliable.”

Then Gini asks the hard question: “Is it useful?”

“I don’t know,” she answers. On the other hand, she sees precedent. “Insects are hugely successful. Nature has shown us that it’s easy to survive if you’re small and simple.”

Maria Gini is a professor of computer science and engineering at the University of Minnesota. Her research is guided, she writes, by “the expectation that many small robots will be able to operate more robustly and be more cost-effective than a few larger and more complex ones.” She refers the curious to a classic work by Valentino Braitenberg: *Vehicles: Experiments in Synthetic Psychology* (MIT Press, 1986).



IRB: Human Subjects Committee

Federal Inspector General Worried About the Future of IRBs

The review board system for human subjects is in trouble, according to the inspector general of the U.S. Department of Health and Human Services.

"While we do not claim that there are widespread abuses of human research subjects," wrote the DHHS Office of Inspector General in June, "our findings serve as a warning signal of a system that is in jeopardy."

The inspector's report names six problems looming over U.S. Institutional Review Boards:

IRBs face more proposals, more managed care, more commercially funded research, more multisite trials, more types of research, and more patient consumerism.

IRBs review too much, too quickly, with too little expertise.

IRBs conduct minimal continuing review of approved research.

IRBs face conflicts that threaten their independence, because clinical research provides revenue and prestige to institutions.

IRBs provide little training for investigators and board members.

Neither IRBs nor the HHS devote much attention to evaluating the effectiveness of IRBs.

The IRB system is working now, the inspector emphasizes, "but our findings present an important warning." IRBs are already strained, says the report, and federal plans will lead to more subjects in trials and more IRB responsibility for genetics and confidentiality.

The inspector makes these six recommendations to the NIH and the FDA:

Make IRBs more flexible and hold them more accountable.

Require that IRBs have adequate resources.

Strengthen continuing protection for subjects in trials.

Help insulate IRBs from conflicts of interest.

Require that investigators and reviewers are adequately educated.

Reengineer federal oversight of IRBs.

UofM IRB Cited Among the Promising Approaches to the Future

Moira Keane, director of Research Subjects' Protection Programs at the University of Minnesota, offers the following in response to the inspector general's concern for the future of U.S. IRBs.

In the June report "Institutional Review Boards: Promising Approaches," the inspector general of the U.S. Department of Health and Human Services twice points to the UofM as a model: once for its training programs, once for its self-evaluations.

The UM IRB has a larger and more professional staff than four years ago, and it works with better computing systems. UM now has six review boards. They have tremendous scientific expertise.

The University IRB has an aggressive continuing review process. Reports are required no less than annually, more frequently on high-risk studies.

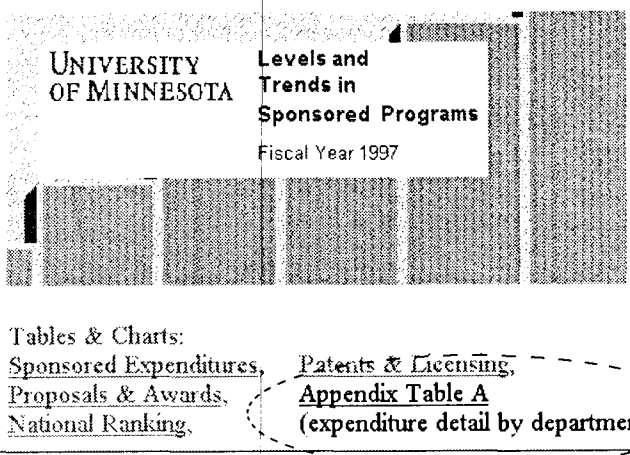
The University reviewed several studies to measure compliance and to assess communication. It finds that in most cases, investigators' self-reports are sufficient. When they are not, the IRB has set up monitoring and supervision.

Funding information is not provided to reviewers. Neutrality is safeguarded by having the IRB and its staff report to a vice president for the entire University, rather than the AHC. The vice president for research employs a director of research ethics and regulatory compliance. Investigators cannot "shop around" for a favorable IRB. All panels include reviewers who are neither professional scientists nor otherwise affiliated with the University.

The University has an active training program for faculty, staff, and students. The AHC training is required before a research proposal will be endorsed. The vice president for research employs a training coordinator. The University provides electronic, web-based training tools and guides, including a tutorial on informed consent, and it recently designated a faculty position one-third time to training IRB members and investigators.

June Gibbs Brown, inspector general for the U.S. Department of Health and Human Services, published the four reports about IRBs in June. All four reports are available at <http://dhhs.gov/progorg/oei/>.

Netsite: <http://www.ortta.umn.edu/levels/>



UNIVERSITY OF MINNESOTA Levels and Trends in Sponsored Programs Fiscal Year 1997

The Appendix to *Levels & Trends* is Now on the Web

The appendix table, in .pdf format, reports sponsored expenditures by most every unit of the University.

Tables & Charts:
[Sponsored Expenditures,](#) [Patents & Licensing,](#)
[Proposals & Awards,](#) [Appendix Table A](#)
[National Ranking,](#) [\(expenditure detail by department\)](#)

Levels and Trends in Sponsored Programs at the University of Minnesota Fiscal Year 1997 is ORTTA's annual report of sponsored projects at the University. By popular demand, the web version for fiscal '97 now includes part of what used to be published under separate cover as the appendix--"Table A University of Minnesota External Support Expenditures Fiscal Year 1997 by Department and Type of Support."

The table lists, for each department, the amount expended for research from sponsored funds, departmental funds, and special state appropriations; it also reports expenditures for training, public service, and student aid.

Find *Levels & Trends* at www.ortta.umn.edu

VA Research

{continued from page 3}

Rubins explains that the center will provide University investigators—through collaborations with VA investigators—with access to a large new source of funding that would not otherwise be available outside the VA. “Plus it gives students and fellows another place to work, to get some mentoring, to have access to large populations and data resources,” she adds.

Along with having the largest U.S. managed care system, the VA serves an unusually stable patient population—veterans can move from place to place and job to job and still get the same VA health care. It’s also a rather well-known population. With persistence, an investigator could probably match today’s patients to Korean War draft records.

“But we’re more interested in going forward, focusing on chronic disease management, methods of health care delivery, what interventions improve functional status in patients with chronic disease,” says Rubins.

The VA population is also unique in its gender, of course: about 95 percent of the patients are men. Rubins estimates the Minneapolis VA cares for about 1,200 women.

Nichol says she expects to complete the 80,000-subject survey this fall. And previous VA mail surveys lead her to expect a remarkable response rate—70 to 80 percent after two mailings.

“Then we can follow these people for life,” says McBean. “That’s the cool thing about it.”

by Phil Norcross

For more information, call the Center for Chronic Disease Outcomes Research at 725-2000 ext. 3563.

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

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**Please send your new citations to
phil@ortta.umn.edu.**

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

Department of Commerce

National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST), Materials Science and Engineering Laboratory, is continuing its program for grants and cooperative agreements in the following fields of research.

Ceramics: ceramic processing, tribology, composites, machining, interfacial chemistry, and microstructural analysis.

Polymer sciences: polymer blends, composites, electrical applications, and dental and medical polymeric materials; through research on metrology, synthesis, processing and characterization of structure, mechanical, thermal, and electrical properties.

Metallurgy: predict, measure and control transformations, phases, microstructure, and kinetic processes, as well as mechanical, physical, and chemical properties in metals and their alloys. Also to develop new and improved sensors, measurement techniques, and analytical models for metallurgical structures and processes in order to facilitate the development and adoption of intelligent processing systems for materials.

Neutron scattering research, and spectroscopy: the NIST Center for Neutron Research supports high-resolution cold and thermal neutron research approaches and related physics, chemistry, macromolecular, and materials applications.

A total of \$500,000 is available to all projects funded under this program for up to three years. No matching is required.

The application deadline is **September 30, 1998**. Contact addresses and telephone numbers are listed in the announcement, which is available from ORTTA and which may be requested by calling 624-0061 or sending to gopher@ortta.umn.edu. Application materials may be obtained by calling Patty Salpino at 301/975-5731.

National Science Foundation

Digital Government

The federal government is a major user of information technologies, a collector and maintainer of very large data sets, and a provider of critical and often unique information services to individuals, states, businesses, and other customers. The coming decade will see the potential for access to these services by citizen-customers using highly capable digital information/entertainment appliances. Citizens will expect a government that responds quickly and accurately while ensuring privacy. As society relies more and more on network technologies, it is essential that the federal government make the most effective use of improved technologies.

There is an immediate opportunity for research communities to speed innovation, development, deployment, and application of more advanced technologies into usable systems. By supporting mid- to long-term research, development, and experimental deployment, fundamental limitations encountered in applying information technology to federal information services can begin to be addressed. Within this context, the objective of the Digital Government Program is to support projects that effectively and broadly address through research the potential improvement of agency, interagency, and intergovernmental operations and government-citizen interaction.

Examples of project areas are 1) intelligent information integration; 2) very-large-scale data and information acquisition and management for geospatial and multidimensional data; 3) advanced analytics for large datasets/information collections; 4) electronic transaction and electronic commerce technologies; 5) information services for citizen-customers; 6) research in the application of information technology to federal law and regulation; and 7) other cross-agency topical and technical areas and related activities.

The program will support standard NSF research projects, domain-specific cross-agency pilot projects or testbeds, human development activities (e.g., sabbaticals, student internships), and workshops and other community-building technology exchanges. Preparatory to proposals for pilot projects or testbeds, the program will support planning grants of up to \$50,000 for one year.

The first deadline will be **September 1, 1998**. Thereafter, the deadline will be March 1, annually. The announcement may be found at <http://www.nsf.gov/pubs/1998/nsf98121/nsf98121.htm>.

■ National Science Foundation Special Projects in Networking

Special Projects in Networking provides increased opportunities in support of research in areas of electronic networking, emphasizing their importance in the emerging convergence of communications and computing. Special Projects meets this goal by funding 1) larger and/or more multidisciplinary networking in theoretical and experimental research projects than are typically supported, 2) specialized infrastructure for networking systems research, and 3) mechanisms for developing research agendas and enhancing community development.

Research projects that are theoretical or experimental in nature must focus on networking research and may also include relevant research from other areas of computer science and engineering such as communications, distributed systems, operating systems, databases, software, signal processing, control theory, and devices.

The program expects to make five to seven research grants. Budgets are expected to average between \$200,000 and \$500,000 per year, although not necessarily at uniform levels each year, for two to four years. Proposals may include requests for support for research time for individual PIs, postdoctoral researchers, graduate students, equipment, testbed development, salary for technical support personnel, and indirect costs.

Potential proposers should discuss their research ideas with the program manager (see below), preferably with a one- to two-page e-mail summary describing the overall project, or by phone.

Annual deadlines are **February 15** and **August 15**. The program manager is Dr. Darlene Fisher, 703/306-1949, dlfisher@nsf.gov, fax 703/306-0621. The program announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf98120>.

■ National Science Foundation Biological Research Collections

Collections of both extant and fossil organisms, their tissues, and artifacts are critical resources for research in many scientific disciplines. The Biological Research Collections (BRC) program provides support for collection improvement, for collection computerization, for research to develop better techniques of curation and collection management, and for collections' community-based development undertakings. It also provides limited supplemental support for the participation of college un-

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dergraduates and high school students in research-oriented collections activities.

The program expects to make as many as forty awards. Award amounts may not exceed \$500,000; average award size is approximately \$150,000. Curatorial and management techniques research awards will not exceed \$50,000; conference, symposium, and workshop proposals should not exceed \$25,000; small grants for exploratory research may not exceed \$100,000.

Proposals will be accepted from U.S. institutes, including colleges and universities, that maintain research collections, natural history museums, including herbaria, and other collections administered by independent organizations or by state, county, or local governments.

The next deadline is the first Friday in September (**September 4, 1998**). The program announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf98126>.

■ Department of Energy Comprehensive Test Ban Treaty R&D

The U.S. Department of Energy (DOE) is inviting applications for projects contributing to the mission of the Comprehensive Test Ban Treaty research and development program. The program supports R&D necessary to provide government agencies responsible for monitoring or verifying treaty compliance with technologies, algorithms, hardware, and software for integrated systems to detect, locate, identify, and characterize nuclear explosions at the thresholds and confidence levels that meet U.S. requirements cost-effectively. Priorities are the advance of seismic, infrasound, radionuclide, and hydroacoustic knowledge and capabilities.

Up to \$1 million is available for multiple awards. Grants generally will range from \$100,000 to \$500,000 for up to three years.

The application deadline is **September 30, 1998**. For further information contact Michael Loera, Energy Department, Albuquerque Operations Office, PO Box 5400, Albuquerque, NM 87185-5400; 505/845-4302, <http://www.ctbt.rnd.doe.gov/coordination/>.

■ Environmental Protection Agency Airborne Particulate Matter Centers

The Environmental Protection Agency is inviting applications to establish research centers to study priority issues relating to particulate matter (PM), specifically exposure, dosimetry and extrapolation modeling, toxicology, and epidemiology.

Exposure research should address the relationship between ambient PM and personal exposure to PM in potentially susceptible subpopulations, such as the elderly, individuals with respiratory or cardiovascular disease, and children.

In dosimetry and extrapolation modeling, EPA seeks new dosimetry models to reduce uncertainty about the pulmonary deposition and cell-specific dose of PM and PM-associated constituents, to establish a link between individual PM exposures and health responses of susceptible subpopulations.

Toxicology research should seek to identify PM causative constituents, understand the biological mechanisms by which PM hazardous constituents mediate adverse acute and chronic health effects associated with PM exposures (biological plausibility), and identify host factors associated with enhanced susceptibility to PM health effects.

Epidemiological studies should identify subpopulations that are particularly susceptible to the adverse acute and chronic health effects associated with PM exposure, and reduce the uncertainty about the effects of chronic PM exposure.

\$8 million is available to fund five centers at \$1.5 million a year for up to five years. Eligible applicants are U.S. academic nonprofit organizations, and state and local governments.

The application deadline is **October 28, 1998**. For general information or a copy of the solicitation, call 800/490-9194 or go to <http://es.epa.gov/ncerqa/rfa/alpmcent.html>. For program information contact Deran Pashayan, Environmental Protection Agency, National Center for Environmental Research and Quality Assurance (8703R), 401 M Street SW, Washington, DC 20460; 202/564-6913, pashayan.deran@epamail.epa.gov.

■ Social Science Research Council

The Social Science Research Council (SSRC) is an independent, nongovernmental, not-for-profit, international association devoted to the advancement of interdisciplinary research in the social sciences. It pursues this goal through a wide variety of fellowship and grant programs, conferences, workshops, summer training institutes, research projects, and publications. SSRC gives priority to projects that seem likely to gain from the contribution of several disciplines, show promise of responding to collaborative effort and discussion, and lend themselves to transnational and/or comparative approaches.

International areas are broken down into the following: Africa, China, Eastern Europe, Eurasia, Europe, Japan, Latin America, Near and Middle East, South Asia, Southeast Asia, United States.

Eligibility requirements vary from program to program. Awards are made directly to individuals, with the exception of the institutional grants offered under some programs.

Deadlines also vary from program to program. The first deadline is **September 1, 1998**, and others follow through March 5, 1999. Potential applicants may write to Social Science Research Council, 810 Seventh Avenue, New York, NY 10019; 212/377-2700, fax 212/377-2727, <http://www.ssrc.org>.

■ Department of Justice

Office of Juvenile Justice and Delinquency Prevention Comprehensive Program Plan

The Office of Juvenile Justice and Delinquency Prevention (OJDDP) is publishing its final program plan for FY 1998 and announces the availability of the FY 1998 discretionary program announcements and the FY 1998 OJJDP application kit.

The final program plan may be found in the *Federal Register*, No. 116, June 17, 1998. The discretionary program announcement, and/or the application kit may be requested from the Juvenile Justice Clearinghouse 800/638-8736 or you may send an e-mail to askncjrs@ncjrs.org. The publications are also available online at <http://www.ncjrs.org/ojjhome.htm>.

■ NASA

Space Life Sciences

The National Aeronautics and Space Administration is inviting applications for two programs in the space life sciences: gravitational biology and ecology, and biomedical research and countermeasures.

NASA seeks gravitational biology and ecology research to determine how gravity shapes life, and how life responds to gravity or its absence, by identifying the mechanisms by which evolution, development, cell processes, physiological systems, and organisms respond and adapt to gravity. 1999 priorities include ground-based research in developmental biology and evolutionary biology, and flight research in cell biology, avian development, and neuroscience. Biomedical research emphases are physiology and behavioral research, biomedical countermeasures, operational and

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University of Minnesota

Writing Intensive Proposals

Beginning in the fall of 1999, the delivery of writing instruction at the University of Minnesota will undergo fundamental change. In the past, the English Department, Rhetoric Department, and General College have borne primary responsibility for teaching writing. After fall 1999, every undergraduate department in the university will share in that responsibility. Therefore, writing intensive courses must be designed.

Writing intensive courses, as understood by the Council on Liberal Education, are defined as courses at either the upper- or lower-division level in which the course grade is directly tied to the quality of a student's writing as well as to knowledge of the subject matter, so that students cannot pass the course who do not meet minimal standards of writing competence.

To propose a course for writing intensive status, the following information must be received:

- Department designator
- Course Number
- College
- Course title
- Name of the preparer (if other than the sponsor)

(500-character limit per question.)

- How does assigning a significant amount of writing serve the purposes of this course?

clinical research, environmental health, and space radiation health.

All categories of U.S. institutions are eligible for support. The solicitation is being coordinated with others from the European Space Agency and the space agencies of Canada, France, Germany, and Japan. NASA's criteria for considering other foreign proposals are detailed in the solicitation. Grants will range up to \$350,000 a year for up to three years.

Letters of intent are due **August 3, 1998**, with full proposals due on **October 1, 1998**. The solicitation may be accessed at <http://peer1.idi.usra.edu/>. Refer to NRS 98-HEDS-02.

- What types of writing (e.g., research essays, formal lab reports, journaling) are likely to be assigned?
- What types of instruction will students receive on the writing aspect of the assignments?
- How will the students' grades depend on their writing performance?
- If graduate students or peer tutors will be assisting in this course, what role will they play in regard to teaching writing, and how will they be trained and supervised?

(1500-character limit)

- Please include a sample assignment handout for a paper that students will revise and resubmit after receiving feedback on the initial draft.

Questions may be directed to Laurel Carroll, 160 Morrill Hall, 1-carr@tc.umn.edu. Proposals should be sent to her office or by e-mail to CLEwrit@tc.umn.edu. Proposals will be reviewed as they are received, beginning in July. The final submission deadline is **October 23, 1998**. Proposals received after the deadline will be in danger of arriving too late for offering in fall 1999. A complete copy of the announcement may be requested from yen@boombox.micro.umn.edu.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Phil Norcross at ORTTA, phil@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
May 1998	347	\$ 71,007,560
Awards Processed		
May 1998	159	25,095,153
Proposals Submitted		
July 1997 - May 1998	3,644	753,932,073
Awards Processed		
July 1997 - May 1998	2,701	341,574,219
Proposals Submitted		
July 1996 - May 1997	3,379	583,698,270
Awards Processed		
July 1996 - May 1997	2,669	297,986,148

Electrophysiological Equipment

Charles A. Nelson, Child Development
Michael Georgieff, Pediatrics

Minnesota Medical Foundation
\$15,000 - 5/1/98-4/30/99

Cell Wall Components in Enterococcal Endocarditis

Gary Dunny, Biological Process Technical Institute
Patrick M. Schlievert, Microbiology

NIH, NHLBI
\$182,434 - 4/1/98-3/31/99

Lysine and Threonine Production

Richard S. Hanson, Microbiology

Sota Tec Fund
\$51,400 - 4/27/98-4/1/99

Proposal for Acquiring a TLX Ultracentrifuge

Laura J. Mauro, Biochemistry
Alex J. Lange, Biochemistry

Minnesota Medical Foundation
\$20,000 - 5/1/98-4/30/99

Impact of Anti-Integrins on Streptococcal Invasion of Human Cells

Paul P. Cleary, Microbiology

Dupont Merck Pharmaceutical Co.
\$17,640 - 1/1/97-12/31/99

Abused Drugs and Development of the Neuroimmune Axis

Lisa M. Schrott, Pharmacology
Sheldon B. Sparber, Pharmacology

NIH, NIDA
\$99,903 - 5/1/98-4/30/99

A Study to Assess Fluvastatin Slow-Release Administered Daily at Bedtime to Patients with Hypercholesterolemia

Donald B. Hunninghake, Pharmacology
Larry W. Kotek, Medicine

Novartis Pharmaceuticals Corp.
\$91,188 - 1/1/98-5/31/99

Trial to Evaluate the Separate and Combined Effects of Zocor and Prempro on Serum Lipid Among Postmenopausal Women with Hypercholesterolemia

Donald B. Hunninghake, Pharmacology
Larry W. Kotek, Medicine

Merck
\$47,750 - 1/8/98-9/7/98

Study to Evaluate Simvastatin Therapy in Patients with Hypertriglyceridemia

Donald B. Hunninghake, Pharmacology
Larry W. Kotek, Medicine

Merck
\$32,928 - 2/23/98-10/22/98

Hexahydrocolypulone (HHC): A Novel Antimicrobial Agent

Louise M. Nutter, Pharmacology

Kalsec, Inc.
\$20,000 - 2/16/98-2/15/99

Cell Surface Control of Tissue-Factor-Initiated Blood Coagulation

Ronald Bach, Laboratory Medicine and Pathology

Minnesota Medical Foundation
\$14,000 - 5/1/98-4/30/99

Filgrastim in Patients with Pneumonia and Severe Sepsis

David H. Ingbar, Medicine
Peter B. Bitterman, Medicine
Christine Wendt, Medicine

Amgen
\$141,000 - 12/12/97-12/11/98

Differential Mapping of Cardiac Cellular mRNA and Protein

Jianyi Zhang, Medicine

Skye Pharmatech, Inc.
\$103,920 - 12/1/97-11/30/98

Sickle Cell Disease Therapy

Robert P. Hebbel, Medicine

Hospital for Sick Children
\$80,903 - 9/30/97-8/31/98

Study of Iloprost Clathrate Extended-Release Capsules in Patients with Peripheral Arterial Occlusive Disease

Alan Hirsch, Medicine

Berlex Laboratories Inc.
\$80,712 - 3/1/98-2/28/99

Detection and Prognosis of Gastrointestinal Micrometastases

Samuel Ho, Medicine
Robert Kratzke, Medicine

Minnesota Medical Foundation
\$7,300 - 6/1/98-5/31/99

Study of Rasagiline in Early Parkinson's Disease

Paul J. Tuite, Neurology

Teva Pharmaceutical Industries, Inc.
\$120,680 - 5/1/97-10/31/99

Clinical Investigation of Deep Brain Stimulation for the Treatment of Tremor Using the Medtronic Model 3387 DBS™ and ITREL® II System

Paul J. Tuite, Neurology

Medtronic, Inc.
\$10,000 - 12/15/97-12/14/98

Ubiquitination in Breast Cancer

Benjamin S. Leung, Obstetrics and Gynecology

Minnesota Medical Foundation
\$9,200 - 6/1/98-5/31/99

Cartilage Strength in Mice by Microscratch

Jack L. Lewis, Orthopaedic Surgery
Douglas Adams, Orthopaedic Surgery
Theodore R. Oegema, Jr., Orthopaedic Surgery

Arthritis Foundation, Minnesota Chapter
\$12,781 - 1/1/98-12/31/98

Biomechanics of Hand Tendon Transfer
Ann Van Heest, Orthopaedic Surgery
Minnesota Medical Foundation
\$4,000 - 5/1/98-4/30/99

C3-Binding and -Degrading Proteins in *Streptococcus pneumoniae*
Catherine M. Bendel, Pediatrics
Wyeth-Ayerst Research
\$171,333 - 2/1/98-2/1/00

Pivotal Study of Mobilized Peripheral Blood Progenitor Cells
John Wagner, Pediatrics
Cellpro, Inc.
\$48,000 - 1/23/98-1/22/00

Real-Time Quantitative PCR Core Facility
Chester B. Whitley, Pediatrics
Minnesota Medical Foundation
\$20,000 - 5/1/98-4/30/99

An Open-Label Clinical Trial for Patients with Acute GVHD Who Have Previous Exposure to ABX-CBL
Bruce Blazar, Pediatrics
Abgenix, Inc.
\$18,148 - 4/23/98-4/22/99

Equipment Grant: Metabolic Cart for the Clinical Research Center
David M. Brown, Pediatrics
John Bantle, Medicine
Minnesota Medical Foundation
\$13,815 - 5/1/98-4/30/99

Lisofyllin's Ability to Modify the Toxicity of Lung Injury Caused by the Use of Cyclophosphamide and Total Body Irradiation
Bruce Blazar, Pediatrics
Cell Therapeutics, Inc.
\$5,250 - 5/4/98-5/3/99

Consensus Conference
Theora Evans, Pediatrics
W. K. Kellogg Foundation
\$5,000 - 3/1/98-2/28/99

Evaluation of Continuous Abstinence at 3, 6, and 12 Months After the Quit Date in Nicotine/Mecamylamine Transdermal Studies
Dorothy Hatsukami, Psychiatry
Sano Corp.
\$13,160 - 7/15/97-4/16/98

Caffeine Use, Effects, and Dependence in Adolescents
Gail A. Bernstein, Psychiatry
Minnesota Medical Foundation
\$7,852 - 5/1/98-4/30/99

In Vivo Evaluation of Alternatives to Coronary Artery Bypass
Richard W. Bianco, Surgery
Scimed Life Systems, Inc.
\$45,142 - 9/16/97-9/15/98

Characterization of Cytochrome Oxidation Measurements in Blood and Non-Blood Perfused Isolated Porcine Heart and Kidney Using the HTI Biospectrometer Device
Richard W. Bianco, Surgery
Hutchinson Technology Inc.
\$42,270 - 6/15/97-6/14/99

Below-the-Lens Field Emission Scanning Electron Microscope for Secondary and Backscatter Electron Imaging of Large Bulk Samples
Stanley Erlandsen, Cell Biology and Neuroanatomy
National Science Foundation
\$241,000 - 06/01/98-05/31/00

OSHA Nursing Internship
Patricia McGovern, Environmental and Occupational Health
U.S. Department of Labor
\$6,500 - 5/26/98-7/17/98

Dietary Intervention Methods for Clinical Trials
Robert W. Jeffery, Epidemiology
NIH, NHLBI
\$347,829 - 5/1/98-4/30/99

Use of Incentives to Recruit Teens for Smoking Cessation
Brian Martinson, Epidemiology
NIH, NCI
\$54,689 - 5/1/98-4/30/99

Victims' Services
Amos S. Deinard, CUHCC
St. of Minn., Department of Corrections
\$135,100 - 7/1/97-6/30/98

Collaborative Rural Nurse Practitioner Project
Christine Mueller, Nursing
St. of Minn., Office of Rural Health and Primary Care
\$250,000 - 1/1/98-12/31/98

The Effect of Polymer Bonded to Enamel in Orthodontics
William F. Liljemark, Oral Sciences
Minnesota Dental Research Center for Biomechanics and Biomaterials
\$14,640 - 1/15/98-1/14/99

Calcium Signaling in the Mammalian Lens
Charles F. Louis, Veterinary Pathobiology
NIH, NEI
\$256,414 - 4/1/98-3/31/99

Dynamic Calcium Regulation in Airway Smooth Muscle
Mathur S. Kannan, Veterinary Pathobiology
Timothy F. Walseth, Pharmacology
NIH-National Institutes of Health
\$219,619 - 4/1/98-3/31/99

Prevalence of Parasites in Dairy Cattle in Minnesota
Bert E. Stromberg, Jr., Veterinary Pathobiology
Jeff Reneau, Animal Science
Meril Limited
\$17,103 - 9/15/97-12/15/97

Heterogenous Catalytic Hydrogenation of Polymers
Frank S. Bates, Chemical Engineering and Materials Science
Marc A. Hillmyer, Chemistry
Dow Chemical Co.
\$6,976,800 - 11/12/97-11/11/98

Automatic Passenger Counting in the High-Occupancy Vehicle
Nikolaos Papanikolopoulos, Computer Science and Engineering
St. of Minn., Department of Transportation
\$164,160 - 3/23/98-6/30/99

GroupLens
John Riedl, Computer Science and Engineering
Joseph Konstan, Computer Science and Engineering
Net Perceptions, Inc.
\$20,000 - 10/13/97-9/14/98

Development of a Commercial Content-Based Retrieval Product
Ahmed H. Tewfik, Electrical Engineering
Sota Tec Fund
\$200,000 - 4/1/98-3/31/99

Silkworm Switch FL-port Testing and Performance Characterization
Matthew T. O'Keefe, Electrical Engineering
Brocade Communication Systems, Inc.
\$20,000 - 4/1/98-10/15/98

Faculty Research, Training, and Service Awards

Experimental Study of Basin Stratigraphy

Christoph Paola, Geology and Geophysics
National Science Foundation
\$168,070 - 5/1/98-4/30/00

Jordan Sandstone Lithostratigraphy and Aquifer Properties

David L. Southwick, Geology and Geophysics
St. of Minn., Department of Health
\$50,115 - 5/15/98-5/14/99

Mississippi Corridor Modeling

David L. Southwick, Geology and Geophysics
St. of Minn., Department of Health
\$19,665 - 5/15/98-5/14/99

Women's Opportunities in New Directions: Explorations and Research

Harvey B. Keynes, Mathematics
Mathematical Association of America
\$3,000 - 3/25/98-3/24/99

Lysine and Threonine Production

Kenneth Valentas, Biological Process Technical Institute
Sota Tec Fund
\$151,000 - 4/27/98-4/1/99

Diversity and Trophic Structure in a Grassland Community

Shahid Naeem, Ecology, Evolution, and Behavior
National Science Foundation
\$210,000 - 5/1/98-4/30/01

Dissertation Research: Paleocology of Southern California

Margaret Davis, Ecology, Evolution, and Behavior
Eugene Wahl, Genetics and Cell Biology
William Cummingham, Genetics and Cell Biology
National Science Foundation
\$9,000 - 5/1/98-4/30/00

Cross-Cultural Poetics

Maria Damon, English Language and Literature
Minnesota Humanities Commission
\$1,460 - 9/24/97-12/1/97

The Fate of Knowledge

Helen Longino, Philosophy
National Science Foundation
\$40,583 - 4/1/98-3/31/99

Application of HTE Ozone in Beef Processing

Roger Ruan, Biosystems and Agricultural Engineering
Agricultural Utilization Research Institute
\$15,000 - 4/21/98-8/31/98

Assessment of Lignin Removal

Robert Blanchette, Plant Pathology
North Carolina State University
\$5,814 - 10/1/97-9/30/98

Effect on Driver Performance of Advanced Warning

Flashers

Michael G Wade, Kinesiology and Leisure Studies
Thomas J. Smith, Kinesiology and Leisure Studies
St. of Minn., Department of Transportation
\$30,976 - 4/27/98-7/31/99

Development of Upper-Body and Arm Power Endurance in Adolescent Cross Country Skiers

Robert C. Serfass, Kinesiology and Leisure Studies
United States Olympic Committee
\$26,000 - 5/1/98-12/31/98

Multicountry Analysis of the Impact of Unwantedness

Dennis A. Ahlburg, Carlson School of Management
Futures Group International
\$52,499 - 6/16/97-9/1/98

Employment of RS Service Specialist

Sue Kroeger, Disability Services
St. of Minn., Department of Economic Security
\$20,738 - 10/1/96-9/30/97

The Minnesota Manufacturers Telecommunications Network

Bruce Brorson, Division of Management, Crookston
Minnesota Technology, Inc.
\$200,000 - 1/1/98-12/31/98

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Research Subjects' Protection Programs, fax 626-6061			
Director	Moira Keane	626-5654	irb@umn.edu

Mailing List Changes

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For faculty changes, please call Staff Demographics, 200 Donhowe Bldg., 612/624-8374.
(Faculty labels are the ones with a string of numbers printed above the addressee's name.)

For changes regarding other labels, please complete the following:

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RESEARCH REVIEW

Office of Research and Technology Transfer

August 1998

In-Ovo, Three-Disease Vaccine Proven Effective

Now it Needs Capital in Order to Reach Poultry Producers

In the poultry business, most chicks get vaccinated in the egg, before they hatch. Thus they are born with special immunity to Marek's disease, one of the worst ailments in their industry.

Vaccinating eggs against Marek's provides four-times the protection of post-hatch vaccination, largely because it protects on day one. Vaccinating after hatch means waiting three days for immunity to take hold, and being near help- less against infection in the meanwhile.

Just five years after the automation of in-ovo vaccination, in- ovo Marek's vaccine protects about 85 percent of U.S. chickens. Inoculating eggs in trays by the thousands is also a great deal safer, simpler, and cheaper than sticking a hypo- dermic into each and every chick by hand. The patented machinery is up and running on six continents, according to its manufacturer, Embrex Inc.

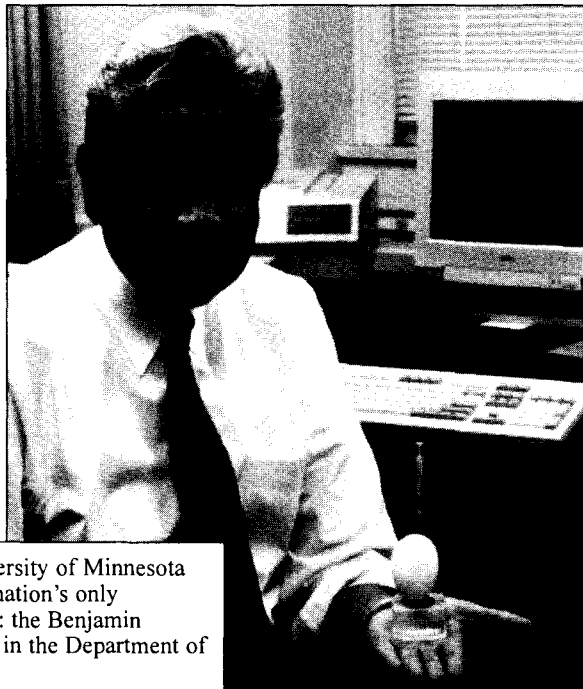
But thus far eggs get vaccinated against Marek's disease only; for other protection, chicks have to wait till they hatch.

The repertoire will soon be ex- panded, however, by one of the original inventors of in-ovo vaccina- tion—Jagdev Sharma of UM's Department of Veterinary PathoBiology. With a single injection to an egg, he can now produce a chick equipped at birth to resist *three* of the most destructive poultry diseases—Marek's disease, infectious bursal disease (IBD), and Newcastle disease. U.S. and for- eign patents are pending, and Sharma is working toward USDA approval.

Marek's disease, probably the single worst enemy of North American chickens, is a viral infection that causes lymphoma and spinal lesions. Laying and breeding hens die young; broiler carcasses get "condemned," as they say in the business. Before the first vaccine arrived 1969, an outbreak

Jagdev Sharma joined the University of Minnesota in 1988, when he accepted the nation's only endowed chair for poultry work: the Benjamin Pomeroy Chair in Avian Health in the Department of Veterinary PathoBiology.

Pomeroy is a professor emeritus in the department; the chair was endowed by the Minnesota poultry industry.



{continued on page 6}

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 2

August 1998

Editor: Phil Norcross

Editorial Assistant: Tove Jespersen

Interim Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Phil Norcross, 612/625-2354, phil@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr + 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr + 8.7%
Summer quarter TA, RA, AF	— 8.7%
Summer session TA, with tuition	\$12.44/hr + 8.7%
Summer session TA, without tuition	— 8.7%
Professional program assistant	— 8.7%
Dental fellow *	\$4.30/hr —
Medical fellow *	\$3.30/hr —

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Business Services office; call Vivian Fickling, 612/624-2009.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Phil Norcross, editor, 612/625-2354, phil@ortta.umn.edu.

Patents Issued

April 1998 through June 1998

Phase Grating and Mode-Selecting Mirror for a Laser

A custom diffractive mirror for a laser resonator
James Leger, Electrical & Computer Engineering

Spin-valve Magnetoresistance Sensor

For measuring weak magnetic fields
Dan Dahlberg, Timothy Moran, Physics & Astronomy

Nanoimprint Lithography

For programming nanoelectronic devices
Stephen Chou, Electrical & Computer Engineering

Radionuclide Labeling of Vitamin B12 and Coenzymes

For in vivo imaging of organs and tumors
Henricus Hogenkamp, Biochemistry;
Douglas Collins, outside UM

Synthesis of Acetogenins

For producing an anti-tumor compound
Thomas Hoye, Zhixiong Ye, Chemistry

Gene Sequence for Spinocerebellar Ataxia Type 1 and Method for Diagnosis

For diagnosing a neurodegenerative disease
Laura Ranum, Neurology; Ming-Yi Chung, Harry Orr, Laboratory Medicine & Pathology; Huda Zoghbi, outside UM

Use of Betulin and Analogs Thereof to Treat Herpesvirus

For treating herpesvirus infections in mammals
Robert Carlson, Chemistry; Reza-Ul Karim, Biology; Pavel Krasutsky, Natural Resources Research Institute—all of UM
Duluth

Preparation of Optically-Active Isomers of Dideoxycarbocyclic Nucleosides

A therapeutic method employing an antiviral compound
Robert Vince, Mei Hua, Medicinal Chemistry

Vapochromic Platinum-Complexes and Salts

For chemical, physical, and environmental monitoring
Kent Mann, Charles Daws, Christopher Exstrom, Daron Janzen, Marie Pomije, Chemistry

Polypeptides with Type I Collagen Activity

To aid in development of medical devices
Gregg Fields, Leo Furcht, James McCarthy, Laboratory Medicine & Pathology

Technology Transfer Agreements

April 1998 through June 1998

Microscale Mass Spectrometer

For chemical analysis of air in respiration or hazardous environments
Ronald Gentry, Chemistry; Jorge a Diaz Diaz, Microtechnology Laboratory;
Clayton Giese, Physics & Astronomy
Exclusive option agreement with Mass Sensors, LLC, St. Louis, Mo.

Phase Grating and Mode-selecting Mirror for a Laser

A custom diffractive mirror for a laser resonator
James Leger, Electrical & Computer Engineering
Nonexclusive option agreement with Coherent, Inc., Santa Clara, Calif.

Apparatus and Method for Shaping and Detecting a Particle Beam

For detecting particles in a gas, for use in, for example, manufacture of microelectronics
Paul Ziemann, Peng Liu, David Kittelson, Peter McMurry, Nagaraja Rao, Mechanical Engineering
Nonexclusive license agreement with TSI Inc., St. Paul

Particle Charging Apparatus and Method of Charging Particles

For measurement and control of particle streams in pollution control and manufacturing
David Pui, Da-Ren Chen, Mechanical Engineering
Exclusive license agreement with TSI Incorporated, St. Paul

Hybrid Filter for Reducing Distortion in a Power System

For reducing distortion in electric utility grids
Mukul Rastogi, Ned Mohan, Electrical & Computer Engineering
Exclusive licensing rights to Electric Power Research Institute (EPRI), Palo Alto, Calif.

METIS

Software for statistical analysis and graph-making
George Karypis, Vipin Kumar, Computer Science & Engineering
Nonexclusive software license agreements with University of Texas-Austin;
Sun Microsystems Computer Company, Palo Alto, Calif.

{next page}

Monoclonal Antibodies Reactive with Native and Denatured Cytochrome c from Various Species

For protein separation and identification

Ronald Jemmerson, Microbiology

Nonexclusive license agreements with
Zymed Laboratories, Inc., South San Francisco, Calif.;
Biosource International, Inc., Camarillo, Calif.

C3 Binding Protein of *Streptococcus pneumoniae*

Part of the mechanism of pneumonia infection

Margaret Hostetter, Qi Cheng, Melanie Madsen, Lakshmi Nandiwada, David Finkel, Beverly Smith, Pediatrics; Gary Dunny, Microbiology

Exclusive license agreement, Wyeth-Lederle Vacc & Peds, West Henrietta, N.Y.

Nucleosides with Antiviral and Anticancer Activity

For treating cancer and viral infections

Carston Wagner, Pharmacy; Yusuf Abul-hajj, Medicinal Chemistry; Cheryl Zimmerman-Rommel, Pharmaceutics

Exclusive option agreement with Advanced Magnetics, Inc., Cambridge, Mass.

Substance P Receptor Histochemical Antisera

Antibodies for labeling receptors on neurons

Patrick Mantyh, Joseph Ghilardi, Preventive Sciences

Nonexclusive license agreements with
Advanced Targeting Systems, Carlsbad, Calif.;
Novus Biologicals, Inc., Littleton, Col.;
Calbiochem-Novabiochem Corporation, San Diego, Calif.

"Elder Health/Pra"

To identify elderly people at risk for health problems

Charles Boulton, Family Practice & Community Health

Nonexclusive software license to HCIA/Response, Baltimore, Md.

Enn49 IgA-binding Protein

A protein that binds to immunoglobulin, thus hindering immune response to the bacteria

Paul Cleary, Microbiology

Exclusive License Agreement with ReceptorPro, Inc., Toledo, Ohio

SCA7 Gene and Methods of Use

For diagnosis and research, a gene responsible for the neurodegenerative disorder spinocerebellar ataxia

Laura Ranum, Michael Koob, Kellie Benzow, Melinda Moseley-Alldredge, Neurology

Exclusive license agreement with Athena Diagnostics, Inc., Worcester, Mass.

Compositions of Biodegradable Natural & Synthetic Polymers

Biodegradable plastics for multiple uses

Mrinal Bhattacharya, Utpal Vaidya, Biosystems & Agricultural Engineering

Exclusive license agreement with International Wheat Gluten Association, Prairie Village, Kan.

"Members of the [University] administration are spending time identifying ways to improve technology transfer. They are holding 'fireside chats' with venture capitalists and business leaders to obtain impressions of the University and how it is doing. The President said he hoped to have a draft report on a technology transfer mechanism ready by the end of the summer that could be reviewed by the faculty." —from minutes of the June 23 joint meeting of the Faculty Consultative Committee and the Senate Committee on Finance and Planning.

Method of Grafting Functional Groups to Synthetic Polymers for Making Biodegradable Plastics

Biodegradable plastics for multiple uses

Mrinal Bhattacharya, Utpal Vaidya, John Jacob, Biosystems & Agricultural Engineering

Exclusive license agreement with International Wheat Gluten Association, Prairie Village, Kan.

Cellulose Fiber Based Compositions and Film and the Process for their Manufacture

Biodegradable plastics for multiple uses

Rongsheng (Roger) Ruan, Paul Ling Chen, Li Xu, Biosystems & Agricultural Engineering; Lun Yi, Paul B. Addis, Food Science & Nutrition; Jack Johnson, outside UM

Exclusive license agreement with Fiberstar, Inc., Kirkland, Wash.

Method and Culture for Inhibiting Undesired Microorganisms

A means of food preservation

Larry McKay, Carla Sanchez-Fernandez, Purbita Ray, Daniel O'Sullivan, Food Science & Nutrition; Ebenezer Vedamuthu, Barbara Holler, Elly Vlegels, Jeffrey Kondo, outside of UM

Exclusive option agreement with Quest International, Hoffman Estates, Ill.

Apple Tree: Honeycrisp

An extremely crisp, sweet apple that stores well

David Bedford, James Luby, Horticultural Science

Nonexclusive plant patent and trademark agreements with Stone's Throw Nurseries, Watervliet, Mich.;

Green Tree Nursery, La Grange, Calif.;

Sierra Gold Nursery, Yuba City, Calif.

Hollow Veneered Pole

A lightweight, wood-saving utility pole

Robert Erickson, Wood & Paper Science

Exclusive license agreement with HVP, LLC, Minneapolis

PigCHAMP

Software for commercial swine management

William Marsh, Roger Morris, Thomas Stein, Norman Williamson, Gerard Nimis, Clinical & Population Sciences

Exclusive software license to Jung P&C Institute, Seoul, South Korea

Research Animal Resources

Rodent Rederivation Services

Research Animal Resources and the Mouse Manipulative Genetics Laboratory of the Cancer Center are collaborating to provide rodent rederivation services by embryo transfer. The purpose of this service is to provide investigators with specific pathogen free (SPF) animals for use in their research or to facilitate transfer of animals to other institutions. Adventitious rodent viruses, bacteria, and parasites can affect the results of certain types of studies.

An investigator will need to provide five individually housed, fertile, heterozygous or homozygous male mice (8-12 weeks old) and five heterozygous or homozygous age matched female mice (21-25 days old) if homozygous animals are needed. Animals will be superovulated, and the embryos harvested and transferred into SPF females. The offspring will be tested for 21 different agents. The entire process takes approximately 16 weeks and will cost \$425 for the rederivation attempt and \$161 per re-derived litter for testing. Investigators are responsible for per-diem costs on all animals, except the embryo recipients.

For more information, or to make arrangements for rederivation, contact Dale Cooper at RAR (612/624-5462, coope019@tc.umn.edu) or Sandra Horn at the Cancer Center (612/626-5825, hornx001@tc.umn.edu).

Animal Tissue Sharing Program

Research Animal Resources maintains a database of investigators who have animal tissues they are willing to share with other investigators, and of investigators who are seeking tissues. Sharing tissues between laboratories is an excellent way of reducing the overall numbers of animals used in research and teaching. Tissues are cataloged according to species, tissue type, method of preservation, date available, date needed, and any manipulations that have been performed on the animal. Additional requests for tissue sharing may be made through the RAR-talk e-mail list.

For further information, contact RAR at 612/624-9100 or compmed@tc.umn.edu.

Dale M. Cooper, Research Animal Resources

Sponsored Projects Administration

Question: Do Pre-Proposals have to go through SPA?

Answer:

If the sponsor requires an institutional official to sign the pre-proposal, it must come through SPA. It's recommended that even those that don't require institutional endorsement be sent to SPA; at least send us an informational copy. ORTTA frequently gets questions from sponsors regarding pre-proposals. We can often answer them without bothering the PI or department staff if we have the pre-proposal.

A UM Application for External Research, Training or Public Service Support (formerly a "BA23") isn't required for pre-proposals, but will be necessary if the PI is invited to submit a full proposal. If a large project is planned involving multiple departments, it's a good idea to confirm that those other units are conceptually willing to commit. Although there other ways to do this, the proposal routing process provides an opportunity for review and documentation. If an application is done for the pre-proposal, it is not necessary to repeat the process for the full proposal unless resource needs change significantly.

Preliminary proposals are requested by sponsors for various reasons: sometimes just to count the number of proposals the sponsor should expect, or to pre-screen and limit the number of full proposals submitted for peer review. Our best advice is to wait on the UM application until submitting the full proposal, but if other units will be involved, get the buy-in of the department, and/or college, not just the co-PI, at the pre-proposal stage, in order to avoid any unpleasant surprises with the full proposal, or with the award.

by Todd Morrison, assistant director, SPA

NRC Committee Says to Fund Animal Facilities with Indirect Costs

In a recent report, the National Research Council recommends that research institutions be allowed to support their central animal facilities with funds from the indirect cost pool.

The NRC's argument is for consistency. Currently, the cost of animal care in an investigator's lab is considered part of the institution's indirect expenses, while fees for animal care at a central facility are part of the investigator's direct costs.

The recommendation is to charge centralized animal care as an indirect cost and include that expense when

calculating an institution's indirect cost rate. That accounting consistency would have the added benefit, says the NRC, of encouraging centralized animal care—"where the animal can receive better care and where it is easier and cheaper for an institution to meet all legally mandated standards."

"Approaches to Cost Recovery for Animal Research: Implications for Science, Animals, Research Competitiveness, and Regulatory Compliance" is an "interim" report written by an NRC committee. See the report at <http://www2.nas.edu/ilarhome/interim.html>.

Holly Jensen, *Washington Fax*, 16 July 1998

Sharma

{continued from page 1}

of Marek's would easily kill a quarter to a third of a flock, often more. In 1984, after vaccination but before *in-ovo* vaccination, Marek's cost U.S. poultry producers about \$170 million, and worldwide producers about \$940 million.

Golden Plump, in St. Cloud, hatches a million broiler chicks a week. Worldwide, commercial production is about 21 billion birds a year.

Sharma and Ben Burmester patented *in-ovo* vaccination in 1984, when they worked at the USDA poultry lab in East Lansing, Michigan. Embrex Inc. was created a year later in order to commercialize the Sharma-Burmester patent. Its Inovoject® machine began work on poultry farms in 1992; two years later the USDA reported that just 0.04 percent of broilers were condemned because of Marek's.

Embrex's current Inovoject® machines, designed to inoculate up to 50,000 eggs per hour on the 18th day of incubation, are working in 15 nations, from Ireland, to Turkey, to South Africa, to Australia, to Argentina, to

Japan. (Only three nations raise more poultry than Japan).

But the *in-ovo* machines are way ahead of the *in-ovo* vaccines. "Existing IBD and Newcastle vaccines have been modified for *in-ovo* vaccination," explains Sharma, "but only the Marek's vaccine is in use, and no one sells an *in-ovo* vaccine for multiple diseases."

Infectious bursal disease (IBD) suppresses poultry immune systems. In Europe in the late '80s, leghorn flocks were suffering 90 and 100 percent mortality because of IBD. Newcastle disease, a.k.a. pseudo-poultry-plague or avian distemper, comes in a confusion of varieties, with symptoms ranging from bleeding ulcers to respiratory infections. It's so contagious that it has inspired no end of

With a single injection to an egg, Sharma can produce a chick equipped at birth to resist three of the most destructive poultry diseases.

poultry trade restrictions—some nations even banned pigeon races in order to keep Newcastle out of their chickens.

{next page}

In Europe, Marek's is not the big problem, IBD is. Last year, Embrex got USDA approval of an in-ovo IBD vaccine. It and several other vaccines Embrex is developing are combinations of live virus and an antibody, dubbed "Virus Neutralizing Factor," that Embrex has licensed from the University of Arkansas.

Sharma's goal is "multivalent vaccines that will, by a single injection, protect chickens and turkeys against all or most of the commonly occurring diseases." To start with, his targets are all three common strains of Marek's disease, IBD, Newcastle disease, and reovirus in chickens; and Newcastle and hemorrhagic enteritis in turkeys.

In 1996, Sharma and colleagues reported success against Marek's and Newcastle by means of a "recombinant virus." They spliced genes from the Marek's and Newcastle viruses into a herpes virus from turkeys. The herpes virus, injected into chicken eggs, produced proteins that spurred immune reactions against Marek's and Newcastle.

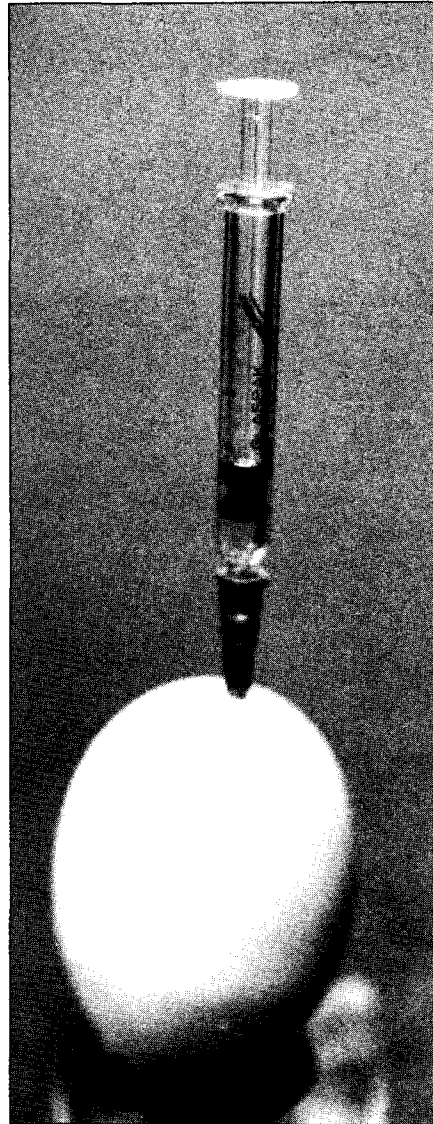
Now Sharma tries combinations of whole, attenuated viruses. "Combinations of live vaccines have been used in people for a long time, but they'd never been tried in chicken embryos," says Sharma. "You can't simply mix two syringe-fulls of existing vaccine; that's dangerous. They can become more virulent, or less effective. The trick is to learn how much virus the embryo can tolerate, yet still produce a protective immune response."

Sharma learns that trick by means of a precise routine of trial and error that he has perfected over 20 years, and with strict isolation of test subjects by means of a laboratory design he brought with him from East Lansing.

The protocol goes something like this: Inoculate eggs with a range of vaccine combinations. In the chicks that hatch, study the immune systems—T cells, B cells, lymphoid organs—for signs of immune response. For the promising subset, raise some poults, "challenge" them with exposure to dangerous viruses, and look for side effects, especially slow growth or suppression of immune responses to other diseases. Then do field tests under commercial poultry conditions. And keep trying until success is easily repeatable.

Then pursue FDA approval, licensing, manufacturing, and marketing.

A trial takes six to seven weeks, says Sharma, with 10 to 15 birds in a group. The birds live in Sharma's "isolation chambers"—42 fiberglass crates with environmental controls and ventilation systems that make the modern windowless office tower look simple.



Combining existing vaccines is no less expensive than developing new ones from scratch. Sharma's poultry vaccine work is chiefly supported this year by the Sota Tec Fund, which helps University researchers in order to create new businesses in Minnesota. To start in earnest toward USDA approval and commercial licensing, however, Sharma needs another two-year's worth of support, about \$200,000.

"The issue is hiring," says Sharma. "Poultry virology is a narrow specialty. It's hard to find help unless I can offer at least a three-year contract."

The utility of Sharma's work is clear: Commercial poultry operations raise 8 billion birds a year in the U.S., 21 billion worldwide.

In St. Cloud, Golden Plump hatches 250,000 broiler chicks a day, four days a week, according to Doug Jensen, director of veterinary services for the operation. Each bird gets vaccinated four times—sometimes via food or water, sometimes by injection. The life of a layer hen includes 12 vaccinations. "It's a pretty elaborate program," says Jensen, "but Newcastle is always a problem, and IBD is critical."

by Phil Norcross

Jagdev Sharma earned M.S. and Ph.D. degrees in animal virology at U.C. Davis, and a B.V.Sc. (equivalent to a D.V.M.) at Punjab University.

Last month, Sharma presented the research described here to the annual meeting of the American Association of Avian Pathologists, a division of the American Veterinary Medical Association.

What's New in Grants Management

an index to changes, answers, and announcements

"What's New in Grants Management," now appearing monthly in *Research Review*, will provide a complete index to news regarding grants management, including changes in policy, answers to common questions, and announcements of changes in practice at SPA and ORTTA.

Check "What's New" regularly for policy changes essential to proper and accountable grants management.

"What's New" will also be posted on ORTTA's web site, www.ortta.umn.edu; see "Today's News."

August 1998

(month 2 of UM fiscal year 1999)

SPA Update 9908 - Web provides new financial report: The Budget Variance Summary

Notice issued: 8/1/98 Supersedes: n.a.

Effective date: available immediately

Change:

The new Budget Variance Summary reports budget activity for a specific sponsored project by expense category for the current budget period. It shows the agency-approved budget, expenses, variance from current expense budget, and any amount over budget. This report is useful for monitoring budget activity for those projects with specific budget periods (within a multi-year project period) such as projects funded by NIH (DHHS) and USDE.

Action to take:

Access financial reports on the web at: <http://financial.reports.umn.edu>. A demo version of the report can be found with the *Demo* button at the bottom of the screen. If you need access to reports, call the FSS Helpline at 612/624-1617 or hit the *Forms* button and fill out the access form. See *Research Review*, August 1998, page 9.

SPA Update 9909 - Do pre-proposals have to go through SPA?

Notice issued: 8/1/98 Supersedes: n.a.

Effective date: available immediately

Change: n.a.

Action to take: See *Research Review*, August 1998, page 5.

SPA Update 9910 - Payment Vouchers (PV) available for electronic departmental entry

Notice issued: 8/1/98 Supersedes: n.a.

Effective date: available immediately

Change: n.a.

Action to take: See *Research Review*, August 1998, page 10.

Netscape - [Budget Variance Summary]

File Edit View Go Bookmarks Options Directory Window Help

Location: http://financial.reports.umn.edu/reports_demo/budvar.htm

UNIVERSITY OF MINNESOTA
Budget Variance Summary

Date: 06/12/98
Time: 08:20:54

Provides budget variance information for a specific sponsored project's CURRENT budget period.

Note specifically amounts in 'Agency Approved' column; the Percent Variance is calculated based on 'Agency Approved' changes compared to what has been expended.
Information as of: 05/31/98
User-Input: 123 6789 ALL

NOTE: If a column header is highlighted/underlined, you can Click on it for a definition

Please e-mail questions or comments to finreports@cafe.tc.umn.edu

Account Description

Fund:	1697 - UMT-NIH-GRANTS-LOC
Area:	123- RESEARCH DEPARTMENT
Org:	6789- SPONSORED PROJECT
Grantor:	05010110 - NIH-DIV OF RSRCH RESOURCES
PI Name:	MAGNUM P.I.
Project Period:	01/01/95 -12/31/98
Budget Period:	01/01/97 -12/31/97

Agency Approved Budget

<u>Object</u>	<u>Expense Category</u>	<u>Awarded Budget (a)</u>	<u>Carry Forward (b)</u>	<u>Budget For Prior Encumbrances (Obligations) (c)</u>	<u>Agency Rebudget (d)</u>	<u>Subtotal (a thru d) (e)</u>	<u>Other Internal Rebudgets (g - e)</u>	<u>Current Expense Budget (g)</u>	<u>Expenses (h)</u>	<u>Percent Variance (h / e)</u>	<u>Over Budget Amounts (h - e)</u>
7000	ACAD SAL	61,526.00	0.00	0.00	(13,806.00)	47,720.00	0.00	47,720.00	40,484.15	85%	**
7005	ACAD SAL STD	0.00	6,540.00	0.00	0.00	6,540.00	0.00	6,540.00	69.52	1%	**

Document Done

Grants Management Project

Web Provides New Financial Report: The Budget Variance Summary

Do you find it difficult to monitor changes to your project's budget since it was awarded?

How does your current rate of spending match with the budgeted amount approved by the agency?

These are just two of the questions that can be easily answered with the latest of the sponsored financial reports: the Budget Variance Summary. This report displays budget and expense category totals for your current budget period. The total amount spent is then compared with the approved budget total to calculate a percentage spent. This percentage assists with monitoring variances and overexpenditures in your line items.

Budget variance summaries are provided for each grant.

Who can view these reports?

These reports were designed for use by principal investigators, administrators, and accountants responsible for managing sponsored projects.

We encourage you to check out samples of this and other sponsored reports at the Financial Reports web page. The address is <http://financial.reports.umn.edu>. Click on the Demo button.

How do you gain access to your own grant information?

You may either contact the FSS Helpline at 612/624-1617 for an access contract or you may select the Forms button on the Financial Reports web page.

If you already have access and wish to try the report using one of your CUFS area accounts, the report is listed with the other Sponsored Financial reports on the web (same address as above, except select the Sponsored button).

Please note: This report is currently available only for NIH, USDE, NIH subcontracts, and new grants effective 3/15/98 or later.

EGMS is Real

Since July 1, 1997, the electronic grants management system (EGMS) has been operational. Many faculty and administrators across the campus have utilized it to prepare their proposals to the NIH and the NSF. The option to use the tool to prepare a generic proposal is also now available. Probably the most prevalent use has been of the Proposal Routing Form (formerly known as the BA23), because that document is no longer available from U Stores.

However, some people are still not sure that this system is real, so they are reluctant to give it a try. But it is! Even if you are not ready to prepare an actual proposal for submission, you can still try out the system. You can use a previously submitted proposal to try out the many features of EGMS, and then, if you wish, you can then delete your test proposal. This will not jeopardize the system in any way. All that is needed to access the system is their x.500 user ID and password.

One of the key aspects of EGMS is the fact that you are not just filling out a form, but are actually populating a database that can be used in other systems. In working through the questions in the EGMS proposal preparation site, you put into place a database of information about your proposal that is saved and can be used again during the course of the grants management process.

Another feature is that EGMS provides quick, accurate calculations for budget items including fringe benefits, indirect costs, and inflation because correct rates are embedded in the system. EGMS also has an audit function, that makes sure that calculations are done accurately and that dates are correct. This facilitates the processing of proposals in SPA since budgets will not have to be rechecked. The common, repetitive parts of proposals, once completed on EGMS the first time, can be easily and accurately reproduced for later proposals, and any given proposal can be cloned and edited for later submissions.

Particularly important is that once a proposal has been awarded, the fact that the budget was prepared in EGMS (which transparently assembles it in CUFS object code categories) will enable the grant administrators in SPA to compare the awarded budget with the proposed budget based on CUFS categories and efficiently set up the awarded budget.

Since we are still in a combination world (i.e., preparing the proposal in a database, but printing it out on paper to send to the agency), it is important to make sure that the two are synchronized. This means that what is on the paper proposal that is submitted to the sponsoring agency must match the information in the EGMS database. Consequently, if changes are required during the review

{next column}

process in SPA, it might be necessary for the SPA administrators to ask you to go back and correct your proposal in EGMS. This is key because they will be using those data during the next phase of the grant process, when they process your award and establish a CUFS account.

Because we eventually want to capture all proposal budgets in CUFS object code categories, we intend to move toward requiring that proposal budgets be prepared using the EGMS tool. This will allow us to have the proposed budget in University categories and also will make sure that proper fringe benefit rates, indirect cost rates, and proper inflation factors are applied to the budget.

So, give it a try!

You can access the EGMS web site at <http://nirvana.ortta.umn.edu>. For questions about the EGMS system, contact us at egms@boombox.micro.umn.edu or call Susan Stensland at 612/625-3515 or Winifred Schumi at 612/624-5750.

by Winifred Schumi, Grants Management Project

Payment Vouchers Available for Electronic Departmental Entry

The payment voucher (PV) is the latest document available for distributed entry via Financial FormsNirvana. The payment voucher will be used in conjunction with a purchase order (POT). When entered, the payment voucher both triggers the payment to a vendor, and releases the encumbrance established by a POT.

How Departments benefit

Distributed entry capabilities will benefit departments in many ways. The greatest benefits include:

Reports are more accurate.

Information is more timely.

Obligations will be encumbered.

Processing time will be significantly reduced by eliminating such steps as delivery by campus mail.

Documents are automatically routed for approval.

There is immediate feedback on entry accuracy due to built-in editing.

Account balance displays for approver with each document processed.

Units will know where the documents are at any time (to be approved, posting to the accounting system, etc.) by way of the system tracking capabilities.

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

Feinstein, S.C. Mediums of memory: artistic responses of the second generation. In *Breaking Crystal*, E. Sicher, ed. Urbana-Champaign: U. of Ill. Press, 1997, pp. 201-251.

Feinstein, S.C. The other side of memory: toward a typology of Holocaust art. *Response: A Contemporary Jewish Review* 68 (Fall 1997/Winter 1998): 161-175.

Feinstein, S.C. Memory and re memory of the Holocaust through installation art. In *Reclaiming Memory: American Representations of the Holocaust*, P. Ahokas, M. Chard-Hutchinson, eds., University of Turku School of Art Studies series A no. 35. Turku: 1998, pp. 87-111.

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Pucel, D.J., Fruehling, R.T. *Working in Teams: Interaction and Communication*. St. Paul: EMC Paradigm, 1997.

Pucel, D.J. Effective instructional strategies. *Maintenance Technology* special supplement (June 1997): 16-18.

Pucel, D.J., Flister, S. The current status and future of industrial teacher education and non-teacher education programs in institutions of higher education. *Journal of Industrial Teacher Education* 34.4 (1997): 64-79.

Bottoms, G., Pucel, D.J., Phillips, I. *Designing Challenging Vocational Courses*. Atlanta: Southern Regional Education Board, 1997.

Kinsey, J.D. Income and food consumption: a variety of answers. *American Journal of Agricultural Economics* 79.5 (1997): 1461-1464.

Coggins, J.S., Rameszani, C.A. An arbitrage-free approach to quasi-option value. *Journal of Environmental Economics and Management* 35.2 (March 1998): 103-125.

Pritchett, J.G., Liu, D.J., Kaiser, H.M. Optimal choice of generic milk advertising expenditures by media outlet. *Journal of Agricultural and Resource Economics* 23.1 (July 1998): 155-169.

Health Care Management & Health Sciences

Vaupel, J.W., Carey, J.R., Christensen, K., Johnson, T.E., Yashin, A.I., Holm, N.V., et al. Biodemographic trajectories of longevity (review). *Science* 280.5365 (8 May 1998): 855-860.

Hakim, A.A., Abbott, R.D. Walking and mortality in older men (reply). *New England Journal of Medicine* 338.22 (28 May 1998): 1623.

Gerding, D.N., Johnson, S., Shim, J.K., Samore, M.H., Bliss, D.Z. Symptomless colonisation by *Clostridium difficile* and risk of diarrhoea (reply). *Lancet* 351.9117 (6 June 1998): 1733-1734.

Madoff, R.D. Treatment of chronic anal fissure. *New England Journal of Medicine* 338.23 (4 June 1998): 1698-1699.

Lake, J.R. Hepatocyte transplantation. *New England Journal of Medicine* 338.20 (14 May 1998): 1463-1465.

Salerno, C.T., Droel, J., Bianco, R.W. Current state of in vivo preclinical heart valve evaluation. *The Journal of Heart Valve Disease* 7 (1998): 158-162.

Bhattacharjee, A., Lappi, V.R., Rutherford, M.S., Schook, L.B. Molecular dissection of dimethylnitrosamine (DMN)-induced hepatotoxicity by mRNA differential display. *Toxicology and Applied Pharmacology* 150 (1998): 186-195.

Dreifuss, F.E., Rosman, N.P., Cloyd, J.C., Pellock, J.M., Kuzniecky, R.I., Lo, W.D., et al. A comparison of rectal diazepam gel and placebo for acute repetitive seizures. *New England Journal of Medicine* 338 (1998): 1869-1875.

Frenkel, L.M., Mullins, J.I., Learn, G.H., Mannsarcuino, L., Herring, B.L., Kalish, M.L., et al. Genetic evaluation of suspected cases of transient HIV-1 infection of infants. *Science* 280.5366 (15 May 1998): 1073-1077.

Agosto, M., Allan, J., Benson, C., Berger, E.A., Blumenthal, R., Burton, D., et al. AIDS vaccine development. *Science* 280.5365 (8 May 1998): 803 ff.

Pampusch, M.S., Osinski, M.A., Serie, J.R., Murtaugh, M.P., Brown, D.R. Opioid receptor gene expression in the porcine immune system. In *Drugs of Abuse, Immunomodulation and AIDS*, H. Friedman, J. Madden, T. Klein, eds. New York: Plenum, 1998, 59-65.

Biological, Agricultural Sciences and Engineering

Magee, P.T. Analysis of the *Candida albicans* genome. *Methods in Microbiology* 26 (1998): 395-415.

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**Please send your new citations to
phil@ortta.umn.edu.**

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

Department of Transportation Federal Railroad Administration Next Generation High-Speed Rail Program- BAA-98-01

The Federal Railroad Administration (FRA) is soliciting pre-proposal concept papers for various research projects, technology advancements, and/or demonstrations directed at enhancing the deployment of high-speed rail service in the United States. Such technologies are those which will 1) enhance the revenue-generating capability of high-speed operations; 2) bring about capital-cost reductions and economy in producing equipment and facilities; 3) reduce operating costs of high-speed rail service; 4) improve the reliability of equipment and infrastructure components; 5) improve safety; and 6) enhance the social benefits and/or environmental aspects of high-speed rail.

This is an unrestricted solicitation. Any responsible source may submit a pre-proposal concept paper for consideration. Awards will range between \$25,000 and \$500,000 each. Cost sharing is not mandatory but is encouraged.

Pre-proposal concept papers should be ten pages or less and must contain a technical concept section, a cost or pricing section, and if applicable, a phased or follow-on research project section. Prior discussion with the agency is strongly encouraged.

Pre-proposals will be accepted continuously until **April 30, 1999**; however, interested parties would be well advised to submit their proposals as early as possible.

Application packages may be requested by writing to the U.S. Department of Transportation, Federal Railroad Administration Office of Acquisition and Grants Services, RAD-30, 400 7th Street SW, Mail Stop 50, Washington, DC 20590; fax 202/632-3846, Attention Thomas Riddle. Refer to BAA-98-01. The web site is <http://www.fra.dot.gov/hsgrt/fedassist/techdev>.

Centers for Disease Control Emerging Infections

The Centers for Disease Control and Prevention (CDC) is inviting grant and cooperative agreement applications for applied research on emerging infections that address the correlation of environmental monitoring of microbial agents with disease control. Areas of interest include *Legionella* and *Cryptosporidia* in water; *Aspergillus* spores in air; and vancomycin-resistant *Enterococci* and other agents in hospital and child-care environments.

\$500,000 is available to make one to three awards ranging from \$100,000 to \$500,000 for up to three years.

The application deadline is **October 1, 1998**. For applications call 888/grants4. For program information contact Matthes Arduino, 404/639-2318, mja3@cdd.gov, <http://www.cdc.gov>. Refer to announcement 99005.

Infectious Causes of Chronic Diseases

CDC is inviting proposals for applied research on emerging infections that addresses infectious causes of chronic diseases, including pre-term low birth rate and infertility, as well as standard chronic disease syndromes like cancer and diabetes.

\$500,000 is available to make one to three awards ranging from \$100,000 to \$500,000 for up to three years.

The application deadline is **October 1, 1998**. For applications call 888/grants4. For program information contact Anne Schuchat, 404/639-4720, acs1@cdc.gov, <http://www.cdc.gov>. Refer to announcement 99003.

Emerging Infections Novel Diagnostic Tests for Infections of Public Health Significance

CDC is inviting proposals for applied research on emerging infections. This announcement addresses the development of novel diagnostic tests for infections of public health significance. Attributes sought are low cost, use with noninvasive or easy-to-collect specimens, short time-to-result, stable reagents, minimum risks to technicians, sensitivity and specificity appropriate for setting.

\$500,000 is available to fund two to three awards ranging from \$160,000 to \$250,000 for up to three years.

The application deadline is **October 1, 1998**. For applications call 888/grants4. For program information contact Bala Swaminathan, 404/639-3669, fax 404/639-3333, bas5@cdc.gov, <http://www.cdc.gov>. Refer to announcement 99012.

■ U.S. Department of Education Postbaccalaureate Achievement Program CFDA 84.217

The U.S. Department of Education has announced the FY 1999 Ronald E. McNair Postbaccalaureate Achievement Program. The purpose of the program is to provide grants for higher education institutions to prepare low-income, first-generation college students, and students from groups underrepresented in graduate education, for doctoral study.

The estimated range of awards is \$190,000 to \$285,000, with the average at \$215,000 for four to five years. Approximately 109 awards will be made.

The application deadline is **October 2, 1998**. Web access is <http://www.ed.gov/news.html> or <http://ocfo.ed.gov/fedreg.htm>.

Upward Bound and Upward Bound Math/ Science Programs CFDA 84.047A and 84.047M

The FY 1999 Upward Bound and Upward Bound Math/Science Programs are being announced.

The Upward Bound Program provides grants to enable applicants to 1) identify qualified youths who are low-income and potential first-generation college students and to generate the skills and motivation necessary for success in completing high school and enrolling into postsecondary education; 2) encourage youths in the program to remain and complete high school; and 3) encourage youths to enroll in a postsecondary institution and graduate. Awards will range from \$200,000 to \$690,000, and approximately 682 awards will be made. The deadline is **October 30, 1998**.

The Upward Bound Math/Science Program provides grants to conduct projects to prepare high school students for postsecondary education programs that lead to careers in the fields of math and science. Awards will range from \$200,000 to \$300,000 and approximately 99 awards will be made. The deadline is **October 2, 1998**.

Web access is <http://www.ed.gov/news.html> or <http://ocfo.ed.gov/fedreg.htm>.

■ National Science Foundation Multi-User Equipment and Instrumentation Resources for Biological Sciences

The National Science Foundation (NSF) announces its continued effort to support purchase of multi-user instrumentation for research in biological sciences. The Multi-User Equipment and Instrumentation Resources for Biological Sciences (MUE) Program provides support to institutions to purchase expensive items of equipment that will be shared by a number of investigators having actively-funded research projects in areas supported by the Directorate for Biological Sciences. The program will support:

- the purchase of single items of biological equipment,
- the establishment of instrumentation resources consisting of several items of equipment with a related purpose, or the purchase of additional equipment for such resources, and
- shared computational resources. Applications for workstations and mid-range computing machines dedicated to broad research needs are appropriate as multi-user equipment proposals. Support is not provided for personal computers, personal workstations, and printers.

Applications are invited for instruments that cost at least \$40,000 per instrument or integrated system. This program will provide funds up to \$400,000 per application. Cost sharing of at least 30 percent is required.

NSF understands that some pieces of equipment are sufficiently expensive that they are unlikely to be funded by a single federal agency. For that reason, parallel multi-user proposals may be sent to NSF and to other federal agencies for simultaneous review. It is important to identify on the cover sheet the other agencies to which parallel proposals are being submitted.

The annual proposal deadline is the first Monday in October—**October 5, 1998**. A full copy of the announcement may be found at <http://www.nsf.gov/cgi-bin/getpub?nsf98137>.

■ United States Institute of Peace Senior Fellowship Competition

The agency is soliciting applications for Senior Fellowships from scholars or practitioners who conduct research related to the peaceful resolution of international conflict. Fellowship entails residence at the agency in Washington, D.C., for up to one year beginning September 1, 1999.

The application deadline is **October 1, 1998**. Application materials are available at the web site <http://www.usip.org>, or contact United States Institute of Peace, Jennings Randolph Program, 1550 M Street NW, Suite 700, Washington, DC 20005-1708; fax 202/429-6063, jrprogram@usip.org.

Unsolicited Fall Grant Program

The agency announces its Unsolicited Grant Competition which offers support for research, education and training, and the dissemination of information on international peace and conflict resolution.

The application deadline is **October 1, 1998**. Application materials are available at the web site <http://www.usip.org>, or contact United States Institute of Peace, Grant Program, 1550 M Street NW, Suite 700, Washington, DC 20005-1708; 202/429-3842, fax 202/429-6063, grant_program@usip.org.

■ McKnight Foundation

The McKnight Foundation has announced that it will contribute \$2.75 million over three years to a new Upper Midwest Energy Initiative to support energy conservation and renewal. The initiative is a partnership with the San Francisco-based Energy Foundation, which will administer the program.

The Upper Midwest Energy Initiative will work toward a cleaner environment by seeking to make efficient energy and renewable power competitive with other options for generating electricity. The initiative will support efforts to promote public policies and other efforts that create a favorable climate for clean-power business in seven states: Minnesota, Wisconsin, Iowa, Nebraska, the Dakotas, and Illinois.

For guidelines, contact the Energy Foundation at 415/561-6700.

■ HRSA Preview

Potential applicants are reminded that all information about the Health Resources and Services Administration (HRSA) may be accessed at <http://www.hrsa.dhhs.gov>, and that it the responsibility of applicants to retrieve all necessary information.

HRSA has recently released *Preview*, a catalog of future funding. Following are the deadlines they have listed so far.

Graduate Training in Family Medicine	09/14/98
Faculty Development in General Internal Medicine and General Pediatrics	09/14/98
Faculty Development in Family Medicine	09/28/98
Residency Training in General Internal Medicine and General Pediatrics	09/30/98
Residencies and Advanced Education in the Practice of General Dentistry	10/15/98
Professional Nurse Traineeships	11/02/98
Nurse Anesthetist Traineeships and Fellowships	11/02/98
Predoctoral Training in Family Medicine	11/09/98
Nursing Education Opportunities for Individuals from Disadvantaged Backgrounds	11/16/98
Nurse Practitioner/Nurse Midwifery	12/07/98
Nursing Special Projects	12/14/98
Geriatric Education Centers	12/21/98
Advanced Nurse Education	12/21/98
Nurse Anesthetist Program Grants	12/21/98
Basic Core Area Health Education Centers	01/11/99
Model State-Supported Area Health Education Centers	01/11/99
Health Education and Training Centers	02/08/99
Departments of Family Medicine	03/15/99

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Phil Norcross at ORTTA, phil@ortta.umn.edu.

Proposal and Award Summary		
	Number	Amount
Proposals Submitted		
June 1998	416	\$ 70,505,799
Awards Processed		
June 1998	252	24,224,686
Proposals Submitted		
July 1997 - June 1998	4,060	824,437,872
Awards Processed		
July 1997 - June 1998	2,953	365,798,905
Proposals Submitted		
July 1996 - June 1997	3,779	682,734,032
Awards Processed		
July 1996 - June 1997	2,862	343,342,116

Structure and Function of Epididymis and Vas Deferens

David W. Hamilton, Cell Biology and Neuroanatomy
 Kenneth P. Roberts, Urologic Surgery
 NIH-NICHD
 \$201,066 - 4/1/98-3/31/99

Stereo Investigator System for Design-Based Stereology

Robert P. Elde, Cell Biology and Neuroanatomy
 Minnesota Medical Foundation
 \$20,000 - 6/1/98-5/31/99

Evaluation of Qualicode Assays for the Detection of Lyme Disease

Russell C. Johnson, Microbiology
 Immunetics, Inc.
 \$9,600 - 3/9/98-6/8/98

Clinical Trial: The Efficacy of Once-Daily Atorvastatin in Hypercholesterolemic Patients

Donald B. Hunninghake, Pharmacology
 Larry W. Kotek, Medicine
 Parke-Davis Pharmaceutical Research Division
 \$46,000 - 5/11/98-5/10/99

Clinical Trial to Examine the Effects of Finasteride on Serum Prostate-Specific Antigen in Men with Androgenetic Alopecia

Maria K. Hordinsky, Dermatology
 Jon L. Pryor, Urologic Surgery
 Merck
 \$90,604 - 3/19/98-3/18/00

Evaluation to Plan and Assess Specific Faculty Development Programs

Carole J. Bland, Family Practice and Community Health
 Health Resources and Services Administration
 \$99,987 - 4/16/98-12/31/99

Cancer Center Support Grant

John H. Kersey, Jr., Laboratory Medicine and Pathology
 NIH, NCI
 \$1,095,116 - 6/1/98-5/31/99

Oral and Intestinal Response to HIV: Implications for Vaccine

Edward N. Janoff, Medicine
 NIH, NIDR
 \$1,218,695 - 9/28/97-9/27/00

Genetic Regulation of Melanin Biosynthesis

Richard A. King, Medicine
 William S. Oetting, Medicine
 Leonard J. Banaszak, Biochemistry
 NIH, NIAMS
 \$243,269 - 5/15/98-4/30/99

Clinical Trial to Evaluate the Efficacy of Avonex in the Treatment of Secondary Progressive Multiple Sclerosis

Gary Birnbaum, Neurology
 Randall Schapiro, Neurology
 Covance Clinical and Pre-approval Services, Inc.
 \$206,400 - 5/1/98-4/30/00

Assessment and Treatment of Adolescent Drug Abusers

Ken Winters, Pediatrics
 NIH, NIDA
 \$198,562 - 5/15/98-4/30/99

NMR Imaging and Localized Spectroscopy at High-Magnetic Fields

Kamil Ugurbil, Radiology
 NIH, DRR
 \$945,857 - 6/15/98-5/31/99

A Pilot Study of High-Risk Behaviors in Homeless Adolescents

Alan R. Lifson, Epidemiology
 NIH, NCI
 \$72,987 - 7/1/98-6/30/99

Child and Adolescent Trial for Cardiovascular Health

John H. Himes, Epidemiology
 New England Research Institute
 \$21,870 - 5/1/98-4/30/99

Hydrosolve Bioequivalence Project

Cheryl L. Zimmerman, Pharmaceuticals Research
 EM Industries Inc.
 \$60,402 - 4/20/98-4/19/99

The NFI Gene on Myeloid Leukemia and Cytokine Signaling

David A. Largaespada, Cancer Center
 NIH, NCI
 \$112,553 - 6/1/98-5/31/99

Improving Maternity Health of Somali Refugees Through Enhanced Prenatal Support Services

Amos S. Deinard, Community University Health Care Center
 Marline Spring, Community University Health Care Center
 March of Dimes, Greater Twin Cities Chapter
 \$5,000 - 7/1/98-6/30/99

Clinical Periodontal Trial of Periostat

Bryan S. Michalowicz, Preventive Sciences
 Bruce L. Pihlstrom, Preventive Sciences
 Collagenex Pharmaceuticals, Inc.
 \$159,613 - 3/15/98-3/14/99

Oral Surgery and Initiation of Neurogenic Inflammation

James Q. Swift, Diagnostic Surgical Sciences
 Kenneth M. Hargreaves, Restorative Sciences
 NIH, NIDR
 \$234,416 - 6/1/98-5/31/99

Salmonella Abatement in the Pork Chain

Thomas Blaha, Clinical and Population Sciences
 Allen Carlson, Clinical and Population Sciences
 Robert Morrison, Clinical and Population Sciences
 National Pork Producers Council
 \$24,997 - 6/30/98-6/30/99

Band Production to Allow Small Farms Access to Segregated Early Weaning (SEW)

Carlos Pijoan, Clinical and Population Sciences
Larry D. Jacobson, Biosystems and Agricultural Engineering
Mon Torremorrell, Clinical and Population Sciences
Minnesota Pork Producers Association
\$14,928 - 5/1/98-9/1/99

Mechanisms for TNF-ALPHA in Xenobiotic Liver Injury

Mark S. Rutherford, Veterinary Pathobiology
Lawrence B. Schook, Veterinary Pathobiology
Jeffrey Rank, Medicine
NIH, NIEHS
\$169,963 - 5/1/98-4/30/99

Identification of Expressed Eimeria Genes

Mitchell Abrahamsen, Veterinary Pathobiology
Lilly Research Laboratories
\$27,640 - 4/1/98-7/1/98

Fundamental Fracture Mechanisms in the Ductile Single Crystal

Thomas W. Shield, Aerospace Engineering and Mechanics
National Science Foundation
\$187,675 - 6/1/98-5/31/01

Mechanisms of Enzyme Inactivation by Cyclopropyl Groups

Hung-Wen Liu, Chemistry
NIH, NIGMS
\$257,988 - 4/1/98-3/31/99

Non-Heme Oxygen Activation in Enzymes and Models

Lawrence Que, Jr., Chemistry
NIH, NIGMS
\$237,184 - 4/1/98-3/31/99

Synthetic Approaches for Modelling Metal-Oxo Proteins

Lawrence Que, Jr., Chemistry
NIH, NIGMS
\$181,921 - 4/1/98-3/31/99

Novel Chemistry for Peptide Ligation Intermediates

George Barany, Chemistry
Thomas S. Yokum, Chemistry
NIH, NIGMS
\$25,000 - 6/8/98-6/7/99

Field Measurement of Granular Base Drainage Characteristics

Bjorn Birgisson, Civil Engineering
David E. Newcomb, Civil Engineering
St. of Minn., Department of Transportation
\$131,000 - 5/26/98-8/31/00

Scalar and Vector Partial Differentiation Equations (PDEs) for Image Processing Problems

Guillermo Sapiro, Electrical and Computer Engineering
USDOD, Navy
\$34,000 - 6/1/98-9/30/98

Gauge Theory in Geometry

Naichung Leung, Mathematics
National Science Foundation
\$86,170 - 6/1/98-5/31/01

Flame Characteristics of a Countercurrent Swirl Combuster

Paul J. Strykowski, Mechanical Engineering
David L. Hofeldt, Mechanical Engineering
USDOD, Navy
\$50,000 - 5/25/98-12/31/98

Constructing an Experimental System for Simultaneous Heat-Capacity and Optical Measurements

Cheng-Che Huang, Physics and Astronomy
North Atlantic Treaty Organization
\$3,508 - 6/1/98-5/31/00

Engineering Novel Monomer Syntheses for Polyhydroxyalkanoate Copolymers

David H. Sherman, Biological Process Technical Institute
Procter and Gamble Co.
\$56,275 - 2/1/98-1/31/99

Glutamate Transporter Technology

Kenneth Valentas, Biological Process Technical Institute
Sota Tec Fund
\$50,000 - 4/1/98-3/31/99

Teosinte Branched 1 and the Evolution of Grass Form

John F. Doebley, Plant Biology
Lewis Lukens, Plant Biology
National Science Foundation
\$10,000 - 6/15/98-5/31/99

Adding Precision to Phosphate Fertilizer Management for Soybeans

John A. Lamb, Northwest Agricultural Experiment Station, Crookston
George W. Rehm, Soil, Water, and Climate
Gary L. Malzer, Soil, Water, and Climate
Minnesota Soybean Research and Promotion Council
\$29,987 - 4/1/98-4/30/99

Nitrate Soil Test Adjustment for Sugar Beet Grown in Humid Areas of Minnesota

John A. Lamb, Northwest Agricultural Experiment Station, Crookston
George W. Rehm, Soil, Water, and Climate
Sugarbeet Research and Educational Board of Minnesota and North Dakota
\$17,817 - 4/1/98-3/31/99

Economic and Local Government Impacts of the Minnesota Swine Industry

George Morse, Applied Economics
William Lazarus, Applied Economics
National Pork Producers Council
\$32,000 - 5/1/98-3/1/00

Biodegradable Polymers from Soy Flour/Soy Protein

Mrinal Bhattacharya, Biosystems and Agricultural Engineering
Minnesota Soybean Research and Promotion Council
\$39,053 - 4/1/98-4/30/99

Soybean Breeding and Genetics Support

James H. Orf, Agronomy and Plant Genetics
Minnesota Soybean Research and Promotion Council
\$123,208 - 4/1/98-4/30/99

Developing Genetic Engineering Systems for Minnesota Soybeans

David A. Somers, Agronomy and Plant Genetics
Minnesota Soybean Research and Promotion Council
\$48,052 - 4/1/98-4/30/99

Preventing Weed Resistance in Roundup-Ready Systems

Donald L. Wyse, Agronomy and Plant Genetics
Nicholas Jordan, Agronomy and Plant Genetics
Minnesota Soybean Research and Promotion Council
\$37,018 - 4/1/98-7/30/99

Weed Competitiveness in Sweet Corn

William Lueschen, Agronomy and Plant Genetics
Roger L. Becker, Agronomy and Plant Genetics
Agricultural Utilization Research Institute
\$30,000 - 5/1/98-5/1/00

Granulocytic Ehrlichias in Ticks and Tick Cell Culture

Ulrike G. Munderloh, Entomology
Department of Health and Human Services
\$106,814 - 5/1/98-4/30/99

Pesticide Impacts in the Potato Ecosystem

Edward B. Radcliffe, Entomology
David W. Ragsdale, Entomology
Red River Valley Potato Growers Association
\$8,000 - 7/1/98-6/30/99

Potato Variety Development - Program Acceleration

Christian Thill, Horticultural Science
 Red River Valley Potato Growers Association
 \$41,000 - 7/1/98-6/30/99

Development of Cyst Resistant Soybeans with Traditional Molecular Techniques

Nevin D. Young, Plant Pathology
 James H. Orf, Agronomy and Plant Genetics
 Minnesota Soybean Research and Promotion Council
 \$115,740 - 4/1/98-4/30/99

Combining Effective Fertilization with Soybean Planting

George W. Rehm, Soil, Water, and Climate
 Minnesota Soybean Research and Promotion Council
 \$20,416 - 4/1/98-4/30/99

Flame Burning for Renovation of Strawberries

David K. Wildung, North-Central Ag. Experiment Station, Grand Rapids
 North American Strawberry Growers Association
 \$600 - 5/1/98-10/1/99

Investigation of Biocontrol Potential of Fungal Parasites

Senyu Chen, Southern Agricultural Experiment Station, Waseca
 Minnesota Soybean Research and Promotion Council
 \$88,920 - 4/1/98-4/30/99

Development of Strategies for Managing HTE Soybean Cyst Nematode

Senyu Chen, Southern Agricultural Experiment Station, Waseca
 Paul Porter, Agronomy and Plant Genetics
 Ward Stienstra, Plant Pathology
 Minnesota Soybean Research and Promotion Council
 \$86,080 - 4/1/98-4/30/99

Improving Predictive Population Models for Sugarbeet Root Maggot

Ian Macrae, Entomology
 Sugarbeet Research and Educational Board of Minnesota and North Dakota
 \$11,400 - 4/1/98-3/31/99

Growth Response of White Pine Regeneration

Klaus J. Puettmann, Forest Resources
 Matt Duvall, Forest Resources
 St. Louis County Land Department
 \$10,000 - 3/1/98-2/28/99

Research Support for Timberbolt Establishment and Performance

Scott J. Josiah, Forest Resources
 Western Minnesota Resource Conservation and Development
 \$6,250 - 4/1/98-12/31/98

Person-Centered Aging Development Training Contract for State-Operated Services

K. Charlie Lakin, Educational Psychology
 St. of Minn., Department of Human Services
 \$30,800 - 2/2/98-1/31/99

Native Americans' Sense of Place and Contested Terrain

Leo H. McAvoy, Jr., Kinesiology and Leisure Studies
 U.S. Department of Agriculture
 \$6,500 - 6/5/98-7/31/00

Community School Curriculum Collaboration

Gary W. Leske, Work, Community, and Family Education
 Rob Shumer, Work, Community, and Family Education
 St. of Minn., Department of Children, Families, and Learning
 \$61,587 - 3/20/98-6/30/98

Collaborative Decision-Making in Traffic Flow Management

Kip Smith, Information and Decision Sciences
 Federal Aviation Administration
 \$140,540 - 3/20/98-9/19/98

The Urea Cycle in Fish

Paul M. Anderson, Medicine, Duluth
 Wilmar L. Salo, Medicine, Duluth
 National Science Foundation
 \$50,000 - 7/1/98-6/30/99

Family-Community Bridges

Barbara A. Elliott, Medicine, Duluth
 Ronald R. Regal, Mathematics and Statistics, Duluth
 Colleen Renier, Behavioral Sciences, Duluth
 Carlton County Health Services
 \$41,760 - 5/18/98-2/1/00

Nitrogen Controls Over Tree Root Production

Mark Coleman, Natural Resources Research Institute, Duluth
 Mississippi State University
 \$95,177 - 2/1/98-1/31/00

Taconite Process Water Quality and Tailing Water Quality

John Engesser, Natural Resources Research Institute, Duluth
 St. of Minn., Department of Natural Resources
 \$50,000 - 5/15/98-6/30/99

Forest Products Technology Implementation

Neil D. Nelson, Natural Resources Research Institute, Duluth
 Christian F. Edwardson, Natural Resources Research Institute, Duluth
 U.S. Department of Agriculture
 \$218,153 - 5/15/98-5/31/02

Analysis of BTI and Methoprine Application Rates

Lyle Shannon, Biology, Duluth
 Metropolitan Mosquito Control Commission
 \$1,429 - 5/1/98-12/31/98

New Polyvalent Iodine Reagents

Viktor V. Zhdankin, Chemistry, Duluth
 National Science Foundation
 \$180,000 - 5/1/98-4/30/01

Development of Water-Well Database

Howard Mooers, Geology and Geophysics
 St. of Minn., Department of Health
 \$39,023 - 6/12/98-3/1/99

Tutoring and Mentoring Services to K-12 Children and Youth

J. T. McCarthy, Education and Human Service Professions, Duluth
 Ordean Foundation
 \$8,719 - 2/10/98-12/31/98

Middle Stone Age Archaeology in the Serengeti National Park, Tanzania

John R. Bower, Archaeometry Laboratory, Duluth
 Wenner-Gren Foundation for Anthropological Research
 \$25,000 - 6/22/98-12/31/98

Southern Ocean Study: Zooplankton Process

Meng Zhou, Large Lake Observatory
 University of California - San Diego
 \$47,491 - 4/1/98-8/31/99

Heritage Preservers

Elizabeth S. Blake, Academic Affairs, Morris
 Minnesota Humanities Commission
 \$3,000 - 4/3/98-4/1/99

Philosophy Colloquium: The Mentally Ill Offender

Ishtiyagu Haji, Philosophy, Morris
 Minnesota Humanities Commission
 \$3,000 - 1/20/98-6/30/99

Minnesota: Rivers and Fields

G. McIntosh, University College, Morris
 Roger Boleman, Media Services, Morris
 Agricultural Utilization Research Institute
 \$27,300 - 4/21/98-3/31/99

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**ORTTA cannot change the faculty mailing list.
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For faculty changes, please call Staff Demographics, 200 Donhowe Bldg., 612/624-8374.
(Faculty labels are the ones with a string of numbers printed above the addressee's name.)
For changes regarding other labels, please complete the following:

Change **Name:** _____
Add **Department:** _____
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City, State, Zip (if off campus): _____

Please enclose the mailing label!

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RESEARCH REVIEW

Office of Research and Technology Transfer

September 1998

Graduate School Helps Pls Recruit Underrepresented Students

Federal training grants usually require that proposals include plans for recruiting from populations too-lightly represented in the scientific and academic community. The agencies don't much say *how* that recruiting should be done; they just say they want it done.

A current announcement from NSF, for example, says "Plans for recruitment and retention of trainees should be described, including specific provisions for successful recruitment and retention of members of groups underrepresented in science and engineering." Then it asks for three years' worth of numbers regarding applications received, applications accepted, applicants' GRE scores, average time to graduation, and "other relevant measures of student success." And it wants one set of numbers for women and another for the underrepresented ethnic groups.*

To get help with training programs and proposals for training programs, Dennis Clayton urges UM investigators to call him. He directs the equal opportunity office in the Graduate School, and he is there to help graduate faculty recruit, fund, and retain students from underrepresented groups—Blacks, American Indians, Asian-Americans, and Latinos, for examples.

Clayton and colleagues travel to recruiting events in Puerto Rico, Louisiana, and Texas. They help prospective students decide whether and where to go to grad school, help them write winning applications, and help them get waivers of application fees.

For proposals, Clayton will provide the necessary statistics regarding the University population, letters of support, and plans for recruiting efforts.

Clayton maintains recruiting contacts at undergraduate institutions with large populations from underrepresented groups; he runs a faculty development program for tribal

{continued on page 9}



Dave Hansen, UM Ag. Experiment Station

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 3

September 1998

Editor: Phil Norcross

Editorial Assistant: Tove Jespersen

Interim Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Phil Norcross, 612/625-2354, phil@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr + 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr + 8.7%
Summer quarter TA, RA, AF	— 8.7%
Summer session TA, with tuition	\$12.44/hr + 8.7%
Summer session TA, without tuition	— 8.7%
Professional program assistant	— 8.7%
Dental fellow *	\$4.30/hr —
Medical fellow *	\$3.30/hr —

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612/624-2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Phil Norcross, editor, 612/625-2354, phil@ortta.umn.edu.

Sponsored Projects Administration

Late Proposals Need Your Teamwork

Grant proposals traveling toward a deadline are like the spring ice surging downriver—the farther downstream you go, the closer you get to a flood. And as Grand Forks taught us so well, it takes teamwork to deal with a flood.

In other words, on Friday, May 29, the last working day before one of the biggest deadlines on the NIH calendar, some 40 proposals flowed out of researchers' offices in the late afternoon and flooded into Sponsored Projects Administration (SPA).

In order to catch their plane and reach NIH on time, those proposals absolutely had to leave SPA by 6:00 P.M. In between time, they had to be checked, corrected, signed, and packed by a crew that had already been working at top speed for two days.

Such floods are expensive; SPA can no longer afford to keep its doors open late and its support staff working overtime.

So please get your proposals to SPA with two or three days to spare, especially before the big NIH deadlines on the first of February, March, June, July, October, and November.

And please understand that after a certain point, SPA must ask you to pitch in.

Thank you for your help.

The SPA staff.

P.S.: For *internal University financial documents*, chiefly POTs, TAs, and RXs, SPA provides 24-hour turn-around, provided the documents arrive at SPA by 10:00 A.M. In other words, "In by 10, out by 10."

SPA will review and endorse proposals arriving after 1:00 P.M.

The investigators and/or their staffs, however, will have to personally correct and mail them.

And SPA's doors lock at 5:00.

For Late Proposals, SPA Can Provide Limited Service and Needs Investigators' Help

- Starting December 1, 1998, SPA will provide full service when complete proposals arrive by 1:00 P.M. on *the day before* the sponsor's deadline. After 1:00 SPA will require investigators' help, as follows:
- After 1:00, proposals need to be hand-carried by someone with the authority to deal with questions, confusion, and corrections on-the-spot.
- After 1:00, proposals due the next day will be processed after everything that arrived earlier, and then on a strictly first-come, first-served basis.
- Correcting and mailing late proposals are the responsibility of investigators, not SPA staff.
- A *complete* proposal includes UM's proposal routing form (formerly the BA23 form), all the forms and documents specified by the sponsor, and all the necessary copies, including one full copy for SPA.
- This deadline will be rigorously enforced. It applies equally to proposals arriving on paper or electronically via EGMS.
- And because SPA can no longer pay overtime to keep support staff after hours, the doors will lock at 5:00 P.M.

What's New in Grants Management

an index to changes and announcements

September 1998

(month 3 of UM fiscal 1999)

SPA Update 9911 - Late proposals need your teamwork

Notice issued: 9/01/98

Supersedes: 3:00 P.M. deadline

Effective date: 12/01/98

Change:

To receive full service, complete proposals must be in the SPA office by 1 P.M. the day before they are due at the funding agency.

Action to take:

See *Research Review*, September 1998, page 3.

Revised Cost-Accounting Rules are on the White House Web

Circular A-21, the document with which the federal Office of Management and Budget specifies cost-accounting rules for grants and contracts with academia, has seen a number of changes over the fast few years.

A new edition of A-21, recompiled to include all the changes since 1979, is published at <http://www.whitehouse.gov/WH/EOP/OMB/html/circulars/a021/a021.html>.

A-21 specifies, for example, what is to be accounted as a direct cost of a research grant to the University, and what is an indirect cost.

Sponsored Projects Administration Question & Answer

End-Dates are Binding Agreements

Question: If fixed-price awards do not require the return of unspent funds, then does the end-date on an agreement have any significance?

Answer: Yes it does. The award agreement with the sponsor establishes a project timeline and creates a schedule for the submission of reports and other deliverables. If a project will not be completed by the end-date on the agreement, then the schedule for deliverables will need to be revised. Because this type of change to the agreement requires mutual written consent by both the University

and the sponsor, an extension request is required by the principal investigator. If an extension is not requested, the University could be in breach of the agreement, which increases the risk of nonpayment or the potential for a lawsuit.

A few award agreements are fairly informal and may not reflect project dates. However, because the award was made after some sort of proposal, there is an expectation by the sponsor that the project will be finished by the proposed end date.

To demonstrate good stewardship on the part of the University, we must at least notify the sponsor of the extension.

by Todd Morrison, SPA

Responsible Management of Research

A research training workshop
open to all UM faculty

Offered by the

Office of the Vice President for Research

Thursday, October 8, 1998

12:30 to 4:30 P.M.

140 Nolte Center

Space is limited.

For information or registration, please write to
RsSchTrng@tc.umn.edu.

Agricultural Biotechnology Seeks New Seeds for New Kinds of Harvest

The agricultural biotechnology industry has undergone tremendous change in the last few years, due to acquisitions, mergers, buy-outs, and joint ventures. The resulting industry is almost like a series of spider webs, with networks radiating out from the big "life science" companies in the middle. The result is in essence a few vertically and horizontally integrated conglomerates, whose ultimate success largely depends upon their ability to spin webs that capture all of the capabilities they need to take technologies from concept to market.

A universal requirement to surviving in the ag-biotech industry is technology access. To supplement in-house

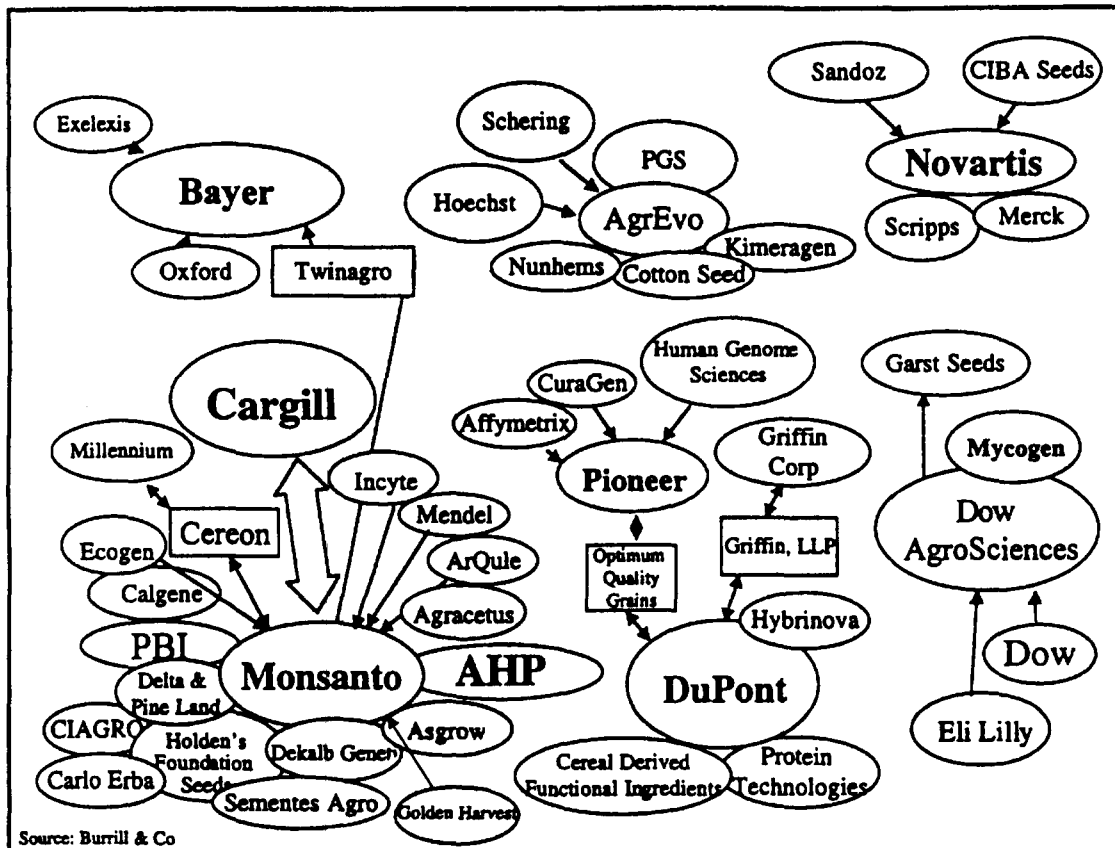
Robert Giaquinta of DuPont Agricultural Products said one chief goal of soybean breeding is to remove undesirable components, such as protease inhibitors, which inhibit digestion of proteins, and anti-nutritional sugars, such as stachiose and raffinose. While these sugars aren't digestible by humans, they are savored by certain intestinal bacteria that use these sugars for energy and produce methane as a by-product—hence the undesirable side-effect of eating beans.

A second goal, said Giaquinta, is to increase desirable soybean components, including isoflavones, protein quality (leading to development of high lysine and methionine

beans), oil quality, and protein functionality (to affect texture, gelling, and other properties).

Turning to corn, Giaquinta pointed out that 75 percent of U.S. corn production goes to animal feed, and fat is normally added to the feed to increase its energy content. Now DuPont has a corn variety with two times the normal oil content so that fat additives aren't needed.

Other goals for corn include:



Source: Burrill & Co

research, life science companies buy what they need, or license technologies developed by public research institutions such as ours.

Last month, the agricultural biotechnology industry (corporate people and a few academics) met in Chicago to discuss commercializing new technology in this dynamic and unpredictable environment. Speakers at "Strategic Partnerships to Successfully Commercialize Agricultural Biotechnology" described the industry's technology needs now and in the near future. In doing so, they gave us a snapshot of the types of technologies that might hold value from a licensing perspective.

- New quality traits, such as improved oil quality, and improved amino-acid contents;
- Pest resistance;
- Increased biological availability of phosphorous in the plants;
- Increased yield;
- Increased nutrition;
- Production of nonfood materials, ranging from industrial polymers to intermediates for pharmaceuticals.

{next page}

Sponsored Projects Administration

Federal Sponsors Giving Renewed Attention to Budgets and Extension Requests

Budget justifications are required. The changes flowing from Congress to the federal sponsors have resulted in increased enforcement for inclusion of budget justifications in proposals. A detailed description of how a project budget was developed and calculated has always been a federal requirement; however, in the past few years, the DoD, Department of Energy, and NASA have been lenient in making awards with little or no budget information. In recent months there has been a significant increase in federal sponsors returning budgets to SPA with requests that principal investigators resubmit their budgets with details regarding salary schedules, fringe benefit rates, supplies and equipment, travel plans, unobligated balances, and in some cases quarterly forecasts of expenditures.

Please carefully read the broad agency announcement, request for proposal, and forms provided for proposal submission. When, during proposal review, SPA sees there is insufficient budget justification, it will attempt to notify investigators and staff. When pressed by major

federal deadlines, however, SPA will notify faculty and staff by e-mail and proposals will be processed without revisions.

Good budget justifications make fiscal sense, and completing this information prior to technical merit and contract review will result in a more efficient and effective award process.

No-cost extensions are not foregone conclusions. As federal appropriations expire on a quarterly basis, there will be an increase in rejections of no-cost extensions from many federal sponsors. Federal sponsors may not be able to extend projects because funds are not available beyond the committed quarter. So the sponsors have requested that we inform our principal investigators that their requests for no-cost extensions will be under close scrutiny. Requests should be sent to the sponsors several months in advance, and they should describe, at minimum, a technical reason for the request, the amount of funds remaining, and the requested end-date.

by Leslie Flaherty and Sue Marshall, SPA

Ag Biotech

{continued from previous page}

The company Plant Genetics Systems (owned by AgrEvo) pursues two general categories of crop improvements, said Mike May. First is production and protection, i.e. agronomic traits and pest control. Second is the use of plants as bioreactors for production of specialty carbohydrates, oils, industrial materials, fibers, specialty proteins, and biodegradable plastics.

The longest-term and highest value crop improvements, said Tim Cupka of Asgrow Seed, involve the use of plants as "factories." This work might overlap that of pharmaceutical companies, which could use genetically engineered plants to produce "nutraceuticals," such as vaccines, vitamins, and foods that boost the immune system, fight cancer, or control inflammation.

Other speakers elaborated on three other types of technologies that hold value to the agricultural biotech industry:

- Genomic technologies of any type;
- Research and production tools, such as plant promoters, genes, and methods to increase throughput;
- Methods to trace genetically modified plants quickly, easily, and at low cost—to differentiate recombinant high-oil soybeans from normal soybeans arriving at a grain elevator, for example.

Funding for academic research that has potential value to the industry is available from The Consortium for Plant Biotechnology Research, Inc., according to Dorin Schumacher. The consortium brings together university researchers and industrial sponsors who may support new technologies in their early stages. For information, call Schumacher at 912/638-4900.

by Jeff Carpenter, PTM

Lab Animal Pro's Seek Your Counsel for Training Program

A new campus organization interested in the welfare of research animals seeks input on forming an education program that may become mandatory for researchers and laboratory technicians who handle animals.

Concerned University Lab Animal Professionals (CULAP) needs representatives from all facets of biomedical research and lab-animal care to serve on an advisory council to the Institutional Animal Care and Use Committee (IACUC). The advisory council will identify areas of animal handling, husbandry, ethics, and laboratory technique that should be addressed in an education program for biomedical research employees.

Currently, new University researchers and lab technicians who handle animals are required only to sign a form saying they have read

Introduction to Animal Care and Use at the University of Minnesota. But animal care technicians,

researchers, and veterinary staff have observed that some people who use research animals are unfamiliar with fundamental animal skills and do not follow regulations outlined in the manual. This has negatively affected both the well-being of lab animals and the research they are used in, causing animal suffering and costing time and money.

CULAP hopes to model an education program for researchers and lab technicians after Research Animal Resources' training program for lab-animal care technicians. The program could become mandatory.

CULAP was founded to improve lab animal welfare through education and the standardization of practices. It is made up of lab-animal care technicians, researchers, lab technicians, and veterinary staff who meet the first

Tuesday of each month to discuss research animal issues and share information. Researchers are asked to recommend people in their labs who are familiar with laboratory procedures to serve on the council. The commitment is short-term and the results will be important, potentially affecting many University laboratories.

Faculty, researchers, employees, and veterinary medicine students interested in serving on the council

or in joining CULAP should call Liza Moscovice or Mary Van Beusekom at 612/625-5654.

Gillett Leads College of Lab Animal Medicine

Cynthia Gillett, director of UM's Research Animal Resources, is now vice president of the American College of Laboratory Animal Medicine. Her one-year term began in July; next July she will become president-elect of the college. The 645-member college sets professional standards and certifies the qualifications of its members.

"Unparalleled Minds" Research Fair

Thursday, October 22

11 A.M. to 2 P.M.

in the Great Hall of Coffman Union

The Unparalleled Minds research fair will highlight some of the outstanding research being done at the University of Minnesota. Twenty-five Distinguished McKnight University Professors and McKnight Land-Grant Professors will demonstrate the depth and breath of the knowledge being created at the University.

"Unparalleled Minds" is free and open to the public. President Yudof will make welcoming remarks at about 11:15. The fair is a presentation of the Office of the Vice President for Research and the Graduate School.

Research Animal Resources is Happy to Help You Recruit

Trying to entice an up-and-coming research scientist to put down roots at the maroon and gold university of the future?

If your faculty candidates use animals in their research, contact Research Animal Resources during the recruiting process. We'll be happy to show candidates around the facilities and discuss available resources and support services for their animal-based research activities.

Visit our web site at www.ahc.umn.edu/rar or call 612/624-9100.

National Institutes of Health New Scoring Procedure

The National Institutes of Health adopted a different scoring procedure for applications beginning with the June 1998 study section, or peer review, meetings at which applications are evaluated for scientific merit.

Reviewers have been asked to score the top half of applications between 100 and 300—resetting the median from a previous 250. The top quarter of applications will be scored between 100 and 200, the lower the numerical score the better. The new procedure attempts to spread out scores to clarify the distinctions among meritorious applications and help funding institutes make awards.

As a result, raw scores may look worse than applicants are accustomed to. For example, a hypothetical application with a 172 score in the 25th percentile under the old system might have a score of 200 under the new system but have the same 25th percentile ranking.

To avoid disadvantage to applications scored under the new procedures, percentile scores for applications reviewed in June were computed in isolation. Under the previous arrangement, scores from the June meetings would have been averaged with percentiles from study sections' most recent two meetings.

Summary statements containing reviewers' critiques will explain to applicants how NIH intends to phase-in the change. For further information go to <http://www.drg.nih.gov/review/scoring.htm>.

Help Wanted: NIST Baldrige Award Examiners for 1999

The National Institute of Standards and Technology seeks volunteers from a wide variety of business and nonprofit organizations to serve one-year terms on the board of examiners for the 1999 Malcolm Baldrige National Quality Award.

"There is prestige and pride associated with being a Baldrige examiner. You gain external recognition and validation while contributing to a national program that seeks to improve U.S. competitiveness in all sectors," says Roberto Saco, regional quality officer, American Express TRS Co., and a Baldrige Award senior examiner.

Examiners evaluate applications for the award, report to applicants regarding strengths and opportunities for improvement, and recommend award winners to the NIST director. Qualifications include expertise in business, education, or health care management, and knowledge of practices and improvement strategies that lead to organizational excellence. The board consists of about 300 members, including nine judges and about 60 senior examiners.

If funding is approved by Congress, 1999 will be the first year that nonprofit education and health care organizations will be eligible to apply for the Baldrige Award.

Applications to serve on the board will be available in November 1998.

Additional information is available by calling 301/975-2036 or by visiting the Baldrige Award web site at <http://www.quality.nist.gov/examr99/>.

Recruit

(continued from page 1)

colleges; he collaborates with two university consortiums that enable underrepresented students to apply to multiple graduate schools with a single free application.

In addition to assisting with data and recruiting, the Graduate School provides fellowships to support students from underrepresented groups: Educational Opportunity Fellowships provide \$12,000 plus tuition to ten new students each year. The National Graduate Feeder Program provides \$15,000 plus tuition each year to five science or engineering students who come to UM from historically Black colleges and universities. The University's partnership with the United Negro College Fund provides tuition and assistantships.

Clayton urges faculty to contact him whenever they need data, outreach plans, or funding for students from underrepresented groups. Phone 612/625-6858, write to gsoeo@tc.umn.edu, or visit 303 Johnston Hall.

*See "Integrative Graduate Education and Research Training Program: Program Announcement" at <http://www.nsf.gov/home/crssprgm/igert/>; the next two sets of proposals are due 23 Nov. 1998 and 7 Sept. 1999.

by Phil Norcross

Graduate & Professional School Day

Wednesday, October 14, 10:00 to 3:00

Great Hall, Coffman Union

80 U.S. graduate and professional schools will be represented by recruiters.

Seminars will address how to apply, how to succeed on admissions tests, and how to find financial support. This is a public event, free of charge.

For information, call Lisa Murphy, CLA, 612/624-7577 or see www.oslo.umn.edu.

Success of Students of Color, UM Graduate School

Year	Applications from under-represented groups	New students of color enrolled	Total students of color	Masters' earned by students of color	Doctorates earned by students of color
1988	475	58	298	65	20
1989	556	78	326	65	21
1990	614	97	352	65	25
1991	806	112	393	70	19
1992	912	164	447	97	25
1993	934	149	524	104	17
1994	1,041	154	599	115	35
1995	922	172	651	151	34
1996 *	765	130	594	---	---

* Before '96 the Graduate School included the MBA program; it no longer does.

**National Science Foundation
Activities in Science, Engineering,
and Mathematics for Persons with
Disabilities**

NSF offers grants up to \$200,000 for three years for work to increase the participation of traditionally underrepresented communities in science, mathematics, engineering, and technology.

Demonstration projects: NSF will fund demonstrations of strategies to reduce the barriers that inhibit the interest, participation, retention, and advancement of persons with disabilities. Such strategies include access to materials and labs, mentoring, effective teaching methods, and teacher education. Preliminary proposals are required no later than November 1, full proposals February 2.

Technology Research & Development: Investigators might also pursue research and development for technology to help people overcome disabilities. Such work includes identification of disabled students' difficulties, description of solutions, and production, evaluation, and dissemination methods for new technology. Preliminary proposals are due November 2, full proposals February 1.

Information Dissemination: Thirdly, NSF seeks projects to disseminate information about strategies for recruitment, education, and retention of students with disabilities. The audience for such a project might be high school counselors, math and science teachers, university faculty, and disabled students and their families. Preliminary proposals are required no later than November 2, full proposals February 1.

See www.nsf.gov/pubs/1998/nsf98144/nsf98144.txt.

**National Science Foundation
Facilitation Awards for Scientists
and Engineers with Disabilities**

As a part of other proposals, or as supplements for existing projects, NSF invites requests for special equipment or assistance that will aid scientists and engineers with disabilities. The invitation extends to research, education, and fellowship programs. Funds may be used for modifying or buying equipment or for providing special services, providing the equipment or services are specific to the scientific or technical work in question. For example, the funds may be used to create a prosthesis necessary to using an NMR instrument, but not to create a general purpose artificial limb.

See www.nsf.gov/pubs/stis1994/nsf9154/nsf9154.txt

**Ethnicity of U.S. Citizens in
U.S. Graduate Schools, 1996**

Field of study	Total	Black Am'n Indian, Asian Latino	Percentage White
Physical sciences	21,158	4,417	79%
Earth sciences	12,509	1,559	88%
Mathematics	12,254	3,053	75%
Computer sciences	22,755	8,312	63%
Agriculture	8,966	1,234	86%
Biological sciences	46,639	10,312	78%
Psychology	51,374	11,947	77%
Social sciences	73,605	19,307	74%
Engineering	68,173	19,094	72%
Health sciences	74,119	14,986	80%
Totals	391,552	94,221	76%

Source: NSF

Keeping Our Faculties

Addressing the Recruitment and Retention of Faculty of Color in Higher Education

A symposium for administrators, affirmative action officers, faculty, policy makers, researchers, and students

Sunday October 18 through Tuesday October 20

Radisson Metrodome, East Bank

At a time when race-based scholarships are under scrutiny, when affirmative action in hiring and admissions are losing support, and when efforts to achieve diversity and equity in higher education are contested, there is a need to frankly address issues of recruitment, retention, and development.

This two-day national symposium will provide an arena for dialogue among scholars, practitioners, and policy makers to promote a more attractive, welcoming, and nurturing workplace for faculty of color.

Registration for UM employees is \$100 through October 2; for students, it's \$50. Contact Shirley Mueffelman, Conference Services, 202 Nolte, 612/625-3850, smueffel@mail.cee.umn.edu. See www.aamd.umn.edu/symposium/sympos.htm

The U.S. Population of Black Faculty

At the 25 highest-ranked U.S. universities, there were 35,414 full-time faculty in 1996; of that total, 3.1 percent, or 1,084 faculty members, were black. *

High-ranking colleges and universities almost universally summon what is known as the *pipeline defense*: "There are so few African Americans earning Ph.D.s and seeking jobs in the academic world that it is extremely difficult, if not impossible, to find qualified candidates."

But the U.S. Department of Labor reports huge growth in the number of blacks currently teaching on college campuses. Between 1993 and 1997, the total number of blacks employed as college and university teachers grew 56 percent, from 37,056 to 56,485.

It is almost statistically impossible that there do not now exist many dozens of African-American scholars qualified to move into tenured positions at the most prominent universities in America.

Excerpted from Theodore Cross, "The black faculty count at the nation's most prestigious universities," Journal of Blacks in Higher Education, April-June 1998, pp. 109-115.

* Cross's top 25 do *not* include the University of Minnesota. For 1997, UM Human Resources reports a faculty of 2,938 members that was 90 percent white and 1.5 percent black. For 1995, the U.S. Department of Education reports a total of 561,152 faculty in the U.S.; 84 percent of them were white and 5 percent were black.

Ethnicity of UM Graduate Students, 1997-98

Field of study	Total	Black, Am'n Indian, Asian Latino	Percentage White
Physical sciences	2,119	164	92%
Biological sciences	848	72	92%
Education, Psychology	1,315	133	90%
Social sciences	1,509	169	89%
Health sciences	688	53	92%
Language, Literature, Arts	823	85	90%
Totals	7,302	676	91%

Grants Management Update

One of the goals of the Grants Management projects was to make it easier for principal investigators and administrators to obtain timely information about the sponsored projects they manage.

An important tool that has been developed to help achieve this goal is FormsNirvana—an electronic form preparation, routing, and approval system. The system used to process financial transactions is called Financial FormsNirvana (FFN). The Electronic Grants Management System (EGMS) is used to process grant proposals which includes a component of FormsNirvana to route the Proposal Routing Form (formerly called BA23 form) and proposal electronically through the university approval process.

Using FFN to process documents gets transactions to the financial system faster, which in turn makes financial reports on grants more accurate since there is less lag time in posting transactions to the general ledger.

Since August 1996, a number of financial documents have been adapted to FFN. The POT (Purchase Order) document came on board first in August 1996; the IV (Intra-Institutional Voucher), IX (Expense Transfer), and JV (Journal Voucher) documents in January 1997; and the PY8 (Payroll Type 38 Journal Voucher) document in February 1998. The most recent addition is the PV (Payment Voucher) added in June 1998.

As each document is added to the system, and more departments are trained to use FFN, more and more transactions are processed using the system. The growth in use of FFN has been exponential. From May to June, 1998, the number of documents processed through FFN doubled. The current number of users of FFN is 742. EGMS and EGMS FormsNirvana users now total 592.

As a consequence of this steady growth, the performance of this application has been of great concern. Many users of FFN were experiencing poor response times when submitting requests or attempting to process documents. A team of experts from the Enterprise projects, Networking and Telecommunications Services (NTS), FormsNirvana, EGMS, Central Computing Operations (CCO), Financial Systems Support (FSS), and ORTTA are working together

to address performance. Some of the things they have been doing are monitoring connections of various servers on the network to find bottlenecks, systematically replacing connections to the old campus backbone with connections to the new one, and working with departments that manage “private” LANs to ensure the best possible performance.

The FFN application has also been enhanced by updating some of the edits to make them run more quickly while still performing the same functions. Some new programming techniques were used to speed up parts of the system, and modifications were made to some of the more complex list generators and searches to enable them to run faster.

Performance issues were more pronounced in June and July 1998 with the significant increase in transaction

volume of FFN documents. The good news is that when we put all the performance improvements together, performance is getting better than ever while handling a larger volume of documents than ever.

FFN is one of the first large-scale interactive web applications running over the complex network here at the University. As a result, there are a lot of challenges as we roll out additional projects, such as EGMS and Peoplesoft. With the additional performance

enhancements being planned and tested, we expect things to improve even more. We look forward to continuing our growth in use of FormsNirvana, a major component of the improved grants management process at that University.

by Win Ann Schumi, Grants Management Project

Grants Management Project GMP Office Has Relocated

The office for the Grants Management Project, formerly in Jackson Hall, is now located in 429 Johnston Hall.

Telephone calls regarding grants management topics may be directed to David Hamilton, Project Director, at 612/625-2967 or Win Ann Schumi, Project Manager, at 612/625-2946.

The office is staffed full time by Jennifer Maybery. She may be reached at 612/625-2967.

Research Subjects' Protection Programs

Dale Hammerschmidt:

Regulations & Red Tape Are to be Dealt With, Not Relied On

Dale Hammerschmidt reconciles a healthy respect for the rules and regulations with a strong sense of their shortcomings.

As UM's new director of IRB education, a third of his time now goes to helping human-subjects' committees and would-be investigators get along with one another. At the same time, he speaks of the regulatory process as sometimes a bit narrow-minded and lacking in credibility.

"There is a certain irony," he says, "in a regulatory agency demanding great evidence of efficacy and safety for a new drug, while quite merrily introducing new regulatory requirements without demonstrating, or even testing post-hoc, that they will do good at an acceptable cost."

Educator, guide, and consultant to would-be investigators seeking IRB approval, Hammerschmidt took on the newly created, one-third time job last April. He took it because "a lot of the delays and problems should be avoidable, to everybody's advantage.

"Most researchers have the best interests of their subjects at heart, most research is ultimately approvable, and most researchers have no intention of breaking the rules," Hammerschmidt says. "But many find the process perplexing, complex, and aggravating. It often appears arbitrary or inconsistent, and sometimes it even is. I hope to help researchers interact with the oversight process in a way that will be easier to do well."

Towards that end, Hammerschmidt's three "tools" are educating IRBs and researchers, coaching, and improving the IRB process.

Conflict of interest is a very broad concept that is in some cases very narrowly defined for regulatory purposes. Conflicts of interest are everywhere, and one can rarely have the luxury of acting in their complete absence. If a subtle conflict exists and is known, it's best to disclose it, at least to oversight bodies. But it's often hard to decide just which conflicts are great enough that they should also be disclosed to subjects. It can also be hard to decide when a conflict is great enough that the researcher should distance himself from the decisions it might influence. Really slimy conflicts that suggest the researcher is abusing his position are easier—but they're also pretty darned uncommon.

—Dale Hammerschmidt

He'd like more expertise and consistency among IRB members, and he wants to help committees address more problems *before* meetings and thus avoid delays.

He will educate researchers about both the basic concepts and the "sometimes picky" procedural details, so that they can more often get IRB approval in the first attempt.

Coaching, says Hammerschmidt, "means I'm available to meet with investigators with projects for which oversight may be problematic. I can also meet with investigators who are simply buffaloes by the process. I'm no longer an IRB chair, and no longer in a position to mediate disputes, but I can help folks understand the problem and the remedies available."

Thirdly, Hammerschmidt says he will advise the leaders of the UM IRB regarding changes that will make the process more explanatory to those using it, "so that folks are less often blind-sided by a rule or requirement they didn't know about."

Hammerschmidt is an associate professor of medicine, senior editor of the *Journal of Laboratory and Clinical Medicine*, a clinical hematologist-oncologist, and a twenty-year veteran of this university's human subjects' committees. For ten years, he chaired IRBs.

As a clinician, he works chiefly on clotting disorders and immune disorders causing anemia or low platelet counts, and leukemia/lymphoma. As a bench researcher, he once (but no longer) studied the ability of stimulated white blood cells to do tissue injury in situations like shock.

"I've been in the position of investigator feeling grumpy about IRB requirements," he points out. "I've also been in the position of being grumpy about investigators who don't do their homework. And I have been on committees investigating research misconduct allegations."

He has also performed site visits for federal agencies, drafted state research guidelines, and published about the consent process and the legal obligations and liabilities of oversight bodies.

Hammerschmidt serves investigators throughout the University and in the Fairview system as well. He can be reached at hamme001@tc.umn.edu, fax 612/626-2642, voice mail 612/626-2640, beeper #2279 at 612/626-3000, and box 480, Mayo building. He works closely with Moira Keane of the Research Subjects Protection office and Peggy Sundermeyer of the Office of the Vice President for Research, whom he calls "a huge help."

by Phil Norcross

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

McNaron, T.A. *Poisoned Ivy: Lesbian and Gay Academics Confronting Homophobia*. Philadelphia: Temple University Press, 1996.

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Health Care Management & Health Sciences

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**Please send your new citations to
phil@ortta.umn.edu.**

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

Food and Drug Administration

Clinical Studies of Safety and Effectiveness of Orphan Products RFA-FDA-OPD-99

The Food and Drug Administration (FDA) announces its Orphan Products Development (ODP) program for fiscal year 1999. Changes have been made to the program, so this announcement supersedes all previous announcements. Funds are to support clinical trials on the safety and effectiveness of products for a rare disease or condition (i.e., one with a prevalence, not incidence, of fewer than 200,000 people on the U.S.). Orphan products are drugs, biologics, medical devices, and foods for medical purposes that are indicated for such a disease or condition.

Except for medical foods that do not require premarket approval, FDA will only consider awarding grants to support clinical studies for determining whether the products are safe and effective for premarket approval.

It is anticipated that \$11.3 million will be available, of which \$8.8 million will be for noncompeting continuation awards. This will leave \$2.5 million for funding approximately 10 new applications. Awards may be for up to \$100,000 in direct costs per year, plus applicable indirect costs, for up to 3 years.

The application deadline is **November 2, 1998**. Application forms are available from, and completed proposals are to be mailed to, Robert L. Robins, grants management officer, Division of Contracts and Procurement Management (HFA-522), Food and Drug Administration, 5600 Fishers Lane Room 2129, Rockville, MD 20857; 301/827-7185. Forms may also be found at http://www.nih.gov/grants/funding/phs398/forms_toc.html.

Army Medical Research and Materiel Command Ovarian Cancer Research

The Army Medical Research and Materiel Command is inviting program project applications for multidisciplinary research on ovarian cancer. The proposed work should incorporate at least two projects built around a common theme, addressing ovarian cancer prevention and/or etiology. One research project must be speculative, but with the potential for high payoff, and one must be a new investigator project.

\$8.5 million is available. The maximum individual award is \$2 million over a two-to-four year project period. *Institutions may submit only one proposal.* Call the Cancer Center at 612/624-8484 for further internal information.

The application deadline is **November 10, 1998**. For further information contact Craig Lebo, USAMRAA, 820 Chandler Street, Fort Detrick MD 21704-5014, 301/619-2036. A complete copy of the announcement may be accessed at <http://mrmc-rad6.army.mil>. Refer to 074&&&-9806-0003.

Neurofibromatosis

The Army Medical Research and Materiel Command is inviting program project applications for research to foster new directions for, address neglected issues in, and bring new investigators into the field of neurofibromatosis research. The goal is to sponsor basic research leading to clinical trials relevant to neurofibromatosis that will result in substantial improvements in the understanding, diagnosis, and treatment of the disease and enhance the quality of life for those living with the disease.

The program will give preference to proposals that expand knowledge about the genes that contribute to the disease beyond the gap-related domain; are aimed at defining the genetic and non-genetic factors that play a role in tumor formation, growth, and progression; and focus on how neurofibromatosis 1 and neurofibromatosis 2 protein function or lack of function leads to pathogenesis. This year's program permits institutional postdoctoral fellowships as an optional part of the project.

\$7 million is available to make eight to twelve awards.

The application deadline is **October 14, 1998**. For further information contact Craig Lebo, USAMRAA, 820 Chandler Street, Fort Detrick MD 21704-5014, 301/619-2036. A complete copy of the announcement may be accessed at <http://mrmc-rad6.army.mil>. Refer to 074&&&-9806-0002.

■ National Institute of Standards and Technology Precision Measurement Grants

The National Institute of Standards and Technology is seeking project proposals for two research grants for fiscal year 2000 in the field of precision measurements and fundamental constants. NIST Precision Measurement Grants are awarded each year to faculty members of U.S. universities or colleges for work in determining values for fundamental constants, investigating related physical phenomena, or developing new, fundamental measurement methods.

Prospective candidates must submit summaries of their proposed projects and biographical information. An application should include a pre-proposal summary of not more than five double-spaced pages outlining the objective, motivation, and technical approach of the research, and the amount and source of current funding for the research, together with a concise biographical sketch of the applicant and a list of the applicant's most important publications. On the basis of this material, four to eight semifinalists will be selected to submit more detailed proposals.

Each Precision Measurement Grant of \$50,000 for one year may be renewed by NIST for up to two additional years for a total of \$150,000.

The submission deadline for pre-proposals is **February 1, 1999**. Ten copies of the pre-proposal should be submitted to Barry N. Taylor, B161 Technology Building, NIST, Gaithersburg, MD 20899-0001. For further information contact Taylor at 301/975-4220, or visit the Precision Measurements Grants World Wide Web page at <http://physics.nist.gov/ResOpp/grants/grants.html>.

■ Department of Energy Outstanding Junior Investigator Program

The Division of High-Energy Physics, Office of Energy Research, Department of Energy, announces its interest in receiving grant applications for support under its Outstanding Junior Investigator (OJI) program. The purpose of this program is to support the development of the individual research programs of outstanding scientists early in their careers.

Applications should be from non-tenured, but tenure-track faculty investigators who are currently involved in experimental or theoretical high-energy physics, or accelerator physics research. The full range of activities

{next column}

currently supported by the Division of High-Energy Physics is eligible for support under this program.

DOE expects to make five to ten grant awards in fiscal year 1999. Approximately \$400,000 will be available, with awards averaging \$50,000 per year. Multiple year funding is anticipated.

The application deadline is **November 4, 1998**. Completed applications referencing Program notice 98-18 should be forwarded to the U.S. Department of Energy, Office of Energy Research, Grants and Contracts Division, ER-64, 19901 Germantown Road, Germantown, Maryland 20874-1290. For further information contact Dr. Jeffrey Mandula, Division of High Energy Physics, ER-221 (GTN) at the same address; 301/903-4829, mandula@hep2.er.doe.gov.

General information about development and submission of applications, eligibility, limitations, evaluations and selection processes, and other policies and procedures are contained in the Application Guide for the Office of Energy Research at <http://www.er.doe.gov/production/grants/grants.html>.

■ National Endowment for the Arts Study of Jazz Artists

The National Endowment for the Arts is requesting proposals leading to the award of a cooperative agreement for a study of jazz artists in four cities. The cities will be chosen from among the following pairs: New York/Philadelphia, Detroit/Kansas City, Atlanta/New Orleans, San Francisco/Los Angeles.

The issues to be considered will include venues for performance, distribution of work through recordings, education and training, and extent of participation in health insurance and retirement programs.

The application deadline is **October 19, 1998**. Requests for the solicitation should be addressed to the National Endowment for the Arts, Grants and Contracts Office, Room 618, 1100 Pennsylvania Avenue NW, Washington, DC 20506; 202/682-5482. Only written requests referencing PS 98-06 will be honored.

■ Environmental Protection Agency Investigator-Initiated Grants

Information is provided on the availability of the fiscal year 1999 investigator-initiated grants program. The U.S. Environmental Protection Agency (EPA) invites research grant applications in the following areas of special interest:

1. Airborne particulate matter centers; October 28
Deran Pashayan (pashayan.deran@epamail.epa.gov)
202/564-6913
2. Endocrine disrupters (in cooperation with other agencies); September 16
David Reese (reese.david@epamail.epa.gov)
202/564-6919
3. Children's vulnerability to toxic substances in the environment. September 30
Chris Saint (saint.chris@epamail.epa.gov)
202/564-6909

The complete announcement may be accessed on the Internet from the EPA home page: <http://www.epa.gov/ncercqa/> under "announcements."

■ Department of Defense Department of the Navy Archaeological Investigation

The Department of the Navy is requesting proposals for the archaeological investigation of the H.L. Hunley, lost off the coast of Charleston, South Carolina, on February 17, 1864, after successfully attacking the USS Housatonic. In 1996 the Navy entered into a programmatic agreement under Section 106 of the National Historic Preservation Act for the management of this historic shipwreck. Other parties to the agreement are the General Services Administration, the Advisory Council on Historic Preservation, the South Carolina Hunley Commission, and the South Carolina State Historic Preservation Office. The agreement requires decisions on the suitability of proposals for the recovery and presentation of the Hunley.

Individuals and organizations should submit proposals regarding the archeological investigation of the Hunley. Any party interested in implementing any of the following aspects of archeological investigation including 1)

data recovery at the site, 2) raising of the vessel, 3) recovery and treatment of human remains, 4) conservation and curation, 5) public participation and education during the archeological investigation, and 6) future exhibition and interpretation, must submit a comprehensive proposal and an overall financial plan to the Navy. The proposal must also include an abstract suitable for public distribution and comment.

The application deadline is **November 1, 1998**. Copies of the programmatic agreement are available from the Naval Historical Center, Underwater Archaeology Branch, Washington Navy Yard, 901 M Street SE, Washington, DC 20374-5060; 202/433-9784, or the Naval Historical Center Homepage: <http://www.history.navy.mil>. For other information contact Dr. Robert S. Neyland, underwater archaeologist, Naval Historical Center, same address and telephone number.

■ State of Minnesota Higher Education Services Office Eisenhower Professional Development Program

The 1998-99 request for proposals for the higher education Eisenhower Professional Development Program has been announced. Competitively awarded grants must provide sustained and intensive high-quality professional development for elementary and secondary teachers in mathematics and science and the other core academic subjects, or improvements to mathematics and science teacher education programs. In addition, for this year there has been a one-time earmarking of a portion of the funds to support professional development in reading.

Funded projects must be conducted between February 8, 1999, and May 31, 2000. \$786,603 in federal funds is available to support the awards. Technical assistance sessions are being offered at six sites throughout the state during the month of September.

The application deadline is **November 17, 1998**. The RFP is available online at <http://www.heso.state.mn.us/federal/fedprog.htm>. A written request may also be submitted containing the name, title, address and telephone number of the applicant. These should be mailed or faxed to Dr. Nancy B. Walters, program manager, Minnesota Higher Education Services Office, 400 Capitol Square Building, 550 Cedar Street, St. Paul, MN 55101; 651/296-9777, fax 651/297-8880, walters@heso.state.mn.us.

Library of Congress National Digital Library

The Library of Congress is sponsoring a competition to enable public, research, and academic libraries, museums, historical societies, and archival institutions to create digital collections of primary resources for distribution on the Internet. The program has been enabled by a gift from Ameritech.

In the 1998-99 competition year, applications will be limited to collections of textual and graphic materials that illuminate the period 1492-1920 and that complement and enhance the American Memory collections in the National Digital Library. In the final selection among meritorious projects, consideration will be given to the historical subjects emphasized in the guidelines and to the size, type, and geographical location of the applicant institution. The evaluation criteria are:

- The significance of the collection's content for understanding United States history and culture, as well as its breadth of interest and utility to students and the general public;
- The availability and usability of aids to intellectual access that can be integrated into the American Memory resource;
- The technical and administrative viability of the project's plan of work in relation to the scope of the project.

Awards will be made of up to \$75,000 to individual institutions and up to \$150,000 to eligible consortia for projects that can be accomplished in twelve to eighteen months. Only costs directly associated with digital conversion may be included in the application; equipment may not be purchased with award funds.

The application deadline is **November 2, 1998**. For further information contact Ariel Rosenblum, 202/707-1087, fax 202/252-3249, lc_ameritech@loc.gov. Guidelines and application instructions are available online at <http://memory.loc.gov/ammem/award/>.

Minnesota Project Innovation Federal Small-Business Technology Transfer Programs

Through five federal agencies, the Small Business Technology Transfer (STTR) Program funds collaborations between small businesses and academic researchers.

The STTR program provides up to \$100,000 for a one-year feasibility study and \$500,000 for further research and development for up to two years. It does not fund commercialization work.

STTR grants go to commercial businesses collaborating with nonprofit research institutions. The businesses must have 500 or fewer employees. At least 30 percent of each grant must be spent by the research institution.

The Small Business Innovation Research (SBIR) program does not require businesses to collaborate with nonprofit researchers, but it does favor such collaborations. Ten federal agencies participate in the SBIR, accounting for \$1.2 billion in the fiscal year that ends October 1.

Deadlines for proposals vary from agency to agency, as follows:

STTR

NIH	December 1, 1998
.....	April 1, August 1, 1999
NSF	January 1999
Defense	April 1999
NASA	May 1999
Energy	December 1999

SBIR

NIH	November 5, December 15, 1998
.....	April 15, August 15, 1999
Defense	January 1999
Commerce	January 1999
Energy	March 1999
Education	March 1999
Transportation	May 1999
NSF	June 1999
NASA	July 1999
USDA	September 3, 1998
EPA	November 19, 1998

For more information, contact Pat Dillon, director of federal R&D funding programs at Minnesota Project Innovation, 612/338-3280, pdillon@mpi.org, www.mpi.org.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Phil Norcross at ORTTA, phil@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
July 1998	285	\$ 51,829,001
Awards Processed		
July 1998	349	34,337,863
Proposals Submitted		
July 1997	268	54,088,503
Awards Processed		
July 1997	236	25,977,370

Medical Scientist Training Program

Martin Dworkin, Microbiology

NIH, NIGMS
\$311,712 - 7/1/98-6/30/99

The Effect of LDL-Cholesterol Lowering Beyond Currently Recommended Levels

Donald B. Hunninghake, Pharmacology
Larry W. Kotek, Medicine

Icon Clinical Research
\$270,000 - 6/24/98-6/23/05

Cloning of a DNA Ligase Involved in Mitochondria DNA Repair

Uma Lakshminpathy, Pharmacology

American Heart Association, Minnesota Affiliate
\$76,000 - 7/1/98-6/30/99

Characterization of a Transgenic Mouse Model of OCD

Frank H. Burton, Pharmacology

National Alliance for Research on Schizophrenia and Depression
\$60,000 - 7/1/98-6/30/99

Faculty Development in Family Medicine

William E. Jacott, Family Practice and Community Health

Health Resources and Services Administration
\$150,831 - 7/1/98-6/30/99

Mapping Viral Determinants of Murine Inflammatory Myopathy

Ronald P. Messner, Medicine
Patricia E. Tam, Medicine

Arthritis Foundation
\$79,488 - 7/1/98-6/30/99

Renal in Chronic Renal Failure Patients Not Requiring Dialysis

Mark S. Paller, Medicine
Connie L. Manske, Medicine

Boston Healthcare Associates, Inc.
\$59,040 - 6/18/98-6/17/99

The Role of Clusterin in Renal Disease

Richard Girton, Medicine

NIH, NIDDK
\$34,144 - 7/1/98-6/30/99

Overexpression of Amaloid Precursor Protein in Cerebrovascular Regulation

Costantin Iadecola, Neurology

NIH, NINDS
\$197,760 - 7/1/98-5/31/99

Zenarestat (CI-1014) in the Treatment of Diabetic Neuropathy

Gareth Parry, Neurology
Praful Kelkar, Neurology
John Day, Neurology

Parke-Davis Pharmaceutical Research Division
\$323,000 - 4/1/98-9/30/00

Enhanced Engraftment in Allogeneic Bone Marrow Transplantation

Paul J. Orchard, Pediatrics
Jeffrey Miller, Medicine
John Wagner, Pediatrics

National Marrow Donor Program
\$237,616 - 7/1/98-6/30/00

Role of Monocyte-Derived Nitric-Oxide in Cardiopulmonary Injury

Imad Y. Haddad, Pediatrics

American Heart Association, Minnesota Affiliate
\$83,140 - 7/1/98-6/30/99

Effect of Motor Learning Procedures on Brain Reorganization

James R. Carey, Physical Medicine and Rehabilitation
Kamil Ugurbil, Radiology

U.S. Department of Education
\$105,969 - 7/1/98-6/30/99

Center Grant for Eating Disorders Research

Scott J. Crow, Psychiatry

McKnight Foundation
\$400,000 - 1/1/98-12/31/01

Early Developmental Pathways of Childhood Anxiety

Susan L. Warren, Psychiatry

NIH, NIMH
\$146,565 - 7/1/98-6/30/99

Cancer Epidemiology with Focus on Nutrition

Leslie L. Robison, Pediatrics

NIH, NCI
\$184,553 - 7/1/98-4/30/99

Correlation of Chemical and Biological Indicators

Donald Vesley, Environmental and Occupational Health

Minnesota Mining and Manufacturing Co.
\$26,479 - 5/1/98-12/31/98

Center for Leadership Education in Maternal and Child Nutrition

Mary Story, Epidemiology

Health Resources and Services Administration
\$204,212 - 7/1/98-6/30/99

Allina Tobacco-Free-Future Demonstration Project

Jean L. Forster, Epidemiology

Allina Health System
\$172,923 - 4/1/98-3/31/01

National Comparison of the Medicare Hospice Benefit: Comparison of Use under the Fee-for-Service and HMO Options

Beth A. Virnig, Health Management and Policy
A. M. McBean, Health Services Research

Commonwealth Fund
\$156,729 - 5/1/98-10/31/99

Family Planning Services Special Project

Amos S. Deinard, Community University Health Care Center

St. of Minn., Department of Health
\$206,483 - 1/1/98-12/31/99

Cultural Education and Connection for High-Risk Native Americans

Amos S. Deinard, Community University Health Care Center
Archie D. and Bertha H. Walker Foundation
\$5,000 - 6/1/98-5/31/99

Oral Health Services for Older Adults

Stephen K. Shuman, Preventive Sciences
Amherst H. Wilder Foundation
\$49,000 - 7/1/98-6/30/99

1998 Food-Animal Biotechnology Center Symposium

Craig W. Beattie, Veterinary Pathobiology
U.S. Department of Agriculture
\$5,000 - 6/26/98-6/27/98

Studies of Aerodynamic Breakup, Cavitation, and Rupture of Fluids

Daniel D. Joseph, Aerospace Engineering and Mechanics
USDoD-army
\$75,000 - 5/1/98-4/30/99

Modeling the High-Pressure Vertical Bridgman Growth of Cadmium Zinc Telluride Crystals

Jeffrey J. Derby, Chemical Engineering and Materials Science
Sandia National Laboratories
\$36,000 - 4/15/98-9/30/98

Thermoplastic Polyurethane Blends

Chrisopher Macosko, Chemical Engineering and Materials Science
ICI Polyurethanes Group
\$16,000 - 3/1/98-8/31/98

Variational Transition State Theory

Donald G. Truhlar, Chemistry
U.S. Department of Energy
\$110,000 - 7/1/98-6/30/99

Development of Load-Deformation Models for Iron Ore Tailings

Bjorn Birgisson, Civil Engineering
Andrew Drescher, Civil Engineering
St. of Minn., Department of Natural Resources
\$71,300 - 1/1/98-6/30/99

Three-Phase Power Factor Correction Circuits

Ned Mohan, Electrical Engineering
Rockwell Collins, Inc.
\$16,500 - 6/1/98-10/30/98

Minnesota Arsenic Research Study: Geochemistry

Michael E. Berndt, Geology and Geophysics
St. of Minn., Department of Health
\$48,000 - 6/23/98-9/28/99

Design, Modeling, and Computation of Active Thin Films

Mitchell Luskin, Mathematics
Richard D. James, Aerospace Engineering and Mechanics
USDoD, Army
\$94,991 - 6/1/98-5/31/99

Integrated Modeling, Analysis, and Manufacturing of Ultra Pure Flowmeter

Kumar Tamma, Mechanical Engineering
Futurestar Corp.
\$92,120 - 6/1/98-12/31/99

An Investigation of Sulfur Chemistry in the Antarctic Troposphere

Peter H. McMurry, Mechanical Engineering
National Science Foundation
\$31,294 - 5/15/98-4/30/99

Homme Dam Spillway, Physical Model Study

Richard L. Voigt, Jr., St. Anthony Falls Laboratory
Barr Engineering Co.
\$59,725 - 2/18/98-7/1/98

Task Builder: Methodology for Constructing Mixed-Initiative Systems

Caoline Hayes, Veterinary Diagnostic Lab
USDoD-Air Force
\$123,685 - 4/15/98-11/14/98

The Impact of a Recurrent Coastal Plume on Phosphorus Dynamics in Lake Michigan

James Cotner, Ecology, Evolution, and Behavior
University of Michigan
\$85,099 - 1/1/98-8/30/99

Monarchs in the Classroom Summer Workshop

Karen Oberhauser, Ecology, Evolution, and Behavior
St. of Minn., Higher Education Services Office
\$65,309 - 2/17/98-6/30/99

Plant Biology Workshop for Elementary Teachers

Thomas Soulen, Plant Biology
Sandra Tanck, Landscape Arboretum
St. of Minn., Higher Education Services Office
\$38,970 - 2/17/98-6/30/99

Cognitive Science Training Program

Albert Yonas, Child Development
Paul Van Den Broek, Educational Psychology
NIH, NICHD
\$219,358 - 7/1/98-4/30/99

Bayesian Analysis, Computation, and Communication in the Social Sciences

John Geweke, Economics
Siddharth Chib, Economics
National Science Foundation
\$79,481 - 7/1/98-6/30/99

An Encyclopedic Dictionary of English Etymology

Anatoly Liberman, German, Scandinavian, and Dutch
Minnesota Humanities Commission
\$2,500 - 6/5/98-9/30/98

Japanese Teachers of English Program

Eric S. Nelson, English as a Second Language
Council on International Educational Exchange
\$25,559 - 6/1/98-8/31/98

An African-Centered Approach to Composition

Elaine Richardson, General College
Minnesota Humanities Commission
\$2,500 - 6/29/98-10/15/98

Evaluation of Incentive-Based Pollutant-Reducing Payments

Kent Olson, Applied Economics
St. of Minn., Pollution Control Agency
\$20,000 - 2/25/98-9/30/99

Management Methods to Aid Adoption of Integrated Weed Management

Nicholas Jordan, Agronomy and Plant Genetics
Roger L. Becker, Agronomy and Plant Genetics
Jeffery L. Gunsolus, Agronomy and Plant Genetics
Purdue University
\$36,298 - 7/1/98-6/30/00

Weed Control in Reduced Tillage Soybeans

Gregg Johnson, Agronomy and Plant Genetics
Donald L. Wyse, Agronomy and Plant Genetics
Minnesota Soybean Research and Promotion Council
\$26,926 - 4/1/98-4/30/99

Risk Assessment Model for Pink Bollworm

William D. Hutchison, Entomology
Cotton, Inc.
\$10,500 - 1/1/98-12/31/98

National Minority Graduate Student Scholarships: Africa
Sagar V. Krupa, Plant Pathology
Colorado State University (USDA Prime)
\$24,000 - 3/15/98-3/14/99

The Retail Food Industry Center
Mark L. Kinsel, Clinical and Population Sciences
Alfred P. Sloan Foundation
\$1,500,000 - 7/1/98-6/30/01

Minnesota Wool as a Value-Added Horticultural Mulch
William A. Head, West-Central Agricultural Experiment Station, Morris
Agricultural Utilization Research Institute
\$10,000 - 6/1/98-9/1/99

Burning and Corn Gluten for Weed Control in Strawberries
David K. Wildung, North-Central Ag. Experiment Station, Grand Rapids
St. of Minn., Department of Agriculture
\$2,200 - 7/1/98-12/31/99

No-Till Injection of Swine Manure for Corn
Lowell M. Busman, Southern Agricultural Experiment Station, Waseca
Gyles Randall, Southern Agricultural Experiment Station, Waseca
Minnesota Pork Producers Association
\$6,350 - 5/1/98-9/1/99

Tiger Conservation and Priority Areas for Ecological Restoration
James L. Smith, Fisheries and Wildlife
National Fish and Wildlife Foundation
\$44,000 - 4/1/98-3/31/99

Measuring Bile Acids in Cell Culture Media
Peter Sorensen, Fisheries and Wildlife
Purdue University
\$13,387 - 3/1/98-2/28/99

Lower Minnesota River Watershed Active Citizenship
James L. Anderson, Soil, Water, and Climate
Diana Martenson, Minnesota Extension Service
Barbara. Liukkonen, Water Resources Center
Metropolitan Council of the Twin Cities
\$100,000 - 1/1/98-12/31/99

Transportation Planning Assistance for the East Grand Forks/Grand Forks Metropolitan Area
William Morrish, Center for the American Urban Landscape
Todd Rhoades, Architecture
Miscellaneous Agency
\$140,000 - 3/30/98-10/31/98

Adaptation from Childhood to Adulthood: A Longitudinal Study
Ann S. Masten, Child Development
Auke Tellegen, Psychology
National Science Foundation
\$93,196 - 5/15/98-4/30/99

Evaluation of Agricultural Health and Safety Curricula
Karen S. Louis, Educational Policy and Administration
Elisabeth Palmer, Educational Policy and Administration
St. of Minn., Department of Health
\$18,782 - 6/19/98-5/31/99

Research and Evaluation Services for St. Paul Schools
Geoffrey M. Maruyama, Educational Psychology
St. Paul Public Schools
\$83,885 - 7/1/98-6/30/99

Studies of Persons with Developmental Disabilities in the 94-95 Disability Supplement to the National Health Interview Survey
K. Charlie Lakin, Educational Psychology
Sherry Larson, Community Integration
U.S. Department of Education
\$76,066 - 7/1/98-6/30/99

Developing and Evaluating Effective Methods in Wilderness Education
Leo H. McAvoy, Jr., Kinesiology and Leisure Studies
U.S. Department of Agriculture
\$32,000 - 6/26/98-12/31/00

Transportation Policy Research Project
Lee Munnich, Humphrey Institute
St. of Minn., Department of Transportation
\$172,356 - 5/1/98-4/30/00

Experience of Families Where Both Children and Their Mothers are Abused
Jeffrey Edleson, Social Work
Sandra K. Beeman, Social Work
David and Lucile Packard Foundation
\$109,445 - 7/1/98-9/30/99

National Manufacturing Capabilities and the Sustainability of Innovation: The U.S. Flat Panel Display Industry in Global Context
Stefanie Leaway, Strategic Management Research Center
Alfred P. Sloan Foundation
\$30,000 - 6/1/98-6/30/99

Youth Development Training
Nan Skelton, Humphrey Institute
St. of Minn., Department of Children, Families, and Learning
\$2,000 - 1/1/98-5/31/98

Public Mapping Project
Harry C. Boyte, Humphrey Institute
University of Richmond
\$100,000 - 3/1/98-2/28/99

Meeting the Challenges of World-Class Language Standards
Diane Tedick, Curriculum and Instruction
St. of Minn., Higher Education Services Office
\$36,917 - 2/17/98-6/30/99

Lipase Control by Protein-Induced Lipid Reorganization
Howard L. Brockman, Jr., Hormel Institute
NIH, NHLBI
\$250,669 - 6/1/98-5/31/99

Development of Novel Combinations of Growth Inducers
Zoltan Kiss, Hormel Institute
Sota Tec Fund
\$189,915 - 3/1/98-2/28/99

Integrating Research Findings Into Public Learning
Barbara Lukermann, Humphrey Institute
St. of Minn., Department of Transportation
\$38,900 - 7/13/98-10/31/99

Breaking New Trails: A Look at Modern-Day Mushing
Sharon Kemp, Sociology/Anthropology, Duluth
Minnesota Humanities Commission
\$2,500 - 6/5/98-4/1/99

Middle Stone Age Archaeology in the Serengeti National Park
John R. Bower, Archaeometry Laboratory, Duluth
Leakey Foundation
\$4,000 - 7/1/98-12/31/98

Climate Sediment Linkages in Lake Malawi, Africa, During El Nino Southern Oscillation
Thomas C. Johnson, Large Lake Observatory
National Science Foundation
\$49,996 - 7/1/98-6/30/99

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City, State, Zip (if off campus): _____

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RESEARCH REVIEW

Office of Research and Technology Transfer

October 1998

The Research Vessel Blue Heron is the UMD's New Floating Lab on Lake Superior

Now operated by the Large Lakes Observatory at UMD, the Research Vessel Blue Heron originally worked as a fisher of the Grand Banks, off New England and Nova Scotia. The University bought it in '97 and refitted it for research purposes last winter.

The Blue Heron can take a crew of nine onto Lake Superior for as long as ten days at a stretch. That crew can map the lake floor with a range of echo and seismic-reflection instruments. They can measure the speed and direction of water currents, vertical and horizontal, at any depth. They can also measure water temperature, salinity, clarity, and chlorophyll concentration. And they have tools for collecting core samples from the lake floor.

In related news, UMD created the UMD Center for Freshwater Research and Policy last August. The center's job is to centralize information and encourage

{continued on page 3}

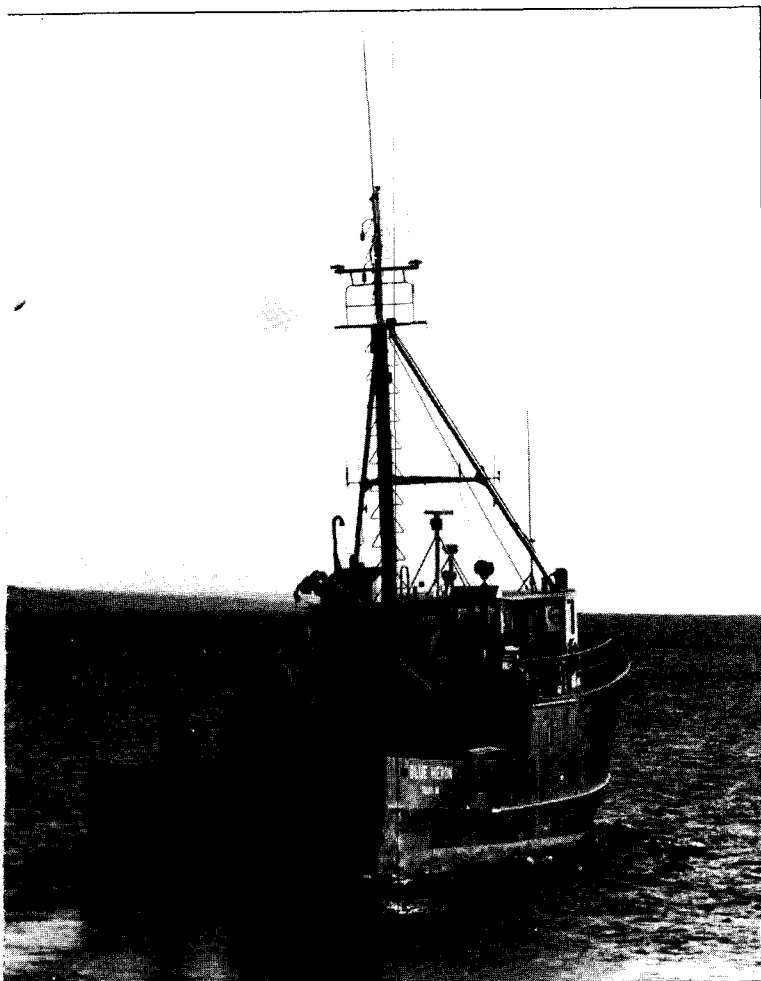


photo: Ken Moran, UMD U. Relations

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 4

October 1998

Editor: Phil Norcross

Editorial Assistant: Tove Jespersen

Interim Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Phil Norcross, 612/625-2354, phil@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr + 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr + 8.7%
Summer quarter TA, RA, AF	— 8.7%
Summer session TA, with tuition	\$12.44/hr + 8.7%
Summer session TA, without tuition	— 8.7%
Professional program assistant	— 8.7%
Dental fellow *	\$4.30/hr —
Medical fellow *	\$3.30/hr —

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612/624-2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Phil Norcross, editor, 612/625-2354, phil@ortta.umn.edu.

New Network and Desktop Standards Set for Optimizing Use Of PeopleSoft™, EGMS and Financial FormsNirvana.

The Enterprise System Project (of which the Grants Management Project is a part) provides end-users with desktop electronic tools designed to make their work easier and more productive: the PeopleSoft™ implementation of Student 2000 and the Human Resources Management System (HRMS); and for grants management Financial FormsNirvana (FFN) and the Electronic Grants Management System (EGMS). In order for these tools to be used optimally, however, it is necessary to have appropriate technology in place from the server to the desktop that will meet performance requirements of the systems.

Over the past summer some of the electronic tools used in grants management experienced a significant slow-down in performance. There were a number of causes for this, including increasing demands on the system by the addition of many new users, server-side software that needed to be optimized, and a needed performance upgrade of the server itself. Two major problems, however, were inadequate networking architecture at the local level and old computers on the desktop.

Recently, the Office of Information Technology has defined standards for networking for all of the participants in the Enterprise System Project (these can be found at <http://www1.umn.edu/oit/>). The University has over 200 local area networks, many of which do not meet these standards and will need to be upgraded in order for the system to work.

Equally important, however, is the need to have modern, properly configured computers on the desktop. FFN and EGMS were designed as web-based applications and as a result can be used with any platform (Pentium PC, Macintosh, Unix) and with any computer that has a web browser installed. However, there are standards that need to be met. See <http://www1.umn.edu/oit/itstds/document/desktop/DeskCf.htm>.

The minimum configuration is a machine with 16 MB or more of RAM (on machines running Windows 95, 32 MB of RAM is recommended), at least a 133 MHz processor, and a hard disk with at least 20 MB of available storage (for the web browser). In addition, a web browser will be necessary, as will Adobe Acrobat Reader. The web browser can be either Netscape Navigator or Microsoft

Internet Explorer, but the earliest version that works is version 3.0 in both browsers. Some of the problems we have encountered with users involve old web browsers that cannot take advantage of some of the functionality of the FFN and EGMS programs.

Ideally, of course, you should have the fastest machine available (at present 450 MHz) with as much memory as you can jam into it. The ideal will rarely be met, of course, but the faster the processor and the more memory you have, the better the performance will be. One thing you can do to optimize the performance of your computer is to have the latest version of your web browser installed. Since both Netscape (home.netscape.com) and Internet Explorer (www.microsoft.com) are free downloads, this

standard should not be difficult to meet.

Adobe Acrobat Reader is also free on the web, at either www.adobe.com or locally from training.micro.umn.edu/training/acroread.cfm, as a self-extracting file that is automatically configured with the web browser you have on your machine.

If you have a well-configured

computer, with the latest software on it, and meet the networking standards established by the University, you should have no trouble using the tools that are now available, as well as those that are coming soon.

David W. Hamilton, director, Grants Management Project

Grants Management Project GMP Office Has Relocated

Please Note New Telephone Numbers

As we announced last month, the office for the Grants Management Project, formerly in Jackson Hall, is now located in 429 Johnston Hall.

Telephone numbers have changed. Calls regarding grants management topics may be directed to David Hamilton, Project Director, at 612/625-9057 or 624-6606, dwh@umn.edu; or to Win Ann Schumi, Project Manager, 612/625-6358, wschumi@umn.edu.

The office is staffed full time by Jennifer Maybery. She may be reached at 612/625-9057, maybery@umn.edu.

Blue Heron

(continued from page 1)

interaction among organizations devoted to fresh water: At UMD, that chiefly means the Large Lake Observatory, the Center for Water and the Environment, Minnesota Sea Grant, and parts of the College of Science and Engineering; outside the University, the Great Lakes Aquarium, the U.S. Environmental Protection Agency, and K-12 schools.

Win Grants by Explaining the Problem You will Help Solve

Most important part of a grant proposal describes the gap between what is and what could be, says Jeremy Miner in master's thesis

"Miner's research validates what we've been teaching," says Mikelonis, scholar of grant writing

The U.S. Department of Education, like a lot of other funding agencies, assigns a maximum point value to each section of a grant proposal. Reviewers can give your description of research methods a maximum of 30 points out of 100, for example; the investigators' qualifications, maybe 10 points, max.

But a sample of education proposals, both winners and losers, turned up a surprising and valuable tip to working the system—those point values don't tell you what really matters in a grant proposal.

In the course of his master's research, completed this summer, Jeremy Miner of the Department of Rhetoric found "no distinct relation between the point values assigned and a section's affect on success."

Among four successful proposals that Miner studied, the application guidelines assigned the "statement of the problem" values of 10, 15, 30, and 30 points; among four rejected proposals, that same section was assigned 10, 20, 20, and 30 points.

But no matter how the points were assigned, Miner discovered, the statement of the problem was the single most important feature to funding success. In other words, describing the problem a project will address does more to help a proposal succeed than the funding agency says it will.

The message to proposal writers is clear, says Miner: "No matter how many points the Department of Education assigns, write a strong 'Statement of the Problem,' expressing a gap between *what is* and *what could be*."

By undergraduate training, Miner is a mathematician. His thesis, "A Rhetorical Model for Proposal Writing," is mathematically sophisticated in some respects.

Miner's chief method of analysis was a survey instrument by which he and two other reviewers examined sample proposals for 63 individual variables that might influence a proposal's success. Statistical analysis of their data led to the conclusion regarding the importance of problem statements.

"The statement of the problem is consistently identified as the most important feature that contributes to award funding. The correlation between a clear statement of the problem and funding success has a Pearson r score of 0.9623, a p -value of 0.000," Miner told his thesis committee during oral defense. Those r and p values, he explained, mean the odds of getting same result by chance or accident are less than 1 in 1,000.

"Equally important," says Miner, "the quantitative results were verified and corroborated by qualitative analysis."

{next page}

In Proposal-Writing Seminar Students' Work Gets Funded

Victoria Mikelonis measures the success of her grant-writing seminar by the success of her students' proposals: About a third of the students have their proposals funded within a year, she says.

It is a hands-on, practical seminar: Work sheets lead students step-by-step through defining problems, identifying funding prospects, and writing the various parts of a proposal—sometimes writing them over and over till they work.

Students' projects range from isolating a virus that causes swine to abort, to transporting medical supplies in Bolivia, to creating a battered women's shelter for Southeast Asians at the University's clinic in South Minneapolis.

Mikelonis and Signe Betsinger created the proposal-writing seminar in 1984. For several years in the early '90s, Mikelonis took the course to East

European nonprofit organizations, as part of an economic development program run by the U.S. Agency for International Development.

The European students achieved astounding success. In Romania, 14 of 17 students got funded. They won \$705,000 in 5 months, \$3 million in two years, Mikelonis reports.

Now Mikelonis teaches grant-proposal writing at least once a year, either on the East Bank as "Public Affairs 5905" or in St. Paul as "Rhetoric 5573." The course is next scheduled for Spring 1999 in St. Paul.

Mikelonis is a professor in the Department of Rhetoric, an adjunct faculty member in the Humphrey Institute, and director of University College's bachelor of applied business program.

On the other hand, Miner worked with a subject population of just eight members, a “convenience sample” of eight proposals—four winners, four losers—that addressed problems in special education, disabilities, and rehabilitation and were submitted to the U.S.D.Ed. from 1992 through 1997.

Miner entered the grant-writing game while an undergraduate student at Marquette University in Milwaukee. His proposal for “Operation Vango” won \$40,000 for transporting students from the campus to downtown volunteer jobs.

Here at UM, Miner studied grant writing under the direction of Victoria Mikelonis, who has long taught grant writing through the Department of Rhetoric and the Humphrey Institute. (See sidebar, page 4.)

“I wanted formulas,” Miner said during his defense last July. “But audience analysis told me that grant writing is not formulaic, no matter how much it may seem so.” For that reason, Miner seems disappointed in most of the books that teach grant writing—he counted 60 published over the past 10 years. They are too-simple “how-to’s” he says, cookbooks that lack theoretical understanding and show little respect for the art of persuasion.

Miner found his mentor in Richard C. Freed and his *Writing Winning Business Proposals: Your Guide to Landing the Client, Making the Sale, Persuading the Boss* (McGraw-Hill, 1995). In addition to describing parts of proposals and how to assemble them, Miner found Freed discussing “proposal psychology and emotional concerns.”

“Writers tend to forget that reviewers are people,” as Miner put it. “They read proposals under pressure, under the same conditions we grade student papers.”

Freed names 17 variables that influence the success of proposals. Miner subdivided the 17 into 63. Then Miner and two other readers, one a research administrator with 25 years experience, one a Ph.D. candidate, ranked the presence of those variables in the sample proposals. Their results were consistent, says Miner. “All three sets of eyes saw the same thing.”

What did they see?

- The “statement of the problem” was the single most important contributor to funding success. Even when the agency has already defined the problem, you need to do it again in more specific terms. And even when the official forms label the problem statement “section G,” it might be wise to summarize the problem much earlier than that.

- It is also wise to work hard at describing a project’s benefits—make clear what will be different when the work ends.
- Write a *coherent* argument; one with logical connections from one part to another.
- Develop specific *themes* throughout a proposal. The “themes,” Miner said, are the sponsor’s “hot buttons,” the essential messages that should recur in each section of a proposal.
- Arrange each section of a proposal in a pattern that proceeds from persuasion, to information, and back to persuasion. In a “methods” section, for example, don’t just say “I’ll do this, this, and that.” Start and finish by explaining *why* “this, this, and that” are the right things to do.

In the end, Miner and Mikelonis are pleased, but not surprised, by these results. This analysis amounts, they say, to quantitative confirmation of what they already knew by intuition and anecdote.

by Phil Norcross

Letter to the Editor

I am writing to comment on the small excerpt that you chose to run of an article by Theodore Cross concerning the number of African-American faculty in high-ranking academic institutions. Apparently his argument is that there are lots of African-Americans currently employed in lower-ranking academic institutions and hence,

“It is almost statistically impossible that there do not now exist many dozens of African-American scholars qualified to move into tenured positions at the most prominent universities in America.”

This statement is clearly nonsense from a statistical point-of-view. There are thousands of minor league baseball players in this country. Are we to conclude that many dozens of them can now play in the Major Leagues? Perhaps Mr. Cross has a more detailed statistical model on the distribution of talent that leads him to these conclusions, although frankly I don’t believe it. But the excerpt that you chose to publish is little else than propaganda. I can not understand how you can justify wasting the space in what is supposed be a service publication for researchers with what amounts to a political diatribe. If you wish to editorialize, do so in a proper forum.

Paul H. Edelman
Professor of Mathematics

Year 2000 Discussion Seminars

for Faculty, Research Personnel, and
Technical Coordinators

These seminars will provide valuable tools and resources,
as well as the opportunity to compare notes with people
facing year-2000 problems.

Wednesday, October 14

8:00 A.M. to 10:00 A.M.

Minnesota Commons Room

St. Paul Student Center

Thursday, October 29

8:00 A.M. to 10:00 A.M.

Mayo Auditorium, Mayo Building

Tuesday, November 10

8:00 A.M. to 10:00 A.M.

Room 25, Law Building

Wednesday, December 2

8:00 A.M. to 10:00 A.M.

Mississippi Room

320 Coffman Memorial Union

To sign up, check out the Year 2000 web site at
www.umn.edu/oit/year2000.

Presented by the UM Office of Information Technology

Year 2000
1996 1997 1998 Project

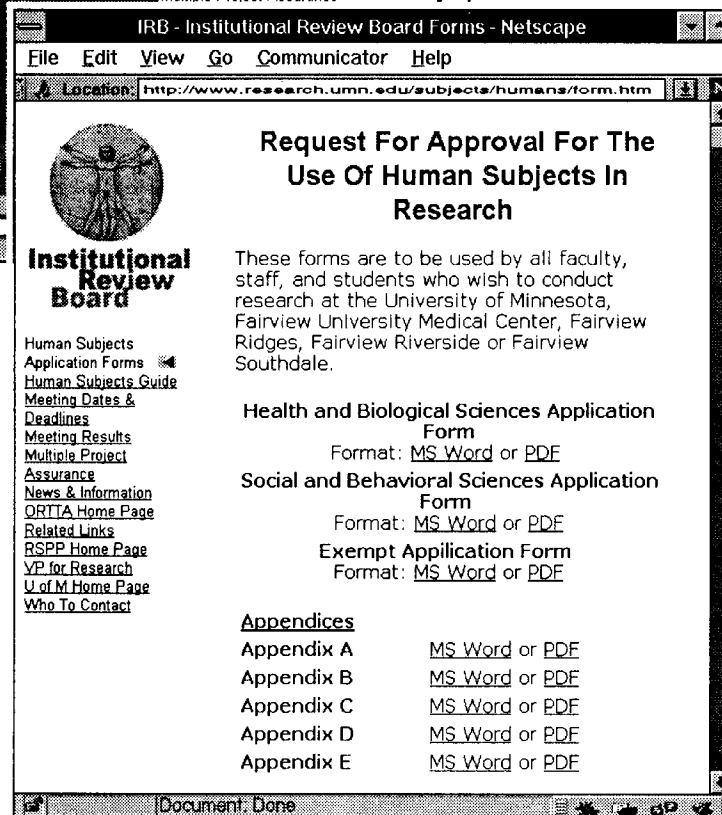
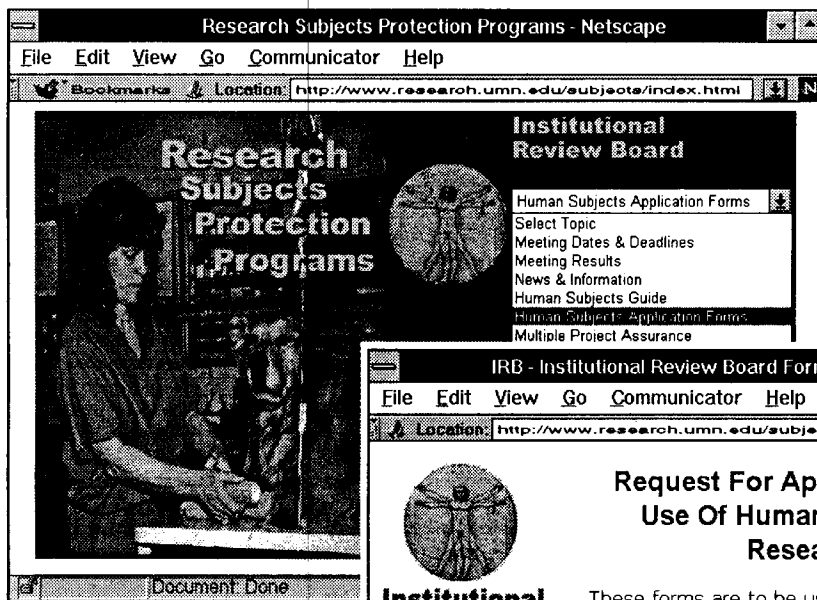
What's New in Grants Management

an index to changes and announcements

October 1998

(month 4 of UM fiscal 1999)

This month there are no changes or announcements regarding grants management.



Research Subjects' Protection Programs Applications to use Human or Animal Subjects are on the Web

Great news for those researchers who had to scramble to find a typewriter, and then try to remember (or learn) how to use it!

Research Subjects' Protection has put its forms on the web.

To find the forms for requesting approval to use human or animal subjects, go to RSPP's home page and use the drop-down menus to call up "Human Subjects Application Forms" or "Animal Usage Forms."

The forms are available in both MS Word and PDF formats.

And please remember:

If you are filling out the full social or medical form, please fill out all of the necessary appendices.

For research that qualifies for expedited review, submit three copies of your application to RSPP; for full committee review, submit 12 copies.

Thanks, and good luck!

P.S. We consider the forms a "work in progress," so your feedback on clarity, or other suggestions, are welcome.

Michelle Dawson, RSPP

NSF

NSF Grant Conditions Changed October 1

The NSF made some changes to its "Grant General Conditions" (the "GC-1") that took effect on October 1, the start of federal fiscal year 1999. The changes apply to new grants and to funding amendments for existing grants. The complete text of the new GC-1 is at www.nsf.gov/cgi-bin/getpub?nsf98gc1a.

Some NSF directorates *require* that awardees submit requests and notifications electronically, via NSF's FastLane system.

Annual and final project reports by awardees must follow a new format.

Awardees are responsible to avoid year 2000 problems in their NSF-funded work.

The maximum daily fee for consultants is \$453.

Notification & Request

NSF advise awardees to consult its FastLane web site—www.fastlane.nsf.gov—in order to learn which NSF directorates require awardees to send notifications and requests electronically.

Annual & Final Reports

The format for awardees' annual and final reports to NSF has been revised in order to more explicitly solicit details about awardees' accomplishments. Where NSF used to ask about project participants, for example, it now asks about individuals, organizations, and other collaborators. NSF seeks description of awardees' contributions to their disciplines, to student education, and to the public welfare.

The new report format is driven by the 1993 Government Performance and Results Act, which require agencies to report results, and by Congress's new determination to consider those results when it writes budgets.

Awardees are strongly encouraged to use the electronic report on the FastLane system, but paper reports are still acceptable. For paper forms, write to the NSF Clearinghouse, P.O. box 218, Jessup, MD 20794-0218; 301/947-2722; pubs@nsf.gov.

The Year 2000 Problem

NSF awardees are to "take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem," says the revised GC-1, and if the year 2000 will have a significant impact on an awardee's work, the awardee should notify NSF.

Consulting Fees

NSF grants can pay individual consultants a maximum of \$453 per day, a rate tied to the federal salary schedule. That rate does not include indirect costs, travel, per diem, clerical services, fringe benefits, or supplies.

NSF Plans to Convert All its Business to the Electronic FastLane

No More Paper After October 2000

NSF intends its Internet-based FastLane system to "provide a quick, secure, paperless record and transaction mechanism for all NSF awards, from program announcement to award closeout, by October 2000."

The system will allow NSF to respond more quickly and accurately to awardees, it says, and it will help awardees better manage their NSF business.

During the transition to FastLane, NSF will continue to conduct paper transactions.

NSF will begin to *require* grantees to use FastLane for various kinds of business according to the following schedule:

Annual and final project reporting	October 1999
Postaward notifications and requests	January 2000
Business transactions, payment, and financial reporting	October 2000
Submission of peer reviews	October 2000
Proposal preparation and submission	October 2000

To use NSF's FastLane system, you need a personal identification number (PIN).

To get your FastLane PIN, call Kim Makowske at SPA, 612/624-9004, kim@ortta.umn.edu.

Todd Morrison is Leaving SPA

Todd Morrison, assistant director of Sponsored Projects Administration with responsibility for work with NSF and most nonfederal sponsors, leaves the SPA and the University October 13. Morrison has been at ORTTA some 20 years. He is joining Metro Transit as manager of grant programs.

SPA Question and Answer

Is it a Gift or a Sponsored Project?

Question: I'm considering participating as principal investigator on a clinical trial which will be funded by an external source. Can the funds be accepted as a gift, or must this be treated as a sponsored project?

Answer: Because the agreement which establishes the funding arrangements also establishes boundaries and expectations for performance and reporting of outcomes, clinical trial agreements are treated as sponsored projects. Gifts must be unrestricted in terms of workscope, accountability, liability, ownership of information, and publications.

Many clinical trial agreements contain contractual language which is unacceptable to the principal investigator (because of academic concerns), or to the University (because of academic, legal, or policy concerns). Neither the University Foundation nor the Minnesota Medical Foundation, which accept and administer gifts to the University, are equipped to identify and negotiate these issues. Sponsored Projects Administration (SPA) personnel are trained and experienced in negotiating such agreements to find the best balance between the sponsor's terms and the University's and PI's interests.

Both SPA and the Research Services Organization (RSO) can assist researchers with their industry-sponsored projects. The RSO can assist with the identification of costs, preparation of study budgets, internal and external regulatory documents (IRB application, FDA Form 1571, Proposal Routing Form (BA23)), and identification of problematic items in research agreements and protocols. SPA will negotiate contract terms and execute the contracts on behalf of the Board of Regents.

U.S. Department of Energy

Extensions of Expiration Dates

The U.S. Department of Energy (DOE) has clarified its provision on awarding no-cost extensions to DOE projects.

Grant awardees may extend the expiration date of the final budget period of a project if additional time beyond the established expiration date is needed to assure adequate completion of the original scope of the work *with the funds already made available*. In other words, if a grant or cooperative agreement will not be renewed, the recipient may unilaterally extend the award to complete work with no increase in funding. This provision, however, *does not* allow recipients to extend the expiration date of a budget period if the award is going to be renewed.

A single extension, not to exceed 12 months, may be exercised by an authorized individual within the recipient's organization [the PI in conjunction with his/her SPA grant administrator]. The extension must be made *prior* to the originally established expiration date and the recipient must notify the cognizant DOE contracting officer in writing *within 10 days* of making the extension. If there is any question as to whether an award will or will not be renewed, the DOE project officer or contract specialist identified in blocks 11 and 12, respectively, of the notice of financial assistance award, should be contacted.

If you have questions, contact an SPA grant administrator or call Patricia J. Schuneman, Department of Energy, Chicago Operations Office, 630/252-2956.

Maximum for CSREES Special Grants is Now 3 Years, Not 5

The maximum length of its "Special Grants" has decreased from five years to three years, says the USDA's Cooperative State Research, Education, and Extension Service. Congress made the change earlier this year. It took effect June 23.

Special grants are identified as such in block 16 of the S&E-451, "Agreement Face Sheet." They include the following programs:

- Critical Issues,
- Food Safety Initiative,
- Integrated Pest Management research,
- National Agricultural Pesticide Impact Assessment research,
- Pest Management Alternatives,
- Potato Research,
- Rural Development Centers research,
- Water Quality research,
- Wood Utilization,
- Congressional earmarks,
- and others.

For special grants awarded prior to June 23, the grantee institution can approve one no-cost extension for 12 months, so long as the total grant-period does not exceed 5 years. A second extension is not allowed, and any special grants now operating in their first extension must obligate their remaining funds by the current expiration date.

For more information, call Denise Polk, Chief, Grants Management Branch, 202/401-5050. For Pesticide Impact Assessment and Integrated Pest Management projects, call Vera Smith, Chief, Agreements and Special Projects Branch, 202/401-4326.

Sponsored Project Administration

Proposal and Award Activity - Fiscal Year 1998

The table below shows the distribution of proposals submitted and awards received during FY 1998 among University colleges. One word of caution: proposals submitted during one fiscal year are generally not awarded

until the next year. Comparing the level of proposals submitted in one year to awards received in the same year is not appropriate.

University of Minnesota				
Proposal and Award Activity Fiscal Year 1998				
By College				
<u>College</u>	<u>Proposals Submitted</u>		<u>Awards Received</u>	
	<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>
Medical School	1,203	\$ 224,026,241	987	\$ 129,924,418
School of Dentistry	51	9,630,097	48	5,630,737
College of Pharmacy	34	3,310,908	29	3,173,279
School of Nursing	31	5,844,234	22	3,393,660
School of Public Health	234	99,919,480	196	43,213,235
College of Veterinary Medicine	152	21,443,225	76	6,793,713
UMD School of Medicine	47	10,195,446	39	2,718,886
Academic Health Center shared	53	8,296,830	32	4,167,062
Health Sciences Administration	7	552,706	—	—
<i>Total Health Sciences</i>	1,812	\$ 383,219,167	1,429	\$ 199,014,990
Institute of Technology	711	\$ 204,721,392	583	\$ 63,181,504
College of Agricultural, Food, and Environmental Sciences	322	46,988,131	173	11,070,666
College of Architecture & Landscape Architecture	18	3,904,382	12	503,443
College of Biological Sciences	210	47,412,346	116	11,568,422
College of Education & Human Development	172	26,147,336	113	16,681,008
College of Human Ecology	79	13,461,245	28	4,466,450
College of Liberal Arts	108	18,454,506	78	10,241,549
College of Natural Resources	142	18,762,582	110	4,693,999
Carlson School of Management	23	4,141,874	11	639,553
HHH Institute of Public Affairs	31	8,360,249	20	3,110,149
Law School	3	88,786	1	31,436
General College	19	2,036,421	8	959,806
Agricultural Experiment Station	18	1,081,279	18	738,468
University of Minnesota Extension Service	16	6,137,388	10	1,312,221
University College	16	638,928	6	200,515
Other	6	1,375,153	—	—
<i>Total Twin Cities Provost</i>	1,894	\$ 403,711,998	1,287	\$ 129,399,189
VP for Research	75	\$ 12,660,086	53	\$ 8,991,031
UM Duluth	203	18,926,447	141	10,647,792
UM Morris	33	693,312	17	198,088
UM Crookston	12	1,175,330	8	488,484
Other Units	32	4,152,590	18	1,317,461
<i>Grand Total</i>	4,061	\$ 824,538,930	2,953	\$ 350,057,035

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

Houe, P. Døden i Amerika: Dorrit Willumsens Bang. In *Alt skal med*. P. Olsen, M. Salomonsen, eds. Horsens: MS—film og tekst, 1998, pp. 19-27.

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

■ U.S. Department of Agriculture National Research Initiative

The U.S. Department of Agriculture is inviting proposals under the National Research Initiative in agriculture, forestry, and related environmental sciences. Awards will include conventional projects (standard research grants, conferences); and agricultural research enhancement awards (postdoctoral fellowships, new investigator awards, strengthening awards).

Awards will be made in three areas:

1. Plant responses to the environment, ecosystem science, soils and soil biology, water resources assessment and protection, improving human nutrition for optimal health, weed biology and management. Due date is **November 15, 1998**.
2. Plant genome, plant genetic mechanisms, plant growth/development, photosynthesis and respiration, markets and trade, rural development, food and non-food characterization/process/product research. Due date is **December 15, 1998**.
3. Food safety, animal reproductivity efficiency, animal health and well-being, plant pathology, entomology and nematology, biologically based pest management, improved use of wood and wood fiber. Due date is **January 15, 1999**.

It is anticipated that \$16.3 million will be awarded for natural resources and environment; \$7.4 million for nutrition, food quality and health; \$34.4 million for plant systems; \$22.4 million for animal systems; \$3.6 million for markets, trade, and policy; and \$6.3 million for new products and processes.

For further information contact USDA 202/401-5022, nricgp@reeusda.gov, <http://www.reeusda.gov/nri>.

■ National Institutes of Health New Direction in Pain Research: I PA-98-102

Numerous institutes within the National Institutes of Health are coming together to sponsor New Directions in Pain Research: I. Investigator-initiated research proposals are requested to study mechanisms underlying analgesic response and pain to advance the development of novel pain interventions, treatments, and management strategies. Applications are particularly encouraged to study pain throughout the lifespan from the perspectives of molecular genetics, transcriptional controls, signal transduction, including cellular/molecular mechanisms, innovative imaging technologies, plasticity, and hormonal or gender influence.

The pain experience needs to be examined at all levels of analysis from the gene, molecule, cell, tissue, and organ, to the individual, family and community, with the ultimate goal of developing new insights into pain intervention, treatment, and management.

The mechanism of support will be the research project grant (R01).

This is an ongoing program with annual deadlines of **February 1, June 1, and October 1**. A copy of the announcement may be found at <http://www.nih.gov/grants/guide/pa-files/PA-98-102.html>.

■ Morris Animal Foundation

The Morris Animal Foundation will consider pre-proposals in the following areas:

- canine
- feline
- lama
- equine
- wildlife/special species
- avian
- pilot studies
- emerging conditions
- management of pain

The application deadline is **November 1, 1998**. Information on programs and on preparation of the pre-proposals is available at <http://www.MorrisAnimalFoundation.org>. For other information contact Kristin Benjamin, Grants Manager, Morris Animal Foundation, 45 Inverness Drive East, Englewood, CO 80112-5480; 303/790-2345.

■ United States Information Agency College and University Affiliations Program

The United States Information Agency, Bureau of Educational and Cultural Affairs, announces an open competition. Post-secondary educational institutions may apply to pursue objectives on the rule of law, journalism and media studies, or civic education in partnership with overseas institutions of higher education with the general goal of assisting with the development of a foundation for international trust.

Partner institutions may pursue these goals through exchanges of teachers or administrators for any appropriate combination of teaching, lecturing, college or university teacher and curriculum development, collaborative research, and outreach, for periods ranging from one week (for planning visits) to an academic year. Also being supported is the establishment and maintenance of Internet and/or e-mail communication facilities as well as interactive distance-learning programs at foreign partner institutions.

One-way projects that provide technical assistance from one institution to another are *strongly discouraged*. Substantial project benefits must accrue to all partner institutions, although the benefits may differ significantly for each institution.

The program awards up to \$120,000 for a three-year period to defray the costs of travel and per diem, educational materials, and some aspects of project administration.

The proposal deadline is **December 11, 1998**. For further information contact the Office of Academic Programs, Advising, Teaching, and Specialized Programs Division, College and University Affiliations Program (CUAP), (E/ASU), Room 349, U.S. Information Agency, 301 4th Street SW, Washington, DC 20547; 202/619-5289; fax 202/401-1433, affiliat@usia.gov. The entire solicitation package may be downloaded from <http://www.usia.gov/education/rfps>.

■ Radcliffe College Mary Ingraham Bunting Institute

The Mary Ingraham Bunting Institute is a multidisciplinary research center for women scholars, scientists, artists, and writers. Its fellowships programs are designed to support women of exceptional promise and demonstrated accomplishment who wish to pursue independent work in academic and professional fields and in the creative arts.

Office or studio space, auditing privileges, and access to libraries and most other resources of Radcliffe College and Harvard University are provided. Residence in the Boston area and participation in the institute community are required during the fellowship year. Fellows are expected to present their work-in-progress at a public colloquium, performance or exhibition, and to take part in the institute community by attending other fellows' weekly colloquia.

Peace Fellowship. Eligible applicants are women who have demonstrated practical effectiveness in work directly related to peace and justice: international relations, human rights, peace negotiations, and conflict resolution in national and international contexts, and whose project has potential for significant contributions in such areas. \$32,000 stipend. One award will be made. Deadline is **January 15, 1999**.

Marion Cabot Putnam Fellowship. Eligible applicants are professional women in the field of infant and child development, conducting research within the framework of, or contributing to, psychoanalysis. \$36,000 stipend. One award will be made. Deadline is **January 15, 1999**.

Berkshire Summer Fellowship. Eligible applicants are women historians at the postdoctoral level working in any field of history. Preference given to junior scholars and those who do not normally have access to Boston-area resources. \$3,500 stipend for the summer of 1999. One award will be made. Deadline is **January 15, 1999**.

Write or call for an application to Bunting Institute, 34 Concord Avenue, Cambridge, MA 02138; 617/495-8212; bunting_fellowships@radcliffe.harvard.edu.

■ NSF-STTR

Nanotechnology and Sensors for Harsh Environments

Note New Deadline—*December!*

NSF, as a part of the Small Business Technology Transfer Program, invites proposals from small businesses for feasibility studies of nano-scale sensors for harsh environments—high temperatures, for example. Proposals must come from small businesses with plans to collaborate with a nonprofit research organization, such as the University.

Proposals are due **December 14, 1998**. For information, see last month's *Research Review* or Minnesota Project Innovation, www.mpi.org.

■ National Science Foundation Professional Opportunities for Women in Research and Education NSF 98-160

The Professional Opportunities for Women in Research and Education (POWRE) program supports activities that promote the development of scholarly and institutional leaders in research and education. It is a foundation-wide program designed to increase the prominence of women in science and engineering and to enhance their professional advancement by providing them with funding opportunities that are not ordinarily available through regular research and education grant programs. POWRE awards are not intended to substitute for support of regular research and education projects, or for other NSF funding.

POWRE awards are designed to provide a one-time input of funds at a critical stage in the PI's career, a means by which she can take advantage of an identifiable advance in her career path. Awards are expected to be from 12 to 18 months in duration. The total award amount requested, including direct and indirect costs, is expected to be no more than \$75,000.

The application deadline is **December 9, 1998**. A complete copy of the announcement may be found at <http://www.nsf.gov/pubs/cgi-bin/getpub?nsf98160>.

■ National Science Foundation Postdoctoral Fellowships

On behalf of the North Atlantic Treaty Organization (NATO), the National Science Foundation is inviting applications for postdoctoral fellowships. The program funds work in NSF-supported fields, including math; engineering; computer and information science; geosciences; the physical, biological, social, and behavioral and economic sciences; the history and philosophy of science; and interdisciplinary areas spanning two or more of the above. Research in the teaching and learning of science, math, technology, and engineering is also eligible for support.

Fellowships include a stipend of \$2,750 a month for one year, plus \$200 a month for a dependent spouse and up to two dependent children. The award includes travel expenses for the fellow and dependents, and an institutional allowance. 20 fellowships for research abroad will be awarded, and 20 awards will be made to U.S. institutions to host visiting scientists from NATO partner countries.

Eligible applicants for fellowships must be U.S. citizens, nationals, or permanent residents as of November 16,

1998, who have achieved a Ph.D. or equivalent degree on or after October 1, 1994, but no later than October 1, 1999, and who wish to conduct scientific research at appropriate government and nonprofit scientific institutions located in NATO-member or NATO-partner countries other than the U.S. Applicants may not have previously held a fellowship under this program.

For visiting scientist fellowships, applications must be submitted through U.S. academic institutions. Applicants must identify a host sponsor (PI); be citizens of a NATO-partner country; and have achieved a Ph.D. or equivalent degree on or after October 1, 1994, but no later than October 1, 1999.

The application deadline is **November 16, 1998**. For further information call NSF at 703/306-1696, nsf-nato@nsf.gov, <http://www.nsf.gov/cgi-bin/getpub?nsf98149>.

■ National Science Foundation Graduate Research Fellowships

The National Science Foundation is inviting applications for graduate fellowships in NSF-supported fields of science, math, and engineering, including awards offered to women.

Eligible applicants are U.S. citizens, nationals, or permanent residents who, by the start of the fall 1998 term, have completed no more than 20 semester hours, 30 quarter hours or equivalent, of graduate study in science, math, and engineering since completing a science or engineering baccalaureate degree.

The fellowship stipend for 1999-2000 is \$15,000 for a year-long tenure, prorated monthly at \$1,250 for shorter periods. NSF also provides the fellowship institution, on behalf of each fellow, a cost-of-education allowance of \$10,500 per tenure year. During tenure, fellows are exempt from paying tuition and fees normally charged to students of similar academic standing, unless such charges are optional or refundable. At international institutions, NSF will reimburse students for tuition and related fees, up to \$10,500 a year. The maximum tenure period is three years, usable over a five-year period. Tenure must be completed before the beginning of the fall 2004 term.

The application deadline is **November 5, 1998**. For further information contact the NSF Graduate Research Fellowship Program, Oak Ridge Associated Universities, PO Box 3010, Oak Ridge, TN 37831-3010; 423/241-4300; fax 423/241-4513, nsfgrfp@ou.edu, <http://www.nsf.gov/cgi-bin/getpub?nsf98143>.

■ McKnight Foundation McKnight Scholar Awards

The McKnight Scholar Awards are made to stimulate research in neuroscience especially as it pertains to memory and, ultimately, to a clearer understanding of diseases affecting memory. This mandate is interpreted broadly to include many relevant areas of neuroscience.

Eligible applicants must have:

- An M.D. and/or Ph.D.; formal postdoctoral training complete.
- A record of meritorious research in areas pertinent to the award.
- One to four years of experience toward establishing independent laboratory and research careers.
- A U.S. citizenship or lawful permanent resident status.
- A U.S.-based sponsoring institution.

Applicants may not:

- Be employees of the Howard Hughes Medical Institute or scientists within the intramural program of NIH.
- Apply in more than two rounds of competition.
- Apply for continued postdoctoral support.
- Hold tenured positions or their equivalents.

Each scholar will receive \$50,000 annually for three years of support. There are no indirect costs.

The application deadline is **January 4, 1999**. To request application forms and guidelines, e-mail, call, or write the office of the McKnight Endowment Fund for Neuroscience, 600 TCF Tower, 121 South Eighth Street, Minneapolis, MN 55402; 612/333-4220, info@mckfdn.org.

■ Chemical Heritage Foundation Ullyot Scholarship

The fourth annual Ullyot Scholarship will be awarded for the summer of 1999. The scholarship offers a stipend of \$3,500, plus modest travel and research support, to spend a minimum of two months in residence at the Chemical Heritage Foundation (CHF) in Philadelphia, using the resources of CHF's Othmer Library of Chemical History, other area libraries, and associated resources. The goal of the scholarship is to advance public understanding of the importance of the chemical sciences to the public welfare.

Applications should include a curriculum vitae, a one-page description of the proposed research, and an outline of a specific product as an outcome of the scholarship.

The proposal should demonstrate how the resources of the Othmer Library are relevant to the applicant's project. In addition, applicants should arrange for two letters of reference to be sent directly to CHF.

The application deadline is **February 15, 1999**. For further information contact Leo Slater, Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106-2702; 215/925-2222, ext. 224, fax 215/925-1954, lslater@chemheritage.org. For additional information on the Chemical Heritage Foundation, see <http://www.chemheritage.org>.

■ American Antiquarian Society

The American Antiquarian Society (AAS) announces visiting academic research fellowships tenable for one to twelve months during the period June 1, 1999, to May 31, 2000. All awards are for research and writing using the AAS library's resources. These preeminent collections offer broad research opportunities in American history and culture through the year 1876.

The National Endowment for the Humanities and the Andrew W. Mellon Foundation fund long-term awards intended for scholars beyond the doctorate, for which senior and mid-career scholars are particularly encouraged to apply. Short-term fellowships are available for scholars holding the Ph.D. and for doctoral candidates engaged in dissertation research. Special short-term grants support scholars working in the history of the book in American culture, in the American eighteenth century, in American literary studies, and on or with newspapers and magazines. A single short-term fellowship application may be made by those who wish to use the collections of both AAS and the New Library in Chicago.

Fellowship applications are due **January 15, 1999**. Packets providing full details about the fellowships, including certain restrictions that apply for some categories, must be requested before application is made. Inquiries and requests for application materials may be directed to the American Antiquarian Society, 185 Salisbury Street, Worcester, MA 01609-1634; 508/755-5221, fax 508/754-9069, cfs@mwa.org. Information may also be found at gopher://mark.mwa.org.

NOTE: A 1998-1999 AAS-NEA long-term fellow was UM's Jean M. O'Brien-Kehoe, professor, History, for research on Native American people in early New England.

■ Environmental Protection Agency Graduate Fellowships

The Environmental Protection Agency is inviting preapplications under the Science to Achieve Results (STAR) program for graduate fellowships in academic disciplines related to environmental management. The fellowships support research in a wide range of disciplines, including civil, environmental or other engineering; chemistry; oceanography; environmental decision making; urban and regional planning; toxicology; ecological risk assessment; molecular biology and genetics; and health risk assessment.

U.S. citizens, nationals, or permanent residents who are pursuing masters' or doctoral degrees in environmentally-related fields are eligible to apply. Students need not be enrolled in or formally accepted to a full-time graduate program at the time of application, but must produce proof of enrollment or acceptance prior to the start of the award. Students who have completed more than two years in a masters program or four years in a doctoral program *may not* apply.

EPA plans to award about 100 new fellowships. Awards are for \$34,000 a year for up to three years for doctoral students and up to two years for masters students. Fellowships include a \$17,000 annual stipend, \$5,000 for authorized expenses, and up to \$12,000 for tuition and fees.

The application deadline for preapplications is **November 10, 1998**. For further information call the National Center for Environmental Research and Quality Assurance hotline, 800/490-9194; <http://es.epa.gov/ncerqa/rfa/99fellow.html>.

■ Environmental Protection Agency Environmental Education Grants FRL-6151-7

The Environmental Protection Agency is soliciting grant proposals from education institutions, environmental and educational public agencies, and not-for-profit organizations to support environmental education projects. The grants provide financial support for projects which design, demonstrate, or disseminate environmental education practices, methods, or techniques. Environmental education is defined as that which:

- increases public awareness and knowledge about environmental issues;
- provides the public with the skills needed to make informed decisions and take responsible actions;

- enhances critical-thinking, problem-solving, and effective decision-making skills; and
- teaches individuals to weigh various sides of an environmental issue to make informed and responsible decisions.

EPA will not fund projects that are solely designed to develop or disseminate environmental information. Such information provides facts or opinions about environmental issues or problems, but may not enhance critical-thinking, problem-solving, or decision-making skills.

\$3 million is available for this grant cycle. 25 percent of the available funds must go to small grants of \$5,000 or less; there is a maximum limit of \$250,000 for a single grant. Matching funds from nonfederal sources are required in the amount of 25 percent.

The application deadline is **November 16, 1998**. Prospective applicants may download this solicitation notice, a list of EPA environmental education contacts, tips for developing successful grant applications, descriptions of past projects funded under this program, and other education resource materials at <http://www.epa.gov/enviroed>. A tutorial for grant applicants is available at <http://www.epa.gov/seahome/grants/src/grant.htm>.

■ Minnesota Technology, Inc. Technology Partnership Fund

The Technology Partnership Fund was established by Minnesota Technology, Inc., to strengthen and stimulate relationships between Minnesota's small to medium-sized technology companies and post-secondary institutions within the state. Its goals are to:

- Increase the access of small and medium technology companies to the resources and expertise at academic centers of research.
- Grow the state economy through the application of technology in the development of new products.
- Retain technology-oriented talent within the state of Minnesota.

Eight to twelve awards will be made; awards of up to \$100,000 in matching funds will be available to Minnesota companies working with academic partners. Applicants must be for-profit companies with a maximum of 250 employees. Funds may be used for salaries, wages, stipends, consultants, student salary and fringe benefits, and all other activities directly associated with and necessary for the successful completion of the project.

{ next page }

Preliminary proposals must be submitted by **November 13, 1998**. Full proposals are due **December 21, 1998**. Please call John Deasey or Michelle Schaben at 800/325-3073 for assistance or to request proposal guidelines. You may also find information at <http://www.mntech.org>. See university-industry partnerships.

In June 1998, Minnesota Technology awarded \$1 million to 12 applicants out of 29. All twelve awardee companies found their academic collaborators at the University of Minnesota. The work includes, for example:

Rapid thermal processing for disk drive heads, by Advanced Research Corp., Minneapolis, and Stephen Campbell, Electrical and Computer Engineering.

A sensor of grain-moisture for use on combines, by AgriChem, Inc., Ham Lake, and Jonathan Chaplin, Biosystems and Agricultural Engineering.

An optical flux monitor for thin film deposition, by Gradient Technology, Navarre, and Chris J. Palmstrom, Chemical Engineering and Materials Science.

A "probiotic" dairy beverage related to kefir, by Helios Nutrition, Ltd., St. Paul, and Joellen Feirtag, Food Science and Nutrition.

A system for electronic commerce by Talent Information Management, Minneapolis, and Wei-Tek Tsai, Computer Science and Engineering.

■ National Science Foundation Engineering Research Centers

The Division of Engineering Education and Centers in NSF's Directorate for Engineering is accepting pre-proposals from academic institutions to establish approximately six Engineering Research Centers (ERC) in FY 2000. ERCs provide the intellectual foundation for industry to collaborate with faculty and students on resolving, generic, long-range challenges producing the knowledge base for steady advances in technology and their speedy transition to the marketplace.

ERCs may be single-university efforts or they may be multi-university efforts. However, whether a proposed ERC comprises one university or a lead university and one or two core partner universities, the ERC is expected to add a limited number of individual faculty from other academic institutions as outreach partners in research.

An ERC begins operation under an cooperative agreement that has a potential duration of ten years. ERCs are expected to be self-sufficient from program support after

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year ten. The first-year level of NSF support may be between \$1.5 and \$2.5 million. In subsequent years, support may grow to between \$2.5 to \$4 million through year six. After year six, NSF support will decline in order to shift the balance of support to industry and other sources.

A notice of intent is due by **November 2, 1998**. A pre-proposal is due **January 14, 1999**, and invited full proposals are due **June 30, 1999**. NSF will conduct site visits from September through November 1999, and awards will be made in March 2000. The announcement, including instructions for preparing the notice of intent and the pre-proposal may be found at <http://www.nsf.gov/cgi-bin/getpub?nsf98146>.

■ National Science Foundation Grant Opportunities for Academic Liaison with Industry

The National Science Foundation announces the Grant Opportunities for Academic Liaison with Industry (GOALI) program. The GOALI initiative aims to synergize university-industry partnerships by making funds available to support a mix of industry-university linkages. Special interest is focused on affording the opportunity for 1) faculty, postdoctoral fellows, and students to conduct research and gain experience with production processes in an industrial setting, 2) industrial scientists and engineers to bring industry's perspective and integrative skills to academe, and 3) interdisciplinary university-industry teams to conduct long-term projects.

Topics addressed in a GOALI award need not focus on fundamental issues only, but should address long-term, generic research within an intellectual envelope shared by the industrial partner. Fundamental research generally is performed in academe in parallel with more applied research in industry. Investigators are expected to integrate research objectives with educational and human resources goals and industry needs.

Persons interested in requesting funds under GOALI should contact a NSF program director in the directorate in their area of interest for guidance on proposal submission. Go to <http://www.nsf.gov/bfa/cpo/gpg> for a list of programs and telephone numbers.

Proposals are due according to the review process established in each disciplinary program. For a list of deadlines and target dates refer to the *NSF Bulletin*, the NSF web site: <http://www.nsf.gov>, or contact the appropriate disciplinary program.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Phil Norcross at ORTTA, phil@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
August 1998	295	\$ 45,740,457
Awards Processed		
August 1998	358	35,155,460
Proposals Submitted		
July 1998 - August 1998	580	97,569,458
Awards Processed		
July 1998 - August 1998	707	69,493,323
Proposals Submitted		
July 1997 - August 1997	540	94,122,027
Awards Processed		
July 1997 - August 1997	548	59,066,526

Use of a Transposon for Gene Identification in Zebrafish

Stephen C. Ekker, Biochemistry

Minnesota Medical Foundation
\$14,029 - 8/1/98-7/31/99

Below-the-Lens Field Emission Scanning Electron Microscope for Secondary and Backscatter Electron Imaging of Large Bulk Samples

Stanley L. Erlandsen, Cell Biology and Neuroanatomy

National Science Foundation
\$241,000 - 6/1/98-5/31/00

Molecular Characterization of Herpes Simplex Virus

Stephen Rice, Microbiology

NIH, NIAID
\$217,181 - 7/1/98-6/30/99

Ninth Congress: International Society of Biomedical Research on Alcoholism

W. G. Wood, Pharmacology

NIH, NIAAA
\$56,000 - 6/5/98-2/28/99

Membrane Properties of Retinal Astrocytes: Gap Functions

Kathleen Zahs, Physiology

NIH, NINDS
\$192,689 - 8/1/98-7/31/99

Genetic Optimization of Immunotoxins for Leukemia Therapy

Christopher A. Pennell, Laboratory Medicine and Pathology

Daniel A. Vallera, Therapeutic Radiology

Minnesota Medical Foundation
\$14,000 - 8/1/98-7/31/99

Linezolid in the Treatment of Complicated Skin Infections

L. D. Sabath, Medicine

Frank S. Rhame, Medicine

Pharmacia and Upjohn
\$71,926 - 3/16/98-8/31/99

Functional MRI of HTE Human Motor Cortex

James Ashe, Neurology

Minnesota Medical Foundation
\$14,827 - 4/1/98-3/31/99

Predocutorial Training of Neuroscientists

Timothy Ebner, Neurosurgery

NIH, NIGMS
\$158,551 - 7/1/98-6/30/99

Molecular Genetics of Myopia

Terri L. Young, Ophthalmology

Richard A. King, Medicine

William S. Oetting, Medicine

NIH, NEI
\$130,107 - 8/1/98-7/31/99

T-Cell Targeting for Graft vs. Host Disease (GVHD)

Bruce Blazar, Pediatrics

Daniel A. Vallera, Therapeutic Radiology

Mortari Panoskaltzis, Pediatrics

NIH, NHLBI
\$335,056 - 8/10/98-7/31/99

Natural History of Nephropathy in Type I Diabetes

S. Michael Mauer, Pediatrics

Kim Youngki, Pediatrics

Montreal Children's Hospital
\$277,936 - 11/1/97-10/31/98

Delivery of Mental Health Services for PTSD and Alcoholism to American Indian and Hispanic Veterans in New Mexico and Minnesota

Joseph Westermeyer, Psychiatry

Veterans Administration
\$780,000 - 1996-2000

Study of Heart Function and Perfusion in a Pig Model with Implanted Heart Stent

Michael Jerosch-Herold, Radiology

Heartstent, Inc.
\$43,013 - 5/1/98-12/31/98

Supplemental O₂ and Intimal Hyperplasia in an *in vivo* Model

Eugene S. Lee, Surgery

Steven Santilli, Surgery

NIH, NHLBI
\$32,824 - 6/22/98-7/31/99

Adolescent Health Monograph Series

Robert W. Blum, Public Health

Michael D. Resnick, Health Management and Policy

Robert Wood Johnson Foundation
\$650,000 - 8/1/98-7/31/00

Toxaphene Analyses of Minnesota Fish

Deborah L. Swackhamer, Environmental and Occupational Health

St. of Minn., Department of Natural Resources

\$5,000 - 3/30/98-6/30/98

Community Surveillance of Congestive Heart Failure

Russell V. Luepker, Epidemiology

NIH, NHLBI
\$563,657 - 8/15/98-6/30/99

National Study of the Home Care Assisted Living Connection

Rosalie A. Kane, Health Services Research

Robert Wood Johnson Foundation
\$473,765 - 5/1/98-4/30/01

Early Intervention Family Center Collaboration

Amos S. Deinard, Community University Health Care Center

Terrie Rose, Community University Health Care Center

Minnesota Futures Fund
\$20,000 - 8/1/98-7/31/99

Center for Adolescent Nursing Leadership

Linda Bearinger, Nursing

HRSA, Maternal and Child Health
\$191,089 - 7/1/98-6/30/99**Center for Nursing Education: Children/Special Health Needs**

Barbara J. Leonard, Nursing

HRSA, Maternal and Child Health
\$198,459 - 7/1/98-6/30/99**Interfacial Biomechanics of Early Bone Loss Around Dental Implants**

Ching Cha Ko, Oral Sciences

David Delong, Laboratory Medicine and Pathology

James Q. Swift, Diagnostic Surgical Science

Whitaker Foundation
\$200,472 - 6/1/98-5/31/99**Computational Tools for the Atomic-Continuum Interface: Nanometer to Millimeter Scale Aircraft**

Richard D. James, Aerospace Engineering and Mechanics

USDOD, Air Force
\$627,500 - 6/1/98-12/31/98**Modelling of Hybridoma Cell Growth**

Wei-Shou Hu, Chemical Engineering and Materials Science

National Science Foundation
\$135,939 - 7/1/98-6/30/99**Characterization of Heterogeneous Reactive Catalyst Surfaces**

William H. Smyrl, Chemical Engineering and Materials Science

American Chemical Society, Petroleum Research Fund
\$60,000 - 9/1/98-8/31/00**Synthesis of Antitumor Agents**

Thomas R. Hoye, Chemistry

NIH, NCI
\$288,468 - 8/11/98-6/30/99**Design of Reaction Catalysts Based on Protein Cavities**

Mark D. Distefano, Chemistry

National Science Foundation
\$273,200 - 8/1/98-7/31/01**The Use of Fabrics to Reinforce Unsurfaced Roads**

Andrew Drescher, Civil Engineering

David E. Newcomb, Civil Engineering

St. of Minn., Department of Transportation
\$50,000 - 7/8/98-4/30/00**Effect of Pre-Release Cracks on Prestressed Bridge Girder Performance Including Remaining Fatigue Life**

Catherine E. French, Civil Engineering

Carol K. Shield, Civil Engineering

St. of Minn., Department of Transportation
\$40,501 - 6/29/98-6/30/00**Load Balancing on the Information Power Grid**

Vipin Kumar, Computer Science and Engineering

George Karypis, Computer Science and Engineering

National Aeronautics and Space Administration
\$40,000 - 5/1/98-9/30/98**Integrated CMOS Front End for Global Positioning System (GPS) Receiver**

Ramesh Harjani, Electrical Engineering

Rocket Chips, Inc.
\$60,000 - 7/1/98-6/30/99**Moving Frames and Computer Vision**

Peter Olver, Mathematics

National Science Foundation
\$115,000 - 7/1/98-6/30/01**Regional Hydrologic Simulation Model to Study Aquifer-Atmosphere Interactions on Interannual-Decadal Time Scales**

Mark Person, Geology and Geophysics

John L. Nieber, Biosystems and Agricultural Engineering

National Aeronautics and Space Administration
\$250,000 - 7/1/98-6/30/99**Effect of Water on Fe-Mg Interdiffusion in Mantle Minerals: Implications of Geodynamical Processes**

David Kohlstedt, Geology and Geophysics

National Science Foundation
\$123,886 - 7/15/98-6/30/00**A Fundamental Study of Topological Transitions in Liquid/Liquid Flows**

John Lowengrub, Mathematics

Ellen Longmire, Aerospace Engineering and Mechanics

U.S. Department of Energy
\$150,000 - 5/1/98-12/31/98**Establishment of Cellular and Vascular Mechanism of Cryodestruction**

John C. Bischof, Mechanical Engineering

Kenneth P. Roberts, Urologic Surgery

NIH, NCI
\$93,450 - 7/15/98-6/30/99**Data Analysis from the Radio and Plasma Waves (WAVES) Instrument on the WIND Spacecraft**

Keith Goetz, Physics and Astronomy

Paul J. Kellogg, Physics and Astronomy

National Aeronautics and Space Administration
\$295,000 - 3/1/98-2/28/99**Rare Gas and Nitrogen Studies: Lunar, Meteoritic, Terrestrial**

Robert O. Pepin, Physics and Astronomy

Richard H. Becker, Physics and Astronomy

National Aeronautics and Space Administration
\$128,000 - 3/15/98-3/14/99**Genesis Discovery-5 Mission**

Robert O. Pepin, Physics and Astronomy

National Aeronautics and Space Administration
\$44,000 - 5/6/98-5/5/99**Lipid Binding Proteins in Obesity/Diabetes Syndromes**

David A. Bernlohr, Biochemistry

NIH, NIDDK
\$217,851 - 8/12/98-7/31/99**Monarchs in the Classroom: Student Research**

Karen Oberhauser, Ecology, Evolution, and Behavior

Medtronic Foundation
\$15,186 - 7/1/98-6/30/99**Gopher Multimedia Freeware and Workshops**

Richard Peifer, General Biology

St. of Minn., Department of Children, Families, and Learning
\$300,000 - 11/1/97-6/30/99**Cultural Influences on Relived Emotions**

Jeanne Tsai, Psychology

NIH, NIMH
\$35,397 - 7/15/98-6/30/99**The Adoption and Enforcement of Laws Banning Female Mutilation**

Elizabeth Boyle, Sociology

National Science Foundation
\$50,000 - 9/1/98-8/31/99**Diagnostics for Structured Data and Quality Improvement**

Douglas M. Hawkins, Statistics

National Science Foundation
\$29,248 - 8/15/98-7/31/99

Enhancement of Scab Resistance in Spring Wheat Germplasm by Plant Transformation

Gary J. Muehlbauer, Agronomy and Plant Genetics
U.S. Department of Agriculture
\$34,145 - 8/7/98-8/31/99

Practical Monitoring for *Bacillus thuringiensis* (BT) Resistance

William D. Hutchison, Entomology
Agricultural Utilization Research Institute
\$30,000 - 6/1/98-5/31/00

Phosphorus-Deficiency-Induced Changes in Lupin Gene Expression

Deborah Allan, Soil, Water, and Climate
Carroll P. Vance, Agronomy and Plant Genetics
U.S. Department of Agriculture
\$163,200 - 7/15/98-7/31/01

A Multidisciplinary Evaluation of Precision Farming

George W. Rehm, Soil, Water, and Climate
Minnesota Corn and Research Promotion Council
\$5,000 - 8/10/98-8/1/99

Agricultural Drainage Research and Education

David D. Walgenbach, Northwest Ag Experiment Station, Crookston
Pauline Nickel, Southwest Agricultural Experiment Station, Waseca
Minnesota Corn and Research Promotion Council
\$30,000 - 8/10/98-7/1/99

Home Range and Habitat Use of Breeding Northern Goshawks

David E. Andersen, Fisheries and Wildlife
Patricia Kennedy, Fisheries and Wildlife
Chippewa National Forest
\$39,450 - 4/15/98-4/15/99

Nest Site Selection of Woodpeckers in Midwest Oak Forest

Francesca J. Cuthbert, Fisheries and Wildlife
Collette Adkins Giese, Fisheries and Wildlife
St. of Minn., Department of Natural Resources
\$2,150 - 6/25/98-6/30/99

Minnesota State Park Land Study

Dorothy H. Anderson, Forest Resources
St. of Minn., Department of Natural Resources
\$24,485 - 1/19/98-6/30/99

Integrate the Study of Brain-Behavioral Development

Charles A. Nelson, Child Development
John S. McDonnell Foundation
\$468,880 - 8/1/98-8/1/01

Ontogeny of Implicit Memory: Electrophysiological Evidence

Charles Nelson, Child Development
NIH, NIMH
\$19,482 - 8/1/98-7/31/99

Building Connections

Jean King, Educational Policy and Administration
Robert E. Orton, Curriculum and Instruction
St. of Minn., Department of Children, Families, and Learning
\$400,000 - 4/15/98-6/30/99

Health Sciences Education for the New Millennium

Ellen Nagle, Library
J. Arth, Biomedical Library
Gail Weinberg, Psychology
University of Illinois, Chicago
\$6,000 - 7/1/98-9/30/98

PlanNet Neighborhood Revitalization Programs (NRP) Assembly and Entry Project

William J. Craig, Urban and Regional Affairs
Neighborhood Revitalization Program
\$55,003 - 6/1/98-3/31/99

Preserving the Role of the Traditional B.A. in Welfare Reform

Terence G. Collins, General College
Diane Wartchow, General College
Jean Bauer, Human Ecology
U.S. Department of Education, FIPSE
\$236,821 - 9/15/98-8/15/01

Using the Internet to Learn by Teaching

Rae A. Hoisve, General College
Minnesota Campus Compact
\$2,000 - 10/15/98-6/15/99

Black Seamen and Female Tars: Teaching Ethnic and Gender Diversity on the High Seas

Jill B. Gidmark, General College
Paul Cuffe Memorial Fellowship
\$2,000 - 8/15/98-8/15/99

Modulation of Monocarboxylic Acid Transporters in Brain

Lester R. Drewes, Medicine, Duluth
NIH, NINDS
\$218,677 - 8/1/98-2/28/99

Effect of Natriuretic Peptide Receptor C on Adrenergic Nerve and Arterial Blood Pressure

George J. Trachte, Pharmacology, Duluth
Minnesota Medical Foundation
\$6,700 - 8/1/98-7/31/99

Minnesota Hybrid Poplar Research Program

William Berguson, Natural Resources Research Institute, Duluth
Agricultural Utilization Research Institute
\$306,828 - 7/14/98-6/30/99

In Situ Characterization of Ultraviolet and Visible Light in *Rana pipiens* Habitats

Lucinda Johnson, Natural Resources Research Institute, Duluth
Richard Axler, Natural Resources Research Institute, Duluth
Environmental Protection Agency
\$100,000 - 4/1/98-3/31/00

Phase II Evaluation of Sites on TH 59

George R. Rapp, Jr., Archaeometry Laboratory, Duluth
Susan Mulholland, Archaeometry Laboratory, Duluth
St. of Minn., Department of Transportation
\$91,046 - 7/30/98-6/30/99

Processing and Analyzing Drilling Data:

Kewen Yin, Chemical Engineering, Duluth
St. of Minn., Department of Natural Resources
\$39,000 - 5/1/98-9/30/98

Development of Regional Groundwater Flow Model, Cass County, Minnesota

Howard Mooers, Geology and Geophysics
St. of Minn., Department of Health
\$52,814 - 8/1/98-4/30/00

Mechanistic Aspects of Nitric Oxide Production by Mitochondria

Cecilia Giulivi, Biochemistry and Molecular Biology, Duluth
National Science Foundation
\$107,883 - 7/1/98-8/31/99

American Indian Communication Patterns and Their Relationships

Thomas Peacock, Education and Human Service Professions, Duluth
Clayton E. Keller, Education and Human Service Professions, Duluth
St. of Minn., Department of Children, Families, and Learning
\$5,000 - 4/1/98-6/30/98

Correction

The Retail Food Industry Center

Jean Kinsey, Applied Economics
Alfred P. Sloan Foundation
\$1,500,000 - 7/1/98-6/30/01

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RESEARCH REVIEW

Office of Research and Technology Transfer

November 1998

Changes to Proposal Review and Processing

September's *Research Review* article, Late Proposals Need Your Teamwork, announced new requirements for proposal review and processing. According to the new requirements, effective December 1, 1998, depending on when you deliver the proposal to SPA, you may need to make corrections required by SPA and mail it to the sponsor yourself. Since the article was published, SPA has clarified these new roles and responsibilities. In brief, to receive full service from SPA staff:

- proposals to be delivered to the sponsor via express courier are due at SPA at 1 p.m. on the day they are to be postmarked or sent out;
- proposals to be delivered to the sponsor via local courier are due at SPA by 5 p.m. the day before they are to be delivered;
- Electronic FastLane proposals are due at SPA three working days before they are due at the NSF. The hard copy is due at SPA by 5 p.m. the day before it is to be submitted.

This change continues the University's transition to the new grants management model. Many of you are developing your proposals on the Electronic Grants Management System (EGMS). In the future, everyone will use this system. EGMS makes calculations and performs many of the checks that are currently done by grant administrators. These proposals need only minimal review by grant administrators. Since control and responsibility will be located at the local level, SPA's role will be to provide consultation, oversight and authorized signatures. The new proposal review and processing requirements reflect these changes in roles and responsibilities.

{continued on page 3}

Important Notice about Federal Express

SPA uses FedEx as its carrier for most of its express mail. You may be aware that FedEx and its pilot union have been in contract talks for some time and the union has sent out ballots to its members to vote on whether or not to strike.

A strike will have a significant impact on proposals and urgent correspondence. We suggest that you keep informed with the news or check FedEx's web site at: www.fedex.com/us. If they do strike, SPA will make alternative arrangements but all business will be slow. **If you have a proposal that is due at the end of November or December, you must take the strike possibility into consideration.** You may need to get your proposals into SPA *at least* a week before they need to arrive at the sponsor in order for them to be delivered on time.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 5

November 1998

Editor: Melinda Sewell (acting)

Editorial Assistant: Tove Jespersen

Interim Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Melinda Sewell, 612/624-1059, mel@ortta.umn.edu, or Tove Jespersen 624-0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr + 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr + 8.7%
Summer quarter TA, RA, AF	— 8.7%
Summer session TA, with tuition	\$12.44/hr + 8.7%
Summer session TA, without tuition	— 8.7%
Professional program assistant	— 8.7%
Dental fellow *	\$4.30/hr —
Medical fellow *	\$3.30/hr —

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612/624-2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Melinda Sewell, acting editor, 612/624-21059, mel@ortta.umn.edu.

What is a complete proposal?

A complete proposal includes the University's proposal routing form (PRF/BA23), all the forms and documents specified by the sponsor, and all the necessary copies, including one full copy for SPA. Incomplete proposals often get rejected by the sponsor so grant administrators check to make sure the proposal is complete before they send it out. Effective December 1, 1998, grant administrators will still perform this check but they will not make copies for you. SPA staff will let you know how many copies are needed and you must have the copies made and delivered to SPA. Remember to follow the application directions carefully and deliver complete proposals to SPA.

What is full service?

SPA staff will check, correct, sign, pack, and arrange for delivery of the proposal by a courier such as Federal Express. Once a proposal is in the courier's hands, be aware that the University cannot guarantee that the proposal will be delivered, particularly by a specific time. Courier errors, snow storms, equipment failures and other events have all contributed to proposals arriving late at their destination. You must take unforeseen events into consideration and avoid last-minute proposal delivery to SPA.

What is partial service?

SPA staff will check and sign the proposal. You or a staff person with the authority to deal with fiscal/administrative matters must be available to answer questions. You also must make corrections. SPA will have several typewriters available or you can use your own facilities. If you make corrections elsewhere, remember to bring it back before ORTTA's doors lock at 5 p.m. After corrections are made, SPA will sign the proposal and you are responsible for packing and mailing it to the sponsor yourself.

Specifics of the New Requirements**Proposals that will be delivered to the sponsor via express courier**

You must have your complete proposal at SPA *by 1 p.m. on the day it needs to be postmarked or sent out to the sponsor* in order to receive full service from SPA staff. Proposals received after 1 p.m. will receive partial service. SPA staff will process them after everything that arrived earlier, and then on a strictly first-come, first-served basis. No proposals can be delivered to SPA after ORTTA's doors lock at 5 p.m.

Proposals that will be delivered to the sponsor via local courier

You must have your complete proposal in SPA *the day before it is to be delivered to the sponsor by the couriers* in order to receive full service from SPA staff. Anytime during the day is fine but remember that security locks ORTTA's doors at 5 p.m.

Proposals that arrive the day they are to be delivered to the sponsor via local carrier will be given partial service and will be put with the other proposals and handled in the order in which they are received. Be aware that your proposal may not be reviewed in time for you to make corrections, obtain signatures, and then deliver it in time to meet the deadline.

FastLane proposals

All proposals developed using the National Science Foundation's (NSF) FastLane system must be electronically submitted to SPA *three working days before they are due at NSF*. You and SPA staff need this extra time because SPA is not able to make corrections to the proposal. You must have your complete hard copy in SPA by 5 p.m. the day before it is to be electronically submitted to NSF.

Proposals that arrive the day they are to be submitted will be put with the other proposals and handled in the order in which they are received. Be aware that your proposal may not be reviewed, signed, and submitted in time to make the deadline.

Even if you are not using FastLane, this three day deadline should be your goal. When the University completes its transition into electronic research administration at the end of this fiscal year, a new single deadline will be established for all proposals, electronic and paper.

Grants Management Committee

The Institutional Oversight Model

The Institutional Oversight Model in Grants Management, first mentioned in the July, 1998 Research Review, has been discussed in a number of meetings with faculty and administrators over the past few months. The feedback that has been received has strengthened the concepts of the model.

The model evolved out of an analysis of the roles and responsibilities of each unit of the University that deals with sponsored funds. The model describes the roles and responsibilities of various members of the University for elements of the grants management process. It establishes lines of authority within the University related to all transactions on sponsored projects. The fundamental aspect of the model is the decentralization of many of the responsibilities that now reside with the Office of Sponsored Projects Administration. What this means is that the principle of local oversight at the departmental and dean's level will be crucial.

The main aspects of the new oversight structure will involve the following University entities:

The Office of the Vice President for Research and Dean of the Graduate School is the central element in the model. This is where research policy is developed and monitored and where oversight is provided to assure that business processes related to research are proper and effective. The Office of Vice President is also responsible for Sponsored Projects Administration, and the Office of Institutional Oversight Analysis and Reporting.

The Sponsored Projects Administration (SPA), an office reporting to the Office of Vice President for Research, has the authority to deal directly with both federal and non-federal funding agencies relating to any aspect of externally funded activity at the University of Minnesota. Sponsored Projects Administration signs all applications for funding and has an approval function in issues related to expanded authorities. It also accepts all awards on behalf of the University. With Sponsored Projects Administration soon to be relieved of the responsibility of monitoring expense transactions over 500 dollars, it will be better able to provide more procedural and technical help on grants related matters, and advice on budget justifications.

The Office of Institutional Oversight is a new office. It is being established to facilitate the various oversight functions assigned to the Office of the Vice President for Research. Its function is to monitor and analyze transactional activity related to grants, to identify unusual activities, and to report problems to deans and department heads in order to implement resolutions. Along with

Sponsored Projects Administration, this office will report to the Office of Vice President for Research.

Principles

Three fundamental principles have been established that define the foundation of the Oversight Model. Given the centrality of the notions of responsibility, local control, and the term oversight itself, a clear definition of these terms is crucial. Accordingly, the following principles and definitions have been proposed.

To the extent possible, responsibility is maintained locally, so that decisions are made by individuals with the best information.

Responsibility is defined as the authority to make a decision and accountability associated with that decision.

Oversight is always separate from the operating unit that makes the decision.

Conclusion

By the time you read this, the Roles & Responsibilities document will have been finalized and published on the Vice President for Research Web site at <http://www.research.umn.edu/research.html>. The Institutional Oversight Model will have been finalized and the process of implementation of the model begun. A reader friendly version of the Roles and Responsibilities document will also be published and soon made available on the VP for Research Web site.

Environmental Health and Safety New Employee Training

3rd Thursday of every month

Boynton room N-101

Training for:

Lab Safety

Hazardous Waste

Infectious Agents

Free of charge.

To register, call UM's

Department of Environmental Health and Safety
612/626-6002

What's New in Grants Management

an index to changes and announcements

November 1998

(month 5 of UM fiscal 1999)

SPA Update 9912 - Revision to Cost Sharing Guidelines and New Cost Sharing Policy

Notice issued: 11/01/98 Supersedes: *Guidelines for Cost Sharing and Matching Funds on Sponsored Projects*

Effective date: 11/01/98

Change:

SPA has revised its guidelines on making cost sharing and matching contributions to sponsored projects. The guidelines are now University policy 2.3.1.1, *Offering Cost Sharing, Matching, and In-Kind Contributions on Sponsored Projects*.

Action to take:

Access the policy at <http://www.ortta.umn.edu/policy/respolicy.htm> or the Policy Library

SPA Update 9913 -New Proposal Review and Processing Requirements

Notice issued: 11/01/98 Supersedes: na

Effective date: 11/01/98

Change:

To receive full service from SPA staff, proposals to be delivered to the sponsor via express courier are due at SPA by 1 p.m. on the day they are to be postmarked or sent out; proposals to be delivered to the sponsor via local courier are due at SPA by 5 p.m. the day before they are to be delivered; Electronic FastLane proposals are due at SPA three working days before they are due at NSF; the hard copy is due by 5 p.m. the day before it is due at NSF. Proposals that do not meet these requirements will receive partial service.

Action to take:

See *Research Review*, November 1998, page 01.

SPA Update 9902 - New Reporting Invention Policy

Notice issued: 11/01/98 Supersedes: na

Effective date: 11/01/98

Change:

PTM has devised a new policy on Reporting Inventions. See the related article on page 6.

Action to take:

Access the policy on the web at <http://www.ortta.umn.edu/policy/respolicy.htm>.

Research Subjects Protection Programs

Institutional Review Board: Human Subjects Committee

In June and July 1998 the Institutional Review Board: Human Subjects Committee (IRB), through the Research Subjects' Protection Programs Office, conducted a survey of researchers to measure satisfaction with the review process and to elicit advice on ways to improve the process for review. Using a random sample of researchers who have recently submitted applications for review, we sampled approximately 100 researchers and received an exceptional 67 responses. Comments were thoughtful and included many excellent suggestions.

The results of that survey and implementation of suggestions will be described over the next few issues of *Research Review*.

Comments from survey respondents

An open-ended comment section allowed respondents to provide specific examples of concerns or issues surrounding IRB review. Space does not permit addressing all comments received, but many themes appeared in the comments which will be addressed below and in subsequent articles.

Comments on timing issues

The turnaround time is better than it has been previously; turnaround time is 11 weeks.

Amendments and stipulations could be turned around faster.

Original applications are not unreasonable in timing.

A quicker response could be made for requests for changes to studies *not* requiring new applications for changes to study.

There were many comments of this sort on the survey. The IRB and its staff are well aware that timing is a critical issues for most studies. We are constrained in our attempts to "hurry" by several factors:

- *Regulations require a full-convened board of the IRB to review research that is greater than minimal risk. This means that new studies, changes in studies, and continuing review for approval of studies, must be conducted at a full board meeting. While we do have six IRB meetings per month, delays in scheduling can occur.*
- *Office for Protection from Research Risks guidelines require that once a study has been reviewed by a committee, it should remain with that committee for all of its continuing review—this means changes, adverse events, and other business must be returned to the original committee. This results in time delays.*

- *There are limited staff resources for correspondence and record keeping. While the staff attempts to respond to all committee action in writing within five working days a committee meeting, sometimes this proves impossible. We are attempting to address resource issues.*

The RSPP web site lists study code numbers, dates of action, and meeting results. If a quick glance is all you want, we post all action to the web site within 24 hours of a committee meeting so that you can have some sense of what to expect in your correspondence.

Distributing a schedule of when committees meet to review proposals would be helpful. Some investigators feel they miss a deadline every time.

The RSPP web site lists meeting dates and deadlines. Paper copies can be obtained by calling the RSPP office and asking for a printout of the schedule (612/626-5654). Meeting dates are subject to change due to University holidays and committee quorum requirements.

Comments focused on the web site

The web site is helpful with some items that could be improved. One is that the application has a link, but it is not on-line. This is a necessity. Some of the other links, such as an e-mail link, don't work either. Comments and questions have been sent by e-mail that were never acknowledged or answered. If the IRB invites feedback and suggestions, someone should respond to the messages.

The web site is hard to get around on pages, and users get sent to places with no returns.

The IRB appreciates the comments on our web site. While we are proud of the current state of the web site, we see it as a work in progress and look to improve it and update it as our needs and the research community's needs change.

There was a link problem for some e-mail connections and that has been addressed. We apologize that misdirected mail was not answered and encourage the use of our generic e-mail address for routing concerns: irb@tc.umn.edu or iacuc@tc.umn.edu.

by Moira Keane, director, RSPP

New Information on Reporting Inventions to the University and the Sponsor

Administrative Policy Just Took Effect

When new inventions take shape in the minds or laboratories of University employees on University business, those inventions must be reported to the University and any outside sponsor of the work, so that they can protect their claims to the inventions.

A new University policy in this regard was established last month that outlines University policy and procedures for reporting inventions.

The reporting requirements apply to inventions that might be patentable, i.e. "any new and useful process, machine, article of manufacture, or composition of matter, or new and useful improvement thereof."

Faculty and staff who conceive of such an invention or bring it to practice need to notify the University Patent and Technology Marketing office. PTM will respond within two weeks regarding the patentability and commercial potential of the invention.

Reports to PTM should be made via its *Invention Disclosure Form*. See www.ortta.umn.edu/patents.htm. If at all possible, an invention should be reported to PTM at least three months before it is described in publication or any other public forum.

For the full text of the policy, see <http://www.fpd.finop.umn.edu/>.

The University *Intellectual Property Policy*, now undergoing revision, will no doubt incorporate invention reporting. But the University's negotiations with the NIH required that the reporting policy be adopted sooner, rather than later.

U.S. Department of Agriculture Public Views on Competitive Grant Programs

Prospective applicants to the U.S. Department of Agriculture now have the chance to tell USDA what it should put in upcoming program announcements. As announced in the October 2 *Federal Register*, USDA is inviting written public comment on competitive research, extension, and education activities. Opinions may be offered on priorities, program structure, or other aspects of the competition. Programs up for comment are:

- Biotechnology Risk Assessment Research
- Special Research Grants, Food Safety Research
- National Research Initiative Competitive Grants
- Higher Education Multicultural Scholars
- National Needs Graduate Fellowships
- Food Safety and Quality Initiative
- Community Food Projects Competitive Grants

Applicants have the chance to offer their thinking on grant programs which may have an impact on what fiscal 1999 announcements look like. On the other hand, the process could delay some competitions.

Contact Louise Ebaugh, Office of Extramural Programs, Competitive Research Grants and Awards Management, USDA-CSREES, Stop 2299, 1400 Independence Avenue SW, Washington, DC 20250-2299; 202/720-9181, fax 202/401-7752, rfp-oep@reeusda.gov.

Environmental Protection Agency Implementation Order to Streamline Small Grants

The number of Environmental Protection Agency (EPA) grant programs increased five-fold over the past ten years with a dramatic increase in grant awards averaging \$100,000 or less. Small grants account for about 50 percent of new awards, but less than 5 percent of the respective assistance dollars are awarded.

Previously, all grant awards, regardless of the dollar amount, were subjected to the same administrative requirements and procedures. EPA has now issued an implementation order to streamline, simplify and improve the administration of small grants. This order reduces the

administrative burden for both the EPA and the applicant/recipient while maintaining sufficient accountability. The intent is to increase customer satisfaction and to focus EPA's limited resources on larger-dollar grant programs.

The implementation order became effective on October 1, 1998. For further information contact Linda Yancey, Grants Administration Division, Environmental Protection Agency 401 M Street SW (3903R), Washington, DC 20460; 202/564-5352. You may also access the implementation order at <http://www.epa.gov/ogd/>.

Technology Transfer Agreements

July 1998 through September 1998

- 1-2. **Title:** **Modified Vitamin-K-Dependent Polypeptides**
Purpose: For speeding or slowing blood coagulation
Inventor: Gary L. Nelsestuen, Biochemistry
Licensee: DuPont Pharmaceuticals Co., Wilmington, DE Exclusive License Agreement
Licensee: Eli Lilly and Co., Indianapolis, IN Exclusive Option Agreement
3. **Title:** **Monoclonal Antibodies Reactive with Native and Denatured Cytochrome C from Various Species**
Purpose: For protein separation and identification
Inventor: Ronald R. Jemmerson, Microbiology
Licensee: R&D Systems, Inc., Minneapolis Nonexclusive License Agreement
4. **Title:** **Causative Agent of Sow Abortion and Mortality Syndrome (SAMS), Vaccine Compositions, Antibodies and Method**
Purpose: For prevention of disease in sows
Inventors: Han Soo Joo, Clinical & Population Sciences
Jinho Shin, Clinical & Population Sciences
Licensee: Boehringer Ingelheim/NOBL Laboratories, Inc., Ames, IA Research Agreement, Option Rights
5. **Title:** **Biopesticidal Compositions and Methods for Control of Streptomyces Scabies and other Plant Pathogens**
Purpose: For preventing plant disease
Inventors: Janet L. Schottel, Biochemistry
Daqun Liu, Plant Pathology
Linda L. Kinkel, Plant Pathology
Neil A. Anderson, Plant Pathology
Licensee: Novartis Seeds, Inc., Research Triangle Park, NC Nonexclusive Option Agreement
6. **Title:** **Monoclonal Antibodies for Detection and Quantification of Verticillium Spp. in Potato and other Species**
Purpose: For measuring plant disease
Inventors: Ernest E. Banttari, Plant Pathology
Javier Plasencia, Plant Pathology
Ronald R. Jemmerson, Microbiology
Licensee: AGDIA, Inc., Elkhart, IN Nonexclusive License Agreement
7. **Title:** **Strawberry Plant Called MNUS 248 ("Mesabi")**
Purpose: A cold-climate, high-yield strawberry that bears in midseason and resists disease
Inventors: James J. Luby, Horticultural Science
David K. Wildung, North-Central Experiment Station, Grand Rapids
Gene J. Galletta, Outside UM
Licensee: U.S. Dept. of Agriculture-ARS, Beltsville, MD Exclusive License Agreement
- 8-9. **Title:** **FINPACK Software**
Purpose: For farm management
Inventor: Richard O. Hawkins, Applied Economics
Licensee: Red Wing Business Systems, Inc., Red Wing, MN Nonexclusive Software License Agreement
Vertical Solutions, Inc., Minot, ND Nonexclusive Software License Agreement

10-11. Title: AMSOL Version 6.0
Purpose: For chemistry research
Inventor: Donald G. Truhlar, Chemistry
Christopher J. Cramer, Chemistry
Licensee: Oxford Molecular Ltd., Oxford, U.K. Nonexclusive Software License Agreement
MakoLab-Computer Graphics Lab, Lodz, Poland Nonexclusive Software License Agreement

Patents Issued July 1998 through September 1998

1. **Title:** Nanoimprint Lithography
Purpose: For building nanoelectronic and nonomechanical devices
Inventor: Stephen Y. Chou, Electrical and Computer Engineering

2. **Title:** Use of Opioid Antagonists to Treat Impulse-Control Disorders
Purpose: A pharmaceutical treatment for compulsive behavior, such as gambling
Inventor: Suck Won Kim, Psychiatry

3. **Title:** Synthetic Peptides with Bactericidal Activity and Endotoxin Neutralizing Activity for Gram Negative Bacteria and Methods for their Use
Purpose: For prevention and treatment of infection and toxic shock
Inventors: Beulah H. Gray, Microbiology
Judith R. Haseman, Microbiology
Kevin H. Mayo, Biochemistry

4. **Title:** Azavesamicols
Purpose: For radio-pharmaceutical study in living human brain, potentially for diagnosis of Alzheimer's disease; and as anticholinergic compounds for use in pesticides and muscle relaxants
Inventors: Stanley M. Parsons, Outside UM
Simon M. N. Efang, Radiology

5. **Title:** Kappa Opioid Receptor Agonists
Purpose: For therapeutically interacting with some opioid receptors but not others, thus avoiding side effects
Inventors: An-Chih Chang, Medicinal Chemistry
Philip S. Portoghese, Medicinal Chemistry

6. **Title:** Optical Fiber Amplifier
Purpose: For boosting signals in optical devices
Inventor: Anand Gopinath, Electrical and Computer Engineering

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

Chari, V.V., Christiano, L.J., Eichelbaum, M. Expectation traps and discretion. *Journal of Economic Theory* 81.2 (August 1998): 462-492.

Hur, Y.M., Bouchard, T.J., Lykken, D.T. Genetic and environmental influence on morningness-eveningness. *Personality & Individual Differences* 25.5 (November 1998): 917-925.

Kopf, D. Mind, body, and society: life and mentality in colonial Bengal. *Journal of the American Oriental Society* 118.1 (January-March 1998): 132.

Kane, M.J. Fictional denials of female empowerment: a feminist analysis of young adult sports fiction. *Sociology of Sport Journal* 15.3 (1998): 231-262.

Robinson, A.P., Burk, T.E. Sequential sampling of normal and non-normal populations. *Canadian Journal of Forest Research (Journal Canadien de la Recherche Forestiere)*. 28.5 (May 1998): 660-664.

Cunningham, C.W., Omland, K.E., Oakley, T.H. Reconstructing ancestral character states: a critical reappraisal. *Trends in Ecology & Evolution* 13.9 (September 1998): 361-366.

**Please send your new citations to
Tove@ortta.umn.edu.**

Fulton, D.S. Speak sister, speak: oral empowerment in *Louisa Picquet, The Octoroon*. *Legacy* 15.1 (1998): 98-103.

Silberman R. Arthur Dove: A retrospective. *Burlington Magazine* 140.1144 (July 1998): 506-507.

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Winter, M., Morris, E.W., Gutkowska, K., Jezewskazychowicz, M. Polish workers during economic transformation: stability and change, 1984-94. *International Labour Review* 137.1 (1998): 61 ff.

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Elliott, C. The tyranny of happiness: thoughts on cosmetic psychopharmacology. In *Enhancing Human Traits: Ethical and Social Implications*, E. Perens, ed. Washington, D.C.: Georgetown University Press, 1998.

Health Care Management and Health Sciences

Versluis, A., Tantbirojn, D., Douglas, W.H. Do dental composites always shrink toward the light? *Journal of Dental Research* 77 (1998): 1435-1445.

Korioth, T.W.P., Bohlig, K.G., Anderson, G.C. Digital assessment of occlusal wear patterns on occlusal stabilization splints: a pilot study. *Journal of Prosthetic Dentistry* 80 (1998): 209-213.

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Sakaguchi, R.L., Versluis, A., Douglas, W.H. Analysis of strain gage method for measurement of post-gel shrinkage in resin composites. *Dental Materials* 13 (1997): 233-239.

Weichselbaum, R.C., Feeney, D.A., Jessen, C.R., Osborne, C.A., Dunphy, E.D., Bartges, J.W. In vitro evaluation of contrast medium concentration and depth effects on the radiographic appearance of specific canine urolith mineral types. *Veterinary Radiology & Ultrasound* 39.5 (1998): 396-411.

Rodriguez, C., Revilla, M.A., Revilla, M., Revilla, E., Cornelissen, G., Arechiga, H., Halberg, F. El perfil cronobiologico de tension arterial y de frecuencia cardiaca en un grupo familiar, determinado mediante monitorizacion automatica. *Gac Med Mex* 134 (1998): 15-26.

Revilla, M., Jr., Rodriguez, C., Revilla, M., Sr., Revilla, E., Cornelissen, G., Halberg, F. Chronobiologic self-help starts in the family with blood pressure and heart rate monitoring. *EuroRehab* 1 (1998): 41-59.

Halberg, F., Cornelissen, G., Sonkowsky, R.P., Lanzoni, C., Galvagno, A., Montalbini, M., Schwartzkopff, O. Chrononursing (chronutrics), psychiatry and language. *New Trends in Experimental and Clinical Psychiatry* 14 (1998): 15-26.

Otsuka, K., Halberg, F. Chronobiological approach in cardiology. *Medical Specialist in Cardiology* 6 (1998): 69-73.

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

Agency for Health Care Policy and Research

Health Services Dissertation Research
PAR-98-111

The Agency for Health Care Policy and Research (AHCPR) announces its continued interest in supporting the Health Services Dissertation Research small grant program (R03).

AHCPR supports and conducts research to improve the outcomes, quality, access to, and cost and utilization of health care services. Research is designed to 1) improve clinical practice, 2) improve the health system's ability to provide access to and deliver high quality, high-value health care, and 3) provide policy makers with the ability to assess the impact of system changes on outcomes, quality, access, cost, and use of health care services. AHCPR programs and products are designed to be responsive to the needs of consumers, patients, clinicians, and other providers, institutions, plans, purchasers, and public and private policy makers at all levels.

AHCPR will accept applications from students seeking a doctorate in areas relevant to health service research. Potential applicants must be enrolled in an accredited doctoral degree program in the social, economic, management, medical, or health sciences that require a dissertation based on original research. All requirements for the doctoral degree, other than the dissertation and the notification that the dissertation faculty committee has approved the dissertation proposal, must be completed by the start date of the award.

Grants are usually awarded for 12 months or less, but may be awarded for up to 17 months. Total direct costs may not exceed \$30,000 for the entire project period. No supplemental funds will be awarded.

This is an ongoing program with annual application deadlines of **November 15** and **May 5**. A complete copy of the announcement may be found at <http://www.nih.gov/grants/guide/pa-files/par-98-111.html>.

Howard Hughes Medical Institute

The Howard Hughes Medical Institute is a nonprofit medical research organization dedicated to basic biomedical research and education. To aid in its research efforts, among other things, it assists in the training of graduate, postgraduate, and medical students. Research should probe basic biological processes or disease mechanisms in the following areas: biochemistry, bioinformatics, biophysics, biostatistics, cell biology, developmental biology, epidemiology, genetics, immunology, mathematical and computational biology, microbiology, molecular biology, neuroscience, pharmacology, physiology, structural biology, and virology.

Predocctoral Fellowships in Biological Science

Awards are intended for students at or near the beginning of their graduate study toward a Ph.D. or Sc.D degree. The initial award is for three years. The annual stipend is \$16,000 with no dependency allowance. The application deadline is **November 10, 1998**. Contact Hughes Predocctoral Fellowships, National Research Council Fellowship Office, 2101 Constitution Avenue, Washington, DC 20418; 202/334-2872, fax 202/334-3419, infofell@nas.edu, <http://www.fellowships.nas.edu>.

The Physician Postdoctoral Fellowship Program

Eligibility includes interns and residents, as well as physicians further along in their careers. Applicants must have obtained their first medical degree no earlier than 1989 and must have completed at least two years of post-graduate clinical training. Fellowship awards are for three years. The annual stipend is \$40,000 to \$60,000. The application deadline is **December 4, 1998**. Contact Howard Hughes Medical Institute, Office of Grants and Special Programs/MSPA99, 4000 Jones Bridge Road, Chevy Chase, MD 20815-6789; 301/215-8889, fax 301/215-8888, fellows@hhmi.org. <http://www.hhmi.org/fellowships>.

Research Training Fellowships for Medical Students

Fellowships are available to students currently enrolled in M.D. or D.O. programs in medical schools in the U.S.; they are not available to students enrolled in a laboratory-based science. The term of the fellowship is 12 consecutive months and the fellow must engage in research full time during that term. Stipends are \$16,000 with no dependency allowance. The application deadline for new awards is **December 2, 1998**; for continuations **March 12, 1999**. Continuation awards are offered only to a small number of outstanding fellows. Contact HHMI at the address and numbers above.

■ Leukemia Research Foundation

The Leukemia Research Foundation supports research on leukemia and related subjects. It is the foundation's intent to support new, unfunded projects in leukemia research not to provide continuing funding to ongoing projects. The foundation supports two types of research grants.

New Investigator Research Grants

Eligibility is restricted to investigators who are within five years of the end of their training or of their first faculty appointment at the time the award starts. Years as a resident physician, fellow physician, or post-doctoral fellow are considered to be training years.

Grants are awarded for one year with the possibility of a second year to be reviewed as a competing renewal. The maximum award for one year is \$50,000. Grants should be clearly identified as pilot funding for *new* projects.

Postdoctoral Fellowships

Persons with M.D., Ph.D. degrees, or equivalent, will be considered for one year, non-renewable salary support during their first to fourth years of postdoctoral training. Applicants must have at least one year of post-doctoral training remaining at the time the award is made. Residency programs are *not* applicable. Support will not exceed \$25,000.

The application deadline is **February 15, 1999**. For further information contact the foundation at 820 Davis Street, Suite 420, Evanston, IL 60201; 847/424-0600, fax 847/424-0606, leukreser@aol.com, <http://www.leukemia-research.org>.

■ VZV Research Foundation

The VZV Research Foundation announces its fourth international competition for research grants to study the origination and development of varicella-zoster virus (VZV) infections. Applicable areas of VZV research include virus-host interactions, neuron growth, nerve cell interactions, varicella, zoster, post herpetic neuralgia (PHN), and PHN pain management.

Post-doctoral scientists may apply for two-year grants. The yearly award of \$50,000 includes a \$35,000 annual salary plus a benefit allowance, and research allowance for the sponsoring lab. Three awards will be made.

The application deadline is **February 1, 1999**. For an application, please contact the VZVRF Fellowship Committee, VZV Research Foundation, 40 East 72nd Street, New York, NY 10021; 212/472-3181, fax 212/861-7033, vzv@vzvfoundation.org.

■ Department of Defense

U.S. Army Research Institute Behavioral Research

The U.S. Army Research Institute for Behavioral and Social Sciences (ARI) is inviting proposals for basic behavioral science research in areas such as leadership and individual performance. Priorities range from leadership to social structures affecting Army performance. ARI *will not* consider studies focusing on purely physiological mechanisms or psychopathology but will consider neuroscience approaches to memory, cognition, and personality.

ARI invites investigators to submit brief concept papers if they are uncertain about the program relevance of their projects. Concept papers are due **December 11, 1998**.

Research contracts average about \$100,000 a year for three years. Colleges, universities, and for-profits are eligible for support.

The proposal deadline is **February 9, 1999**. For further information contact Michael Drillings, 703/617-8641, drillings@ari.army.mil.

■ Procter & Gamble

University Exploratory Research Program

This year, Procter & Gamble's University Exploratory Research Program (UERP) has been modified significantly. For many years the UERP has provided a funding opportunity for researchers in a wide range of interest areas spanning chemical, physical, biological, and engineering sciences. While UERP will continue to solicit proposals which are truly exploratory in character—perhaps even speculative—this year's program has been focused on a single topic: polymer science.

A UERP proposal must include innovative polymer science or engineering and be relevant to P&G's global businesses. P&G's interests in polymers include creation of new, functional chemicals, processing techniques to deliver new benefits from "old" polymers, and novel chemical or physical manipulations to impart desired properties to solutions or solids.

Four proposals will be selected for funding at an amount of up to \$75,000 per year for up to two years.

The application deadline is **January 15, 1999**. For further information contact David P. Rice, Manager, External Research Programs. The Procter & Gamble Company, Miami Valley Laboratories, PO Box 538707, Cincinnati, Ohio 45253-8707, extresprgim@pg.com, <http://www.pg.com/abut/rnd>, fax 513/627-1153.

Funding Opportunities

Department of the Interior Fish and Wildlife Service Small Grants for North American Wetlands Conservation

The purpose of the 1989 North American Wetlands Conservation Act (NAWCA) is to promote long-term conservation of North American wetland ecosystems and the waterfowl and other migratory birds, fish, and wildlife that depend upon such habitat. The Fish and Wildlife Service is currently accepting proposals that request match funding for projects under this Act.

Funds may be used only for wetlands acquisition, creation, enhancement, and/or restoration; they *may not* be used for signage, displays, trails or other educational features, materials, or equipment. Proposals must represent on-the-ground project. An important factor in proposal evaluation is the anticipated magnitude of wetlands and wildlife resources benefits that will result from project.

Proposals may request no more than \$50,000 and one-to-one matching funds are required. Any overhead in the project budget must constitute 10 percent or less of the grant amount.

The application deadline is **December 4, 1998**. For more information and/or to request the small grant instructional booklet, call 703/358-1784, fax 703/358-2282, r9arw_nawwo@mail.fws.gov. For other information contact Dr. Keith A. Morehouse, Small Grants Coordinator, North American Waterfowl and Wetlands Office, 703/358-1784.

ORTTA Personnel Changes

Phil Norcross

Caring for *Research Review* for the past six years has been a pleasure for me. Thank you.

I hope it has also been of some service to you.

Research Review now passes into the hands of Tove Jespersen, its able and long-experienced editorial assistant; and Melinda Sewell, the executive assistant at ORTTA who works closely with Ed Wink, ORTTA's leader, and the Grants Management Committee to develop administrative policy.

I can be reached at philn@uswest.net.

— Phil Norcross
past editor

Kevin McKoskey

Kevin McKoskey has been appointed interim assistant director, replacing Todd Morrison. McKoskey will supervise grant administrators handling the National Science Foundation, business and industry, the State of Minnesota, voluntary health organizations, Minnesota Technology, Inc., and agricultural associations.

McKoskey will also temporarily continue to handle his former workload until a replacement is hired. He can be reached at his old number, 624-1521, or at his new number, 624-5066.

HRSA Bureau of Health Professions

Final Progress Reports and Final Financial Status Reports

In continuing its streamlining of management processes, the Health Resources and Services Administration, Bureau of Health Professions, has released new guidelines regarding final progress reports and final financial status reports.

Grantees must submit a final progress report and a final report of expenditures within 90 days of the expiration of termination of a grant unless an extension of time has been approved by the awarding office. Effective for grants that expire or terminate after June 30, 1998, the Bureau of Health Professions will *no longer* routinely notify grantees of the due dates for final progress and expenditure reports. Grantee institutions will be respon-

sible for submitting the reports, formats for which are at <http://www.hrsa.dhhs.gov/bhpr/grants.html>.

Any pattern of failure to adhere to established deadlines for submission of reports are grounds for excluding the grantee from special administration provisions, i.e., expanded authorities, for any other active Bureau funded program

Hard copies of the formats are available from Grants Management Officer, Bureau of Health Professions, HRSA, Room 8C-26 Parklawn Building, 5600 Fishers Lane, Rockville, MD 20782.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at ORTTA, tove@ortta.umn.edu.

Proposal and Award Summary		
	Number	Amount
Proposals Submitted		
September 1998	318	\$ 72,709,909
Awards Processed		
September 1998	312	33,875,445
Proposals Submitted		
July 1998 - September 1998	901	178,555,957
Awards Processed		
July 1998 - September 1998	1,019	103,368,769
Proposals Submitted		
July 1997 - September 1997	902	173,660,407
Awards Processed		
July 1997 - September 1997	861	104,092,220
Figures for August proposal submission printed in the October issue were incorrectly reported. The correct data is:		
Proposals submitted August 1998	298	\$ 54,017,047

Iron Acquisition in Bordetella Pertussis

Sandra K. Armstrong, Microbiology

NIH, NIAID
\$152,886 - 9/1/98-8/31/99

Vitamin A and Hormonal Regulation of the Cellular Retinoic Acid Protein 1 Gene

Li-Na Wei, Pharmacology

U.S. Department of Agriculture
\$115,658 - 9/1/98-8/31/00

Functional MRI of Cognitive Processes

Apostolos P. Georgopoulos, Physiology
Kamil Ugurbil, Radiology
Seong-Gi Kim, Radiology

NIH, NINDS
\$342,890 - 9/1/98-8/31/99

A Novel Vertebrate Transposon as a Vector for Gene Therapy

R. Scott McIvor, Human Genetics

Leukemia Research Fund
\$25,000 - 7/1/98-6/30/99

Transgender and Proud: Learning About Our Sexual Health

Walter O. Bockting, Family Practice and Community Health

St. of Minn., Department of Health
\$44,791 - 1/15/98-12/31/98

Genetic Fine Mapping of Systemic Lupus Erythematosis Sibling Pair Families

Timothy W. Behrens, Medicine
Richard A. King, Medicine

NIH, NIAMS
\$208,149 - 7/1/98-6/30/99

Autologous Peripheral Blood Stem Cell Transplantation for Non-Hodgkins Lymphoma

Catherine M. Verfaillie, Medicine

Leukemia Research Fund
\$25,000 - 7/1/98-6/30/99

Telemetry Implant Mouse Blood Pressure Monitoring

Silvia H. Azar, Medicine

Data Sciences, Inc.
\$13,971 - 6/1/98-2/28/99

Insulin and Blood Pressure Change During Adolescence

Alan Sinaiko, Pediatrics
Russell V. Luepker, Epidemiology
David R. Jacobs, Jr., Epidemiology

NIH, NHLBI
\$475,262 - 5/1/98-4/30/99

Regulation of Hepatocellular Function by Growth Hormone

Susan A. Berry, Pediatrics
Howard C. Towle, Biochemistry

NIH, NIDDK
\$219,035 - 5/1/98-1/31/99

A Titration and Open Label Study of Oros Methylphenidate

Gerald J. August, Psychiatry
George Realmuto, Psychiatry

Alza Corp.
\$209,188 - 8/17/98-5/1/00

Studies of Organ Transplantation in Animals and Man

Arthur Matas, Surgery

NIH, NIDDK
\$962,721 - 2/21/98-11/30/98

Neural Control of Adrenocortical Function

William C. Engeland, Surgery

National Science Foundation
\$90,000 - 7/1/98-6/30/99

Immunotoxin Gene Therapy for Selective Delivery of Catalytic Toxin to Myeloid Leukemia Cells

Daniel A. Vallera, Therapeutic Radiology

Leukemia Research Fund
\$30,000 - 7/1/98-6/30/99

The Genetic Epidemiology of Breast-Prostate Cancer

Lawrence Kushi, Epidemiology

Mayo Foundation
\$33,186 - 7/1/98-6/30/99

Chronic Illness Cost Modeling Project

Jon Christianson, Health Services Research

Healthsystem Minnesota
\$19,269 - 6/15/98-12/31/98

The Distribution and Transport of Lipids in Mucin Gels

Timothy S. Wiedmann, Pharmaceutics Research

NIH, NIDDK
\$130,840 - 9/1/98-8/31/99

Mouse Manipulative Genetics Initiative

David A. Largaespada, Cancer Center

Minnesota Medical Foundation
\$50,000 - 9/1/98-8/31/99

Myeloid Leukemia Program

David A. Largaespada, Cancer Center

Leukemia Research Fund
\$25,000 - 7/1/98-6/30/99

Neurochemistry of Nicoception

Patrick Mantyh, Preventive Sciences
Donald A. Simone, Psychiatry

U.S. Public Health Service
\$298,382 - 8/1/98-6/30/99

Molecular Markers of Feline Vaccine Induced Sarcomas

Sagarika Kanjilal, Dermatology
 Jeffrey S. Klausner, Small Animal Clinical Science
 Vivek Kapur, Veterinary Pathobiology

Morris Animal Foundation
 \$72,500 - 9/1/98-8/31/00

Vaccination Strategies Against Arian Pneumovirus

Sagar M. Goyal, Veterinary Medicine
 Kakambi V. Nagaraja, Veterinary Pathobiology
 David A. Halvorson, Veterinary Pathobiology

Minnesota Turkey Growers Association
 \$29,900 - 7/15/98-6/30/99

Developmental Expression and Biochemical Basis for Polysaccharide Storage Myopathy in Quarter Horses

Stephanie Valberg, Clinical and Population Sciences
 James R. Mickelson, Veterinary Pathobiology
 Melissa Hower, Clinical and Population Sciences

American Quarter Horse Association
 \$29,664 - 10/1/98-9/30/99

Survey of Copper, Zinc, Molybdenum Status in Minnesota Dairy Cattle

William G. Olson, Clinical and Population Sciences
 Mike Murphy, Veterinary Diagnostic Laboratory

(\$20,000) Zimpro Inc.
 (\$10,000) Hubbard Feeds, Inc.
 (\$10,000) Land O' Lakes, Inc.
 \$40,000 - 6/1/98-6/30/99

Phase II: Salmonella Typhimurium Vaccination

Kakambi V. Nagaraja, Veterinary Pathobiology
 David A. Halvorson, Veterinary Pathobiology

Midwest Poultry Consortium, Inc.
 \$20,000 - 7/15/98-6/30/99

Mechanics of Systems with Bi-Stable Elements

Lev Truskinovsky, Aerospace Engineering and Mechanics

National Science Foundation
 \$37,340 - 7/1/98-6/30/99

Star Formation Histories of Dwarf Irregular Galaxies II

Evan Skillman, Astronomy

Space Telescope Science Institute
 \$30,000 - 5/1/98-4/30/99

Fluorine-Silicon Interactions and Competitive Etching Pathways

John Weaver, Chemical Engineering and Materials Science

National Science Foundation
 \$340,000 - 9/1/98-8/31/01

Dynamic Materials Property Testing

William W. Gerberich, Chemical Engineering and Materials Science

Minnesota Technology, Inc.
 \$49,911 - 8/1/98-7/31/99

Thermospray Mass Spectrometry Ionization Processes: Fundamental Mechanisms for Speciation, Separation, and Characterization of Organic Compounds in DOE Wastes

Peter W. Carr, Chemistry

Oak Ridge National Laboratory
 \$57,000 - 6/1/98-9/30/98

Performance Tests for Modular Bridge Joints

Robert Dexter, Civil Engineering

National Research Council
 \$350,099 - 6/1/98-8/31/00

Fatigue Resistant Design of Cantilevered Signal Sign

Robert Dexter, Civil Engineering

National Academy of Science
 \$30,000 - 6/1/98-5/31/00

A Study on Emerging Disk Storage Technologies

David H. Du, Computer Science and Engineering

Seagate Technology Corp.
 \$68,393 - 9/16/97-9/15/98

Algorithmic Issues in Collaborative Information Filtering

Joseph Konstan, Computer Science and Engineering

National Science Foundation
 \$62,039 - 8/1/98-7/31/99

Performance Optimization of VLSI Interconnect

Sachin Sapatnekar, Electrical Engineering

National Science Foundation
 \$155,467 - 9/1/98-8/31/00

Weathering Characteristics of Rock from 3M Quarries

William E. Seyfried, Geology and Geophysics

Minnesota Mining and Manufacturing Co.
 \$20,000 - 1/1/97-1/2/00

Boundary Variations an Analytic Continuation in Electromagnetic and Acoustic Scattering

Fernando Reitich, Mathematics

National Science Foundation
 \$21,915 - 4/1/98-6/30/99

Sampling System for Measurement of Diesel Engine Particulate Matter

Virgil A. Marple, Mechanical Engineering
 Bernard Olson, Mechanical Engineering

Southwest Research Institute
 \$88,484 - 5/11/98-9/30/98

Function of an Alpha-Crystallin-Related Protein in the Heat Shock (Stress) Response

Nora Plesofsky-Vig, Plant Pathology
 Robert Brambl, Plant Pathology

U.S. Department of Agriculture
 \$120,450 - 7/1/98-6/30/00

Enhanced Vitamin K-Dependent Proteins

Gary L. Nelsestuen, Biochemistry

NIH, NHLBI
 \$302,424 - 7/15/98-6/30/99

Materials Characterization of Elastomeric Polypeptides

Dan Urry, Biological Process Technical Institute
 Matthew V. Tirrell, Chemical Engineering and Materials Science

USDoD, Navy
 \$426,631 - 5/1/98-12/31/98

Use of a Long-Term Data Base and Molecular Genetic Techniques

Donald B. Siniff, Ecology, Evolution, and Behavior

National Science Foundation
 \$130,978 - 7/1/98-6/30/99

Plant Pathogens in Natural Systems Agriculture

G. David Tilman, Ecology, Evolution, and Behavior
 Charles Mitchell, Ecology, Evolution, and Behavior

Land Institute
 \$6,000 - 6/1/98-5/31/99

Evolutionary Relationship of Gene Structure and Function

Georgiana May, Plant Biology

National Science Foundation
 \$54,508 - 9/1/98-8/31/99

Collaborative Research on Consumer Learning About Quality and its Role in Consumer Choice

Michael P. Keane, Carlson School of Management

National Science Foundation
 \$31,652 - 9/1/98-8/31/99

Rim Joist and Foundation Insulation Study

Patrick H. Huelman, Wood and Paper Science
 Louis F. Goldberg, Underground Space Center
 David Grimsrud, Graduate School

St of Minn., Department of Public Service
 \$25,000 - 7/1/97-6/30/98

A Theoretical Approach to Engineering Design

Beth E. Allen, Economics

National Science Foundation
 \$100,000 - 9/1/98-8/31/99

Adoption and Survival in Technological Epochs

Matthew Mitchell, Economics

National Science Foundation
 \$20,000 - 9/15/98-8/31/99

Sibling Models of Adolescent Alcohol Use and Abuse

Matt McGue, Psychology
 William G. Iacono, Psychology

NIH, NIAAA
 \$380,061 - 9/9/98-8/31/99

Life Course Model of Careers in Crime and Substance Use

Christoph Uggen, Sociology

U.S. Department of Justice
 \$45,903 - 6/1/98-5/31/99

Analysis of Policies Affecting the Comparative Advantage Of U.S. Agriculture in the World Economy

Terry Roe, Applied Economics

U.S. Department of Agriculture
 \$75,000 - 9/1/98-8/31/00

Production and Use of Porous Zirconia by Spray Drying for Large Scale Antibody Purification

Anuradha Subramanian, Biosystems and Agricultural Engineering

Zirchrom Separations, Inc.
 \$30,000 - 7/15/98-1/15/99

Influence of Light Intensity on Breeder Hen Reproductive Performance

Mohamed E. El Halawani, Animal Science
 Sally L. Noll, Animal Science

Minnesota Turkey Research and Promotion Council
 \$35,000 - 7/15/98-6/30/99

Insecticide Reduction in Small Grains

Ian MacRae, Entomology

Minnesota Wheat Research and Promotion Council
 \$30,000 - 6/1/98-5/31/00

Integrated Bean Root Rot Management

James A. Percich, Plant Pathology
 Richard A. Meronuck, Plant Pathology

Agricultural Utilization Research Institute
 \$30,000 - 6/1/98-5/31/00

Interactive 3-D Visualization of Molecules and Minerals in Soil Science Instruction

Edward A. Nater, Soil, Water, and Climate
 Ann H. Duin, Rhetoric

U.S. Department of Agriculture
 \$159,963 - 9/1/98-8/31/00

DNA-Based Markers for Assessment of Genetic Population Structure in Yellow Perch

Anne R. Kapuscinski, Fisheries and Wildlife
 Loren Miller, Veterinary Pathobiology

Great Lakes Fishery Commission
 \$40,000 - 9/30/98-11/30/99

Canyonlands National Park 1998 Research to Support River Management

David Lime, Forest Resources

USDI, National Park Service
 \$17,815 - 4/7/98-10/6/00

Carrying Capacity and Monitoring at Arches National Park

David Lime, Forest Resources

USDI, National Park Service
 \$13,200 - 7/1/98-9/1/99

Investigating the Effects of Traffic Calming Strategies

John Carmody, Underground Space Center
 Robert D. Sykes, Landscape Architecture

St. of Minn., Department of Transportation
 \$50,000 - 6/22/98-11/30/99

Law-Related Education for Adolescent Female Offenders

Patricia Avery, Curriculum and Instruction

U.S. Department of Justice
 \$94,055 - 10/1/95-9/30/98

A Systems Approach to Paraprofessional Development and Support

Jennifer York-Barr, Educational Psychology

U.S. Department of Education
 \$149,807 - 9/1/98-8/31/99

Radon Measurement and Mitigation Training

William J. Angell, Design, Housing and Apparel

St. of Iowa, Department of Public Health
 \$18,337 - 1/1/98-6/30/98

Body Composition and Chemosenses in Black American Women

Cheryl Smith, Food Science and Nutrition, CHE

NIH, NIA
 \$67,814 - 9/15/98-9/14/99

Newly Independent States Preacademic Training Program

Barbara Kappler, International Education

American Council of Teachers in Russian
 \$52,284 - 6/1/98-12/31/98

Minnesota Sea Grant College Program

Michael E. McDonald, Natural Resources Research Institute, Duluth

USDoC, NOAA
 \$960,137 - 2/1/98-1/31/99

Recycling of Mixed Glass

Cheri Trenda, Center for Transportation Studies
 Robert Johns, Civil Engineering

St. of Minn., Department of Transportation
 \$35,000 - 6/1/98-11/30/99

Cardiovascular Responses to Psychological Stress in Men and Women

Mustafa Al-Absi, Behavioral Science, Duluth
 Lorentz E. Wittmers, Jr., Medicine, Duluth
 Byron J. Crouse, Medicine, Duluth

Minnesota Medical Foundation
 \$10,000 - 9/1/98-8/31/99

Humanities Organization Network Operating Support Grant

William K. Miller, Glensheen, Duluth

Minnesota Humanities Commission
 \$4,000 - 8/6/98-6/1/99

Institute for Agricultural Career Exploration and Leadership

David Hoff, Agricultural and Natural Resources

St. of Minn., Department of Children, Families, and Learning
 \$5,000 - 6/10/97-6/30/97

Correction:**Health Sciences Education for the New Millennium**

Ellen Hable, Library
 J. Arth, Biomedical Library

Gail Weinberg, *Biomedical Library*

University of Illinois, Chicago
 \$6,000 - 7/1/98-9/30/98

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Research Subjects' Protection Programs, fax 626-6061			
Director	Moira Keane	626-5654	irb@umn.edu iacuc@umn.edu

Mailing List Changes

**ORTTA cannot change the faculty mailing list.
It is generated by the Human Resources office.**

For faculty changes, please call Human Resources, 200 Donhowe Bldg., 612/626-1656.
(Faculty labels are those with a string of nine numbers printed above the addressee's name.)

For changes regarding *other* labels, please complete the following:

Change	<input type="checkbox"/>	Name: _____
Add	<input type="checkbox"/>	Department: _____
Delete	<input type="checkbox"/>	Building & Room No.: _____
		City, State, Zip (if off campus): _____

Please enclose the mailing label!

Please mail this page to:

Tove Jespersen
Research Review
1100 Washington Ave. S., suite 201
Minneapolis, MN 55415-1226



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9/11/98

RESEARCH REVIEW

Office of Research and Technology Transfer

December 1998

New Sponsored Projects Offices

On November 13, 1998, Chris Maziar, Dean of the Graduate School and Vice President for Research, announced significant changes to what is currently known as the Office of Research and Technology Transfer Administration (ORTTA). The restructuring is part of the University's implementation of a new grants management model. The new model has been endorsed by the President's Executive Committee and Board of Regents; an initial reaction by NIH has also been positive.

In the new design, the present structure of ORTTA will no longer exist and in its place will be three new offices: Sponsored Projects Administration (SPA), Patents and Technology Marketing (PTM), and the Office of Institutional Oversight, Analysis, and Reporting. These changes will be implemented during the next few months. Ed Wink, who has been interim Associate Vice President for Research has accepted his position permanently as head of SPA. Tony Strauss will head PTM on an interim basis as that office is reorganized. Winifred Schumi, who had been

interim Assistant Vice President of ORTTA, has been appointed Assistant Vice President in charge of the Office of Institutional Oversight, Analysis and Reporting. Each of these offices will report directly to Dr. Maziar.

Dr. Maziar also announced that a transition team has been assembled to begin work on redesigning SPA. The team is composed of representatives from SPA, faculty, the Grants Management Project, and collegiate staff. David Hamilton, Win Ann Schumi, and Ed Wink are co-chairs and the rest of the team is comprised of Susan Stensland, SPA; Kevin McKoskey, SPA; Joan Donaldson, SFR; Scott McConnell, College of Education and Human Development; Arlene Bennett, Institute of Technology; Jeff Thomas, College of Biological Sciences; Gail Klatt, Internal Audits; Marc Jenkins, Medical School; and Jeff Derby, Institute of Technology.

The team's tasks include defining SPA's structure, individual job functions and responsibilities, and personnel

{continued on page 7 }

Just a reminder

Effective December 1, 1998, there are new proposal processing and approval requirements in SPA:

To receive full service from SPA staff:

- proposals to be delivered to the sponsor via express courier are due at SPA at 1 p.m. on the day they are to be postmarked or sent out;
- proposals to be delivered to the sponsor via local courier are due at SPA by 5 p.m. the day before they are to be delivered;
- Electronic FastLane proposals are due at SPA three working days before they are due at the NSF. The hard copy is due at SPA by 5 p.m. the day before it is to be submitted.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call ORTTA Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 6

December 1998

Editor: Melinda Sewell (acting)
 Editorial Assistant: Tove Jespersen
 Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Melinda Sewell, 612/624-1059, mel@ortta.umn.edu, or Tove Jespersen 624-0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr	+ 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr	+ 8.7%
Summer quarter TA, RA, AF	—	8.7%
Summer session TA, with tuition	\$12.44/hr	+ 8.7%
Summer session TA, without tuition	—	8.7%
Professional program assistant	—	8.7%
Dental fellow *	\$4.30/hr	—
Medical fellow *	\$3.30/hr	—

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612/624-2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Melinda Sewell, acting editor, 612/624-1059, mel@ortta.umn.edu.

ORTTA Asks for Assistance in Responding to Sponsor Demands for Year 2000 Certification

During the past few months, ORTTA has received an increase in the number of letters from sponsors who demand certification that researchers on their projects have resolved any problems they may have regarding the year 2000. Ed Wink, Associate Vice President for Research, says that the problem will only get worse. "In the past sponsors asked for general certification by the University that its systems are compliant. Now they're requiring individual principal investigators to certify on their projects." ORTTA, the Office of Institutional Technology (OIT), and the Office of the General Counsel have been working hard to resolve these issues without requiring significant time from faculty members. When grant administrators receive new letters or contracts that ask for y2000 certification, they refer the documents to the General Counsel's office for review before responding. However, Wink says that because of the change in the volume and nature of the letters, additional work has become necessary. This, he says, is where faculty can help.

First, he asks that principal investigators forward to his office any letter or document that asks for assurances that their projects are y2000 compliant or any surveys about the issue. He stresses that they should make no written statements or representations about y2000 compliance.

Second, he requests that principal investigators read and complete the questionnaire, *Year 2000 Disclosure For Research*, which they will receive from ORTTA. ORTTA and OIT will use the completed questionnaire to work with researchers to resolve any potential problems. Wink stresses that it is important to work proactively. Some proposal applications are requiring principal investigators to certify compliance and faculty rarely have the time to resolve these issues at the last minute.

Third, he suggests that researchers visit OIT's website at www.umn.edu/oit/year2000. OIT is aware of researcher's limited time and resources and has worked hard to make it easy for them to address the year 2000 issue. The tools they have on their site include:

For computers:

- A list of software programs that indicates whether the program is compliant (for example, Microsoft Excel 97 for Windows is compliant while Microsoft Access 2.0 for Windows is not compliant)
- A diagnostic test that researchers can run to evaluate their computer hardware.

For other research equipment:

- A tool that researchers can use to evaluate whether the equipment or embedded electronic may have compliance problems. (If the answer is 'yes' to any of the questions, the researcher may get free diagnostic assistance.)
- A list of firmware (embedded electronics) to help researchers consider everything in the facilities that they supervise (e.g., security systems, lab analyzers, heating ventilation equipment (HVAC)).
- A list of manufacturer's websites that provide information about whether their equipment is compliant.
- A UofM listserv to share information.

OIT will also provide researchers, upon request, with a complementary CD-ROM to scan popular PC data bases such as MicroSoft Access, dBase, and FoxPro. Requests may be sent to y2k@cafe.tc.umn.edu.

Changes to the Research Review Mailing List

Because of new software being used by Human Resources to create our mailing list, we have revised the list of individuals who will *automatically* receive the *Research Review*. Effective this month, individuals in the following categories are on the mailing list:

- Deans, Directors, and Department Heads
- Active faculty who are Assistant Professors and above, including those individuals who are on unpaid leave but still employed (for example, sabbaticals)
- Clinical Researchers

If you know of someone from one of these categories who used to get the *Research Review* but has stopped receiving it, or if you receive it and do not want it, *please call Human Resources at 626-2241*. Under the new system, all additions, changes, or deletions from this list *must be handled by Human Resources*. Changes sent directly to ORTTA will be discarded, as we no longer have the proper authority to make changes.

If you do not fit any of the above parameters (administrative staff, etc.), we would be happy to include you on ORTTA's separate, supplemental mailing list. Call Tove Jespersen at (612) 624-0061.

SPA Question and Answer

At the End of the Project Period, Does NSF Automatically Grant a 6-month, No-cost Extension?

At the end of a project period, NSF *does not* automatically grant a 6-month no-cost extension.

Per NSF Grant Proposal Guidelines, Sponsored Projects Administration (SPA), as the institutional representative, may authorize a one-time extension of the expiration date of the grant of up to 12 months if additional time beyond the established expiration date is required to assure adequate completion of the original scope of work within the funds already made available. This one-time extension may not be exercised merely for the purpose of using the unliquidated balances.

If additional time beyond the extension provided by the grantee is required and exceptional circumstances warrant, a formal request must be submitted to NSF for approval. SPA cannot approve these requests.

Whether you choose to submit either type of extension request via FastLane or in writing, you must include the revised expiration date requested, the need for the extension, an estimate of the unobligated funds remaining and a plan for their use. If you choose to make your request in writing, the principal investigator and department chair or dean's endorsement is required and *must* be submitted to the appropriate grant administrator in SPA.

FastLane submissions also require the endorsement of the department chair or dean. Either print out a copy of your request and send to the department chair or dean for signature and have it delivered to SPA within the deadline requirements or attach your FastLane request in an e-mail to the department chair or dean and have them indicate their approval and forward it to awards@ortta.umn.edu.

For grantee approved no-cost extensions, please note that NSF requires notification of the extension at least ten days prior to the expiration date specified in the grant to ensure accuracy of NSF's grant data.

For NSF-approved extensions, the request must be received by the cognizant NSF program office at least 45 days before the expiration date of the grant.

Please note: For SPA to meet these deadline requirements, the P.I. would need to deliver the request to ORTTA with enough time for the request to be sent via Federal Express or FastLane. As indicated above, unobligated funds that may remain at the expiration of the grant is not in itself sufficient justification for an extension. The plan must adhere to the previously approved objectives of the project.

If either type of request misses the NSF-imposed deadline, the request must be submitted to NSF in writing with the PI, department head or dean, and institutional representative's signature. FastLane will not accept extension requests that are submitted past the deadline.

Any NSF-approved no-cost extension will be issued by an NSF Grants Officer in the form of an amendment to the grant specifying a new expiration date. NSF does not issue an amendment when the extension is approved by SPA.

Principal investigators are cautioned not to make new commitments or incur new expenditures after the expiration date in anticipation of a no-cost extension.

Principal investigators are *strongly encouraged* to use FastLane to transmit their no-cost extension requests to NSF. Please note that some NSF Directorates *require* electronic submission of requests for NSF-approved no-cost extensions via FastLane. Please check the cognizant Directorate or FastLane Web site to see if submission via FastLane is required.

by Sandy Kenyon

Ninth International Zebra Mussel and Aquatic Nuisance Species

Conference

April 26 to 30, 1999

Duluth Entertainment Convention Center

**Hosted by the University of Minnesota
Sea Grant Program**

The conference invites 500 to 750 word abstracts for oral or poster presentations.

Attach abstracts to a message to
Elizabeth Muckle-Jeffs at
profedge@renc.igs.net, or send disks with
Microsoft Word or WordPerfect files.

For more information, call Muckle-Jeffs at
800/868-8776, or see www.zebraconf.org/.

National Institutes of Health

Revised Forms Now Available

As published in the *NIH Guide*, November 12, 1998, the revised (4/98) PHS 398 and PHS 2590 grant application forms and instructions are now available, and may now be used by applicants.

For the January/February 1999 application receipt dates, use of the revised forms is encouraged. The new forms *must* be used for receipt dates of May 10, 1999 and thereafter.

NIH has not provided hard copies of the application kits to ORTTA. They may be obtained from EGMS at <http://www.ortta.umn.edu> or from NIH at <http://www.nih.gov>.

New NIH Grants Policy Statement

The National Institutes of Health (NIH) has published a new grant policy statement, effective for all NIH grants and cooperative agreements with budget periods beginning on or after October 1, 1988.

Significant changes include new rebudgeting thresholds for Alterations and Renovations, new thresholds for negotiation of patient care rates, change in prior approval requirements for audiovisual activities, and a new definition of "significant rebudgeting."

The new guide and list of significant changes are available on ORTTA's web site (<http://www.ortta.umn.edu>).

Sponsored Projects Administration

Weiss Steps Down

Mary Lou Weiss, Assistant Director, Sponsored Projects Administration (SPA), will be stepping down from her role as Assistant Director.

Weiss has been a University employee since 1957 and with the research office in various roles since 1968. She will continue to work in SPA on a part-time basis, approximately three days a week. The exact date of change, now anticipated as January 31, 1999, and Weiss' new role at SPA will continue to evolve during the next few weeks as it is decided how to best use her many years of experience and knowledge.

Fiscal 1999 Federal Spending Package

The huge omnibus fiscal 1999 spending package that President Clinton signed into law in October means major grant increases for many grant programs under the health, education, and social services heading.

The centerpiece for competitive grants is the \$2 billion increase for the National Institutes of Health. The increase will permit funding of close to an unprecedented 10,000 new and competing research project grants, even with a planned increase in average size. The final total for NIH—a record \$15.6 billion, mostly for grants.

The Department of Education received a \$3.5 billion increase, of which a relatively small portion will be devoted to competitive grants. About \$1 billion alone will go for noncompetitive teacher-hiring block funds, and another \$120 million will go to the GEAR UP early intervention initiative to prep students for college. ED will also launch a \$260 million reading excellence literacy initiative. And there are increases, though more modest, in existing programs, including \$147 million for the Fund for the Improvement of Education, \$115 million for Technology Challenge grants, \$90 million (up from \$25 million) for the competitive national programs for safe and drug-free schools, and \$81 million for the National Institute for Disability and Rehabilitation Research.

For education-related programs outside the Department of Education, the budget allocated:

Head Start:	\$4.6 billion
National Institute for Literacy:	\$6 million
AmeriCorps:	\$425 million
NEH:	\$110 million
NEA:	\$98 million
USIA:	\$203 million
Health Professions Training:	\$304 million
USDA Distance Learning:	\$12.5 million
Commerce Infrastructure Grants:	\$18 million
Institute of Museum Services:	\$166.2 million

Excerpted from *Federal Grants and Contracts Weekly*
Vol. 22, No. 41, October 26, 1998

Research Subjects Protection Programs

Institutional Review Board: Human Subjects Committee

In June and July 1998, the Institutional Review Board: Human Subjects Committee (IRB) conducted a survey of researchers. Some results of that survey were printed in the November 1988 *Research Review*; other results will be printed over the next few issues.

Comments on the application forms

Put the application form, including the template consent form, on a Mac/IBM disk, and/or give access to these forms on the web. Doing it on paper is not the way to go! (Multiple comments about web site forms).

Application forms, in a new format, are on the web site! Users may download a "pdf" form or a WORD document and complete the forms.

The new format was designed to standardize the information needed for most studies on a single form and require appendices for special issues or special characteristics of study participants.

Comments focused on information and correspondence

Letters indicating necessary changes could be written to more precisely describe what is required as well as what is needed to re-submit for final approval.

The IRB staff try valiantly to communicate and coach—but we are also trying to hurry and get correspondence out quickly. Sometimes our goals conflict. If our letters are not precise, or if more information is required, the staff will be happy to provide it.

Since IRB regulations change frequently, it would be helpful to know the new/additional requirements immediately so applicants can account for them without having to add another 1-2 weeks for approval. Possible suggestions for such notification include 1) web site, 2) half slips attached to applications, 3) voice mail.

The web site does alert researchers to new regulations and news events. It is not easy to anticipate the nuances and changes that will be prompted by each study coming for review. When we see a pattern or need a position on a new guideline, the IRB executive committee works to formulate a standard that can be applied across all the IRBs. We will consider other means of communicating new information such as those suggested.

Considering that federal regulations cannot be changed, there seems to be significant interpretation left to the IRB. In the past, but still too often currently, comments received from the IRB are personal interpretation. This puts investigations and investigators too subject to the whims of the IRB.

The IRB staff and committee members must be excruciatingly sensitive to their own prejudices and piques.

The IRB needs to expand its list of relatively innocuous protocols, even if these employ experimental methods, to permit automated approvals. It also needs to cut down the sheer response time. This may make extraordinary demands on IRB staff and committee members, but is essential that this happen.

The Committee has been responsible for feedback on decisions and not rigid.

The IRB is guided by federal regulations and guidelines promulgated by the Office for Protection from Research Risks (OPRR) and the Food and Drug Administration (FDA). These regulations establish a baseline or common denominator for compliance. It is the responsibility of the local institution to establish and enforce guidelines in keeping with local and state norms.

Both agencies have delegated the responsibility of oversight and protection to the local level. This allows for local culture and standards for review to be effected. While the "whim" of the local IRB may appear restrictive or capricious, most actions taken by the IRB can be directly traced to a human subject protection issue. If a researcher disagrees with a recommendation made by the IRB and feels that the regulations and local standards have been misapplied, the researcher should inform the IRB. As noted in the last comment, the IRB does reconsider.

Comments on specific policy questions

Why do secondary data sets (e.g., census, etc. and other governmental) require a filing of IRB forms. This seems like "busy work" and since these are public domain, it seems redundant. However, without this filing, the students and faculty know they cannot proceed.

It is not clear that all 2° data analyses must be submitted to the IRB.

There were two specific policy questions and they both related to secondary use of data. The IRB will incorporate a more thorough discussion of this aspect of the federal regulations in training programs. Federal regulations do require the review of all research that involves records gathered on human subjects. If the data is stripped of identifiers and is publicly available, the researcher just completes an exemption request form and the IRB staff can process the request. Access to private records and records with identifiers requires more scrutiny, but typically a protocol for adequate protection can be developed and most of this research is processed quickly.

by Moira Keane, director, RSPP

The New On-Line Purchase Request (PREQ) Screen

On December 1, 1998, faculty, technicians, students and others will be able to use the new on-line PREQ to order materials, **supplies and standard services**. This new screen is part of the University-wide Financial FormsNirvana (FFN) implementation, although FFN training is not required **for this document**. It is targeted specifically to PIs and their colleagues who need to purchase things, but who do not need to know detailed accounting procedures required to complete a Purchase Order (PO). The PREQ will replace leaving sticky notes on desktops, e-mails, voice mails and conversations in the hallway.

The PREQ is simple to use, avoids duplication and will increase efficiency within units. This is how it works:

- Open the PREQ in your web browser (Netscape or Internet Explorer), using either a PC, a MacIntosh or a Unix workstation.
- Enter what you want to buy, from whom to buy it, what it costs and a *short* scientific justification tying the purchase to the goals of the grant or contract.
- Click on the *Submit* button.

After clicking the *Submit* button, the request is routed electronically to a person who can complete it and turn it into an official University Purchase Order (PO). The information that you provided in the PREQ automatically flows into the on-line PO and an e-mail enters the document into the job queue of the person who will complete the PO. With a normal workload, the PO can be completed within a matter of minutes (or at most a few hours) and sent on to the local transaction approver and thence to the vendor. All but the last step will be done electronically.

To use the PREQ you need to do two things. First (and most important) your department must be using Financial FormsNirvana. Check with your administrative support staff to see if your department is participating yet. Second, you, as an individual, need to be signed up to use Financial FormsNirvana as well. Sign up is a simple process handled on-line while sitting with someone who already has "prepare" access to Financial FormsNirvana, but you will need to know your X.500 username and your password. Your X.500 username is the portion of your University e-mail address that precedes the @tc.umn.edu. There is a job aid available to assist in navigating through the form.

Contact the FSS Helpline at (612) 624-1617 if your department is not participating in Financial FormsNirvana yet.

Year 2000

{continued from page 1}

required for complete implementation of the model.

Tasks will also include working with Dr. Maziar and Senior Vice President Cerra to develop a commitment to the new model by SPA staff and collegiate research administrators.

Dr. Maziar noted that other facets of the Grants Management Model will be implemented over the next months. She noted the need for effective communication about the changes between the campus and SPA and stressed the University's commitment to the model. In her announcement, Dr. Maziar said, "I believe that there may be no more important task before the University community this year than the effective implementation of the Minnesota Grants Management Model."

The New Office of Institutional Oversight, Reporting, and Analysis

One of the first questions posed to Dr. Maziar during this meeting was the role of the Office of Institutional Oversight, Reporting, and Analysis. Dr. Maziar responded that in the new grants management model, many activities related to sponsored project management will be handled by trained collegiate and department staff. However, there is still an institutional need for oversight over those activities. Although the office's functions will evolve over time, the plan is for staff to analyze reports and other information to watch for patterns of spending and noncompliance. They will also perform sampling of financial transactions to monitor the effectiveness of the certified approver program. Their findings will be passed on to appropriate officials to determine whether further investigation or training is needed.

We Wish You All a
Happy Holiday Season
and a
Productive New Year
— the Staff at ORTTA

What's New in Grants Management

an index to changes and announcements

December 1998

(month 6 of UM fiscal 1999)

SPA Update 9914 - NIH Award Notices to Arrive Electronically

Notice issued: 12/01/98

Supersedes: na

Effective date: 11/19/98

Change:

The National Institutes of Health (NIH) is using e-mail rather than the postal service to send award notices to the University. These notices will be forwarded electronically to principal investigators.

Action to take:

Handle award according to departmental procedures.

SPA Update 9915 - On-Line Purchase Request Available

Notice issued: 12/01/98

Supersedes: na

Effective date: 12/01/98

Change:

A new purchase request screen is available in Financial FormsNirvana.

Action to take:

No training is necessary. See *Research Review*, December 1998, page 7.

Index to Date

Sponsored Projects Administration (SPA)

- Update 9901:* Generic proposal added to EGMS
- Update 9902:* Changes to manual
- Update 9903:* Additional information required in letter to transfer a project to another institution
- Update 9904:* Revised overview brochure
- Update 9905:* PIs must budget some effort on every proposal
- Update 9906:* What are preaward accounts and preaward costs?
- Update 9907:* SPA staff have part-time office in the AHC RSO
- Update 9908:* Web provides new financial report: The Budget Variance Summary

- Update 9909:* Do pre-proposals have to go through SPA?
- Update 9910:* Payment Vouchers (PV) available for electronic departmental entry
- Update 9911:* Late proposals need your teamwork
- Update 9912:* Revision to Cost Sharing Guidelines and new Cost Sharing Policy
- Update 9913:* New Proposal Review and processing requirements

Patents and Technology Marketing (PTM)

- Update 9901:* New PTM brochure
- Update 9902:* New Reporting Invention Policy

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

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Please send your new citations to
tove@ortta.umn.edu

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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

American Association for Cancer Research

Elion Cancer Research Award

This award provides a one-year, \$30,000 research award to an assistant professor at an academic or not-for-profit research institute. Favored applications are those demonstrating a candidate's independence, creativity, and promise in making progress against cancer. One award is made each year. The application deadline is **December 15, 1998**.

Career Development Awards

These two-year awards are intended for junior faculty in the first or second year of a full-time, tenure-track appointment at the assistant professor level. The annual stipend is \$50,000 and is intended to support transitional support for direct research expenses as researchers move from the ranks of young investigator to faculty status. The application deadline is **January 15, 1999**.

Postdoctoral and Clinical Fellows

Six to ten fellowships in basic, clinical, translational, and prevention research will be awarded to clinical and postdoctoral fellows. Some awards will be one-year \$30,000 fellowships; others will be renewable for a second year at the same amount. Each applicant must receive a strong nomination from a member of the AACR. Applicants themselves must be members of, or submit application for membership in, the AACR. The application deadline is **January 15, 1999**.

All guidelines and application forms may be downloaded from the AACR website at <http://www.aacr.org>. For other information contact the American Association for Cancer Research, Public Ledger Building Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483; 215/440-9300, fax 215/440-9372, horst@accr.org.

United States Information Agency Fulbright Senior Scholar Program

The Office of Academic Programs of the United States Information Agency's Bureau of Educational Cultural Affairs announces an open competition. Qualified public and private organizations may submit proposals to provide administrative and program services for the Fulbright Senior Scholar Program in Fiscal Year 2000.

The Fulbright Program was created at the end of World War II to exchange U.S. and foreign students and scholars, providing them with the opportunity to experience first-hand the political, economic, and cultural institutions and societies in each other's countries. The program extends to approximately 140 foreign countries and involves 5,000 participants overall every year. In FY2000 the Senior Scholar Program will send abroad approximately 750 U.S. scholars and professionals to lecture and conduct research, and will bring to this country approximately 800 grantees for similar activities.

The Fulbright Program is both programmatically and administratively complex. It must accommodate a variety of circumstances in every geographic region of the world and be responsible to and supportive of many different constituencies, each with its own set of goals and concerns. Applicants for this cooperative agreement—whether single organizations or consortia—must therefore present a plan for administration of the program worldwide. The recipient will be responsible for 1) program planning, 2) publicity, 3) receipt of applications, 4) applicant screening and nomination, 5) post nomination services, 6) fiscal management, and 7) program monitoring and reporting.

It is anticipated that funding for program administration will be approximately \$4.5 million. In addition, a program budget totaling approximately \$28 million for the global Fulbright Senior Scholar Program will be transferred to the recipient of the award in quarterly installments. Based on successful annual review, the award will be for four years, and may be renewed beyond that period.

The application deadline is **February 8, 1999**. For further information contact Ms. Rosalind Swenson, Office of Academic Programs, Academic Exchanges Division, E/AE, Room 234, U.S. Information Agency, 301 4th Street SW, Washington, DC 20547; 202/619-4360, fax 202/401-5914, rswenson@usia.gov. Refer to the announcement's title and reference number E/AE-00-01. The solicitation package

■ McKnight Foundation

Technological Innovations in Neuroscience

The McKnight Foundation has established a new McKnight Technological Innovations in Neuroscience Award to stimulate the development of novel approaches to exploring and understanding how the brain functions. The fund is especially interested in catalyzing new ways of 1) monitoring brain activity in awake, behaving animals; 2) increasing the spatial and temporal resolution of brain imaging methods; 3) simultaneously measuring the activity of ensembles of neurons; 4) monitoring synaptic plasticity in developing and living organisms; 5) delineating changing patterns of gene expression; and 6) introducing genes and controlling gene expression in specific classes of neurons.

Each award will provide \$100,000 annually for two years as seed funding for highly innovative projects.

Interested investigators should submit a letter of intent (not to exceed two pages) presenting the essence of their project and indicating how an award would accelerate its realization. Letters must be received by **January 29, 1999**. Full proposals will be invited; up to three awards will be made. Additional rounds of awards are anticipated in the future.

Letters should be sent to, and further information may be requested from, The McKnight Technological Innovations in Neuroscience Award, The McKnight Endowment Fund for Neuroscience, 600 TCF Tower, 121 South Eighth Street, Minneapolis, MN 55402.

■ American Association of University Women

Community Action Grants

The American Association of University Women (AAUW) Educational Foundation is inviting applications for Community Action Grants to support programs and non-degree research projects that promote education and equity for women and girls. Projects must have direct public impact, be nonpartisan, and take place within the United States or its territories. Past project examples include math and science camps; gender equity training; curriculum development; sexual harassment workshops for faculty and students; and mentoring programs.

AAUW will give consideration to AAUW branch and state applicants who seek partners for collaborative projects. Collaborators may include local schools and school dis-

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tricts, businesses, and other community-based organizations.

Eligible applicants are women who are U.S. citizens or permanent residents, and AAUW branches. The foundation expects to award about 40 one-year grants ranging from \$2,000 to \$7,000, and five two-year grants ranging from \$5,000 to \$10,000.

Applications will be available until January 15. The application deadline is **February 1, 1999**. For more information contact Sandra McChesney, AAUW Education Foundation, Department 60, 2201 North Dodge Street, Iowa City, IA 53343; x 60, aauw@act.org, <http://www.aauw.org/3000/fdnfelgra.html>.

■ AARP Andrus Foundation

The American Association of Retired Persons (AARP) Andrus Foundation is requesting letters of intent for "cutting-edge" aging research in two categories: 1) aging and financial security, and 2) living with chronic health conditions.

The first topic deals with *Future Directions in Private Savings*, including studies on the impact of legislation on savings patterns; employer efforts to educate employees about private savings opportunities; the psychosocial factors affecting saving decisions. The second topic deals with the *Economic Impact of Chronic Health Conditions*, including studies determining the economic consequences on individuals living with (multiple) chronic health conditions, and on family members who offer care and support.

In the financial category, up to 10 grants will be awarded for up to two years for a maximum of \$75,000, including indirect costs. In the chronic health category, up to 10 grants will be made for up to two years for a maximum of \$100,000, including indirect costs.

A two-page letter of intent is requested by **January 15, 1999**. If interested, the foundation will invite a full proposal. Further information may be obtained from the AARP Andrus Foundation, 601 East Street NW, Washington, DC 20049; 202/434-6190; andrus@aarp.org; <http://www.andrus.org>.

■ **National Institutes of Health**
National Institute of Nursing Research
NINR Career Transition Award
 NR-99-002

The National Institute of Nursing Research (NINR) invites applications for a program to support individuals to obtain a research training experience at NIH in the intramural research laboratories and to facilitate their successful transition to independent researchers.

The NINR Career Transition Award will provide up to three years of support for research training in an NINR or NIH intramural clinic or basic laboratory followed by up to two years of support for an independent program of research in an extramural institution.

Individuals with a doctoral degree, or its equivalent, who have demonstrated the potential for a highly productive research career are eligible to apply. During the intramural phase of the award, the candidate is expected to devote 100 percent effort on research; during the extramural phase, the candidate must spend a minimum of 75 percent of effort on research. Minorities and women are encouraged to apply. To progress to the extramural support phase, the candidate must have a formal tenure-track (or equivalent) offer from an extramural institution.

Total cost for the intramural phase is based on the candidate's experience and research expenses, not to exceed \$125,000; those for the extramural phase cannot exceed \$125,000 plus fringe benefits per year in direct costs. NINR anticipates funding up to three awards in FY 1999. The earliest feasible start date will be fall, 1999.

A letter of intent is requested by **March 15, 1999**; the application receipt date for full proposals is **May 14, 1999**. The announcement may be found at <http://www.nih.gov/grants/guide/rfa-files/RFA-NR-99-002.html>.

■ **Centers for Disease Control and Prevention**
Limb Loss Research and the Prevention of Secondary Conditions

The Centers for Disease Control and Prevention (CDC) announces the availability of FY99 funds for a cooperative agreement program for limb loss research and the prevention of secondary conditions. The purpose of the program is to advance the field of limb loss epidemiology, surveillance, data analysis, and intervention design including health promotion programs.

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Only one award will be made for a total of \$500,000 including direct and indirect costs, for up to four years. Project funds may be used to support personnel services, supplies, equipment, travel, subcontracts, and other services consistent with the approved scope of work.

A non-binding letter of intent is requested by **December 22, 1998** describing the scope of the proposed project in not more than three pages.

The application deadline for full proposals is **January 20, 1999**. To receive additional written information and to request an application kit, call 1-888-GRANTS4 (1-888-472-6874). You will be asked to leave your name and address and the announcement number (99009). The announcement, application forms, and funding information are also available at <http://www.cdc.gov>.

■ **National Science Foundation**
Instrumentation for Materials Research Program

The National Science Foundation, Directorate for Mathematical and Physical Sciences, Division of Materials Research (DMR), is accepting proposals for Instrumentation for Materials Research (IMR). DMR supports a wide range of programs addressing fundamental phenomena in materials, materials synthesis and processing, structure and composition, properties and performance, and materials education.

The IMR program considers proposals for 1) the development of major new instruments which a) demonstrate the potential to significantly extend current capability, and b) have broad application in materials research and education; and 2) the acquisition of major new research instruments which will provide new capability and/or advance current capability.

Proposals will be accepted from individuals seeking to purchase or develop instruments which have a total cost of more than \$100,000, or from interdisciplinary groups seeking support for major shared instruments to be purchased or developed. Because of the high cost and complexity of major instruments, proposals for shared instruments are strongly encouraged. In past years, up to 30 new awards were made annually for one or two years for instrument acquisition, and up to five years for instrument development.

The application deadline is **January 29, 1999**. The announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9924>.

National Science Foundation Postdoctoral Fellowships

The National Science Foundation continues to offer Postdoctoral Fellowships in Science, Mathematics, Engineering, and Technology Education (PFSMETE).

To be eligible for a PFSMETE fellowship, individuals must 1) be citizens, nationals, or permanent residents of the U.S. at the time of application, and 2) have received by January 1, 1995 but no later than October 1, 1999, a doctoral degree (Ph.D. or equivalent) in one of the science, mathematics, engineering, and technology (SMET) fields supported by NSF. Education degrees are not eligible.

Approximately 20 fellowships will be offered in 1999 for 24 months, with the possibility of a 12 month extension. The stipend will be \$3,000 per month, plus a research allowance of \$500 per month to be used at the discretion of the fellow for scientific or educational supplies, special travel, publication costs, and other research-related expenses. \$750 per month will be paid to the institution as an allowance to defray other costs in hosting the fellow.

The application deadline is **February 1, 1999**. The announcement may be found at <http://www.nsf.gov/cgi-bin/getpub?nsf9917>.

Department of Commerce Evaluation and Diffusion of Telecommunications

The U.S. Department of commerce is inviting proposals for studies to expand knowledge of the use of telecommunications in the nonprofit sector and improve the usefulness and applications of telecommunications technology in the public and nonprofit arena.

The goals of the solicitation are to increase understanding of the use and effects of information infrastructure in public and nonprofit sectors; establish a knowledge base of public and nonprofit sector applications of telecommunications and information technologies for nationwide information dissemination, technical assistance, and continued research and evaluation in the support of the development of a national information infrastructure; and speed diffusion of technology innovations in the public and nonprofit arenas.

Research should pertain to interoperability and scalability of telecommunications and information technology systems and networks; community involvement in the development and implementation of technology-mediated

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projects; reducing disparities and providing access to information infrastructure technologies; telecommunications and information technology-induced organizational change; innovative techniques and methodologies for evaluating applications of telecommunications and information technology projects in the public and nonprofit sectors; and assessment of future information infrastructure needs in the public and nonprofit sectors.

Proposals may be submitted **at any time**, but no later than **June 22, 1999**. For further information contact Francine Jefferson, Commerce Department, NTIA/Office of Telecommunications and Information Applications, TIIAP, Room 4096, 1401 Constitution Avenue NW, Washington, DC 20230; 202/482-2048. The announcement is available from the National Institute of Standards and Technology, Acquisitions and Assistance Division, Building 301, Room B117, Gaithersburg, MD 20899, <http://www.nist.gov/admin/od/contract.htm>. Refer to BAA-SBNT-98-01.

Department of Energy Plasma Physics Junior Faculty Development Program Program Notice 99-02

The Office of Fusion Energy Sciences, Office of Energy Research, U.S. Department of Energy, announces its interest in receiving grant applications for support under its Plasma Physics Junior Faculty Development Program.

Applications should be from tenure-track faculty investigators who are currently involved in experimental or theoretical plasma physics research, including any area of plasma physics research not only magnetic fusion. Emphasis is to be placed on basic plasma science research.

Funding levels up to \$150,000 per year may be made available. Up to three awards may be made with multiple year funding.

The application deadline is **February 3, 1999**. For further information contact Dr. Ronald McKnight, U.S. Department of Energy, Office of Fusion Energy Science, Science Division, ER-55, 19901 Germantown Road, Germantown, MD 20874-1290; 301/4597 ron.mcknight@oer.doe.gov. Other information may be found at <http://www.er.doe.gov/production/grants/grants.html>.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at ORTTA, tove@ortta.umn.edu.

Proposal and Award Summary		
	Number	Amount
Proposals Submitted		
October 1998	338	\$ 82,869,579
Awards Processed		
October 1998	187	22,361,732
Proposals Submitted		
July 1998 - October 1998	1,238	261,413,043
Awards Processed		
July 1998 - October 1998	1,209	125,730,501
Proposals Submitted		
July 1997 - October 1997	1,282	224,368,816
Awards Processed		
July 1997 - October 1997	1,094	127,925,877

Brain Imaging and Preclinical Markers in Alzheimer's Disease
 Michael Kuskowski, Psychiatry
 Veterans Administration
 \$161,200 - 10/1/98-9/30/01

General Operating Support
 Lyndel I. King, University Art Museum
 Institute of Museum Services
 \$112,500 - 10/1/98-9/30/00

Minnesota Community Bicycle Safety Project
 Cynthia McArthur, Minnesota Extension Service
 St. of MN., Department of Public Safety
 \$10,000 - 10/1/97-9/30/98

Updates on 60 Language Offerings
 Louis E. Janus, International Studies
 University of California, Los Angeles
 \$8,000 - 8/15/97-12/31/98

Mental Health Services for Uninsured People with HIV
 B.R. S. Rosser, Family Practice & Community Health
 Hennepin County
 \$4,064 - 5/3/97-2/28/98

Expression Of Metalloproteinases and Tissue Inhibitors of Metalloproteinases by Human Glomerular Epithelial Cells in Diabetic Conditions
 Uma Krishnamurti, Laboratory Medicine & Pathology
 National Kidney Foundation, Inc.
 \$2,985 - 7/1/98-6/30/99

Amicus™ Separator Peripheral Blood Stem Cell Research
 J. Jeffrey McCullough, Laboratory Medicine and Pathology
 Kristen Mascotti, Laboratory Medicine and Pathology
 Baxter HealthCare Corp.
 \$121,013 - 5/26/98-5/25/99

Sudden Cardiac Death in Heart Failure Trial
 David G. Benditt, Medicine
 Duke University
 \$86,300 - 6/1/97-5/31/02

Modulation of Muscarinic Responses by Inositol Lipids
 Esam E. El-Fakanany, Psychiatry
 NIH, National Institutes of Health
 \$128,121 - 2/1/98-1/31/99

Compositional Structure of the Human Renal Interstitium in Health and Type I Diabetes
 Avi Katz, Pediatrics
 National Kidney Foundation of the Upper Midwest, Inc.
 \$3,000 - 7/1/98-6/30/99

Sex Differences in Rats: Three Phases of Drug Addiction
 Marilyn E. Carroll, Psychiatry
 Wendy J. Lynch, Psychology
 NIH, National Institutes of Health
 \$20,761 - 9/28/98-9/27/99

IV Zoledronate in Prostate Cancer Patients with Metastatic Bone Disease
 John Hulbert, Radiology
 Cesar Ercole, Pharmacology
 Novartis Pharmaceuticals Corporation
 \$167,103 - 7/1/98-4/30/01

Specialized Medical Resources Health Science Specialist Services
 William M. Thompson, Radiology
 Veterans Administration
 \$84,693 - 1/1/98-12/31/99

Assessment of Myocardial Blood Flow with Magnetization Transfer Contrast MRI
 Nikolaos Tsekos, Radiology
 Radiological Society of North America
 \$24,750 - 7/1/98-6/30/99

Pigs on a Low-Risk, Non-Diabetogenic, Anti-Rejection Protocol
 Bernhard J. Hering, Surgery
 David E. Sutherland, Surgery
 R. Paul Robertson, Medicine
 Juvenile Diabetes Foundation
 \$100,000 - 9/1/98-8/31/99

Testing Infection Resistance in the Guinea Pig Model
 Richard W. Bianco, Surgery
 St Jude Medical, Inc.
 \$27,359 - 5/16/98-5/15/99

Differential mRNA Expression in Skin Fibroblasts and Risk of Diabetic Nephropathy
 Abhay Vats, Pediatrics
 National Kidney Foundation of the Upper Midwest, Inc.
 \$3,000 - 7/1/98-6/30/99

Pollution Prevention Training for Industrial Employees
 Ian A. Greaves, Environmental & Occupational Health
 Legislative Commission on Minnesota Resources
 \$164,353 - 7/1/97-6/30/99

Update of FMC Pocatello Plant Mortality Study
 Jack S. Mandel, Environmental & Occupational Health
 FMC Corporation
 \$150,000 - 7/1/98-9/30/99

National Study of Health and Nutrition
 Dianne Neumark-Sztaine, Epidemiology
 Fred Hutchinson Cancer Research Center
 \$973,967 - 3/10/97-8/31/98

Development of Novel Nucleoside Therapeutics
 Carston Wagner, Medicinal Chemistry
 Advanced Magnetics, Inc.
 \$210,000 - 8/1/98-7/31/01

Pigs on a Low-Risk, Non-Diabetogenic, Anti-Rejection Protocol Targeted to the Specific Problems Posed by Free Islet Allografts

David E. Sutherland, Surgery
R. Paul Robertson, Medicine

Juvenile Diabetes Foundation
\$100,000 - 9/1/98-8/31/99

Measurement, Indicators, and Improvement of the Quality of Life in Nursing Homes

Rosalie A. Kane, Health Services Research & Policy
Robert L. Kane, Health Services Research & Policy

Health Care Financing Administration
\$850,000 - 6/1/98-11/30/00

Center for Excellence in Xeno Diagnostics

Lawrence B. Schook, Veterinary Pathobiology

Nextran, Inc
\$135,000 - 6/1/98-12/31/99

Pathogenesis of Pneumovirus Infection of Turkeys

Daniel P. Shaw, Veterinary Diagnostic Laboratory
Sally L. Noll, Animal Science

Minnesota Turkey Research and Promotion Council
\$4,800 - 7/15/98-6/30/99

Direct Numerical Simulation & Modeling of Solid-Liquid Flows

Daniel D. Joseph, Aerospace Engineering & Mechanics
Yousef Saad, Computer Science

National Science Foundation
\$2,000,000 - 9/15/98-8/31/01

Optical Flux Monitor for Molecular Beam Epitaxy

C.J. Palmstrom, Chemical Engineering & Material Science

Gradient Technology
\$48,930 - 9/15/98-9/30/99

Composite Interaction of Steel Frame Members and Reinforced Concrete Walls under Seismic Loading

Jerome F. Hajjar, Civil Engineering
Arturo E. Schultz, Civil Engineering

Carol Shields, Minnesota Extension Service, 4H Center
National Science Foundation
\$109,935 - 9/1/98-8/31/99

Freeze-Thaw Durability of Dry Cast Concrete

Mark B. Snyder, Civil Engineering

Elk River Concrete Products
\$23,441 - 4/10/98-1/31/99

Distributed Object-Oriented Management

Wei-Tek Tsai, Computer Science

Fujitsu Laboratories, Ltd.
\$40,000 - 4/1/98-3/31/99

New Pulse-Echo System for Real-Time 3D Cardiac Imaging

Emad S. Ebbini, Electrical Engineering

NIH, NHLBI
\$172,762 - 9/16/98-8/31/99

Acoustic Emission Sensors for Aircraft Structural Monitoring

Dennis L. Polla, Electrical Engineering
William P. Robbins, Electrical Engineering

Lockheed Martin Corporation
\$75,000 - 1/1/98-12/31/98

Temperature and Acoustic Feedback for Therapeutic Ultrasound

Emad S. Ebbini, Electrical Engineering

NIH, NCI
\$16,887 - 9/1/98-2/28/99

Magnetic Studies of Lake Sediments

Subir K. Banerjee, Geology & Geophysics
Peter A. Vlag, Geology & Geophysics
Feng S. Hu, Geology & Geophysics

National Science Foundation
\$127,560 - 10/1/98-9/30/00

Development of Interactive Visualization Modules for Use in Geoscience Education

Kent C. Kirkby, Geology & Geophysics

National Science Foundation
\$69,232 - 9/1/98-2/29/00

Experimental Study of Basin Stratigraphy

Christoph Paola, Geology & Geophysics

Exlar Corporation
\$25,000 - 8/1/98-7/31/99

Performance of Pulsed Magnetically Treated Cutting Tools

Barney Klamecki, Mechanical Engineering

Magnetic Processing Systems, Inc.
\$59,568 - 8/15/98-8/15/99

Synthesis of Nanostructured Films for Friction and Wear

Steven L. Girshick, Mechanical Engineering
William W. Gerberich, Chemical Engineering & Materials Science
Joachim V. Heberlein, Mechanical Engineering

National Science Foundation
\$659,868 - 10/1/98-9/30/01

Establishing the Efficacy of Cryomyolysis

John C. Bischof, Mechanical Engineering

National Science Foundation
\$4,581 - 9/15/97-8/31/98

Overtopping Test

Richard L. Voigt, Jr., St. Anthony Falls Laboratory

International Erosion Control Systems, Ltd.
\$25,000 - 8/7/98-10/31/98

Biodegradable Plastics from Yeast and Plants

Friedrich Srieenc, Biological Process Technology Institute
David A. Somers, Agronomy & Plant Genetics

Consortium for Plant Biotechnology Research
\$90,000 - 7/1/98-6/30/99

Regulation of Asymmetric Flagellar Waveforms

Paul A. Lefebvre, Genetics & Cell Biology

NIH, NIGMS
\$173,125 - 9/15/98-8/31/99

Evolution of Plant Resistance Genes

Georgiana May, Plant Biology

National Science Foundation
\$80,000 - 9/15/98-2/29/00

Day Seminar on Islam in Minnesota

Caesar E. Farah, Afro-American/African Studies

Minnesota Humanities Commission
\$2,000 - 3/20/98-6/30/98

Economics of Organic Farming: Transition Costs of Organic Systems

Kent Olson, Applied Economics

U.S. Department of Agriculture
\$15,000 - 8/18/98-6/30/00

Improving Air and Water Quality in Minnesota Livestock Operations

R Vance Morey, Biosystems & Agricultural Engineering
Larry D. Jacobson, Biosystems & Agricultural Engineering
Kevin A. Janni, Biosystems & Agricultural Engineering

St. of Minn., Department of Agriculture
\$330,000 - 10/22/97-6/30/99

Alternative Swine Production Systems

Donald L. Wyse, Agronomy & Plant Genetics
 St. of Minn., Department of Agriculture
 \$125,000 - 3/15/98-6/30/99

Improving Lysine Content and Nutritional Value of Corn

Burle G. Gengenbach, Agronomy & Plant Genetics
 Purdue University
 \$123,000 - 9/1/98-8/31/00

Biological Control of Alfalfa Blotch Leafminer in the Upper Midwest

George Heimpel, Entomology
 William D. Hutchison, Entomology
 University of Wisconsin, Madison
 \$31,572 - 8/1/98-7/31/01

Purple Loosestrife, Cooperator Rearing Program

David W. Ragsdale, Entomology
 Roger L. Becker, Agronomy & Plant Genetics
 Steven Katovich, Entomology
 U.S. Department of Agriculture
 \$11,000 - 9/30/98-10/1/99

Non-Thermal Plasma Treatment of Hazardous Gases

Rongsheng Ruan, Food Science & Nutrition (AG)
 DAR Technologies
 \$198,812 - 6/1/98-5/31/99

A Regional, Multi-Agency Partnership for Improving Agriculture

James L. Anderson, Soil, Water, & Climate
 Bruce Giebink, Biosystems & Agricultural Engineering
 Michigan State University
 \$5,000 - 9/15/97-12/31/98

Impacts of Riparian Harvest Practices on Stream Fish

Raymond M. Newman, Fisheries & Wildlife
 St. of Minn., Department of Natural Resources
 \$79,337 - 9/1/98-9/30/01

Acclimation/Adaption of Leaf Respiration in Eastern Deciduous Forests

Paul Bolstad, Forest Resources
 Peter B. Reich, Forest Resources
 National Science Foundation
 \$125,000 - 9/1/98-8/31/99

Enhancing the Recreation Inclusion of Young Adults with Disabilities

Brian Aberly, Educational Psychology
 David W. Johnson, Educational Psychology
 U.S. Department of Education
 \$139,999 - 10/1/98-9/30/99

School-to-Work-Training Project

David R. Johnson, Educational Psychology
 Teri Wallace, Institute on Community Integration
 St. of Minn., Department of Children, Families, & Learning
 \$23,483 - 6/15/98-9/15/98

Demonstration Projects for Children and Youth with Disabilities

Teri Wallace, Institute on Community Integration
 David R. Johnson, Educational Psychology
 U.S. Department of Education
 \$148,696 - 10/1/98-9/30/99

Citysongs: A Youth Development Project in Music

Helen Q. Kivnick, School of Social Work
 Ramsey County
 \$14,582 - 7/1/97-12/31/98

National Institute on Domestic Violence the African American Community

Oliver Williams, School of Social Work
 PHS, Women's Health
 \$12,494 - 9/21/98-1/29/99

Citysong: A Youth Project in Music

Helen Q. Kivnick, School of Social Work
 Metropolitan Regional Arts Council
 \$2,000 - 6/3/97-12/20/97

The Value of Citizen Work

Nan Skelton, Humphrey Institute
 St. of Minn., Department of Children, Families, & Learning
 \$4,000 - 5/22/98-8/31/98

Kerlan Awards and 50th Anniversary Outreach Project

Karen N. Hoyle, Library Administrative Services
 Minnesota Humanities Commission
 \$4,000 - 6/15/98-6/30/99

Drug Information Service

Gail Weinberg, Biomedical Library
 St. of Minn., Department of Human Services
 \$106,188 - 10/1/97-6/30/99

Formula Funds Program

Dale Schatzlein, University College
 Minnesota State Arts Board
 \$127,575 - 7/1/97-6/30/98

Non-Commercial Radio Station Block Grant

Andrew J. Marlow, University College
 St. of Minn., Department of Administration
 \$36,364 - 7/1/98-6/30/99

Hardwood Lumber I-Joist Manufacturing

Brian K. Brashaw, Natural Resources Research Institute, Duluth
 U.S. Department of Agriculture
 \$13,618 - 9/21/98-9/30/99

Archaeological Survey of Whiteface Reservoir

George R. Rapp Jr, Archaeometry Laboratory, Duluth
 Susan Mulholland, Archaeometry Laboratory, Duluth
 Minnesota Power
 \$10,547 - 9/1/98-6/30/99

IV-E Child Welfare Training, 1998-99

Esther F. Wattenberg, School of Social Work
 Jean K. Quam, School of Social Work,
 Kathleen E. Nuccio, Social Work, Duluth
 St. of Minn., Department of Human Services
 \$707,215 - 8/1/98-7/30/99

A Zooplankton Population Dynamics Model

Meng Zhou, Large Lake Observatory
 National Science Foundation
 \$115,760 - 10/1/98-9/30/00

Correction:**Function of an Alpha-Crystallin-Related Protein in the Heat Shock (Stress) Response**

Nora Plesofsky-Vig, *Plant Biology*
 Robert Brambl, *Plant Biology*
 U.S. Department of Agriculture
 \$120,450 - 7/1/98-6/30/00

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 Technology licensing Michael F. Moore 624-9531 michael@ortta.umn.edu
 Technology licensing TBA 624-8205 @ortta.umn.edu
 Technology transfer coordinator (Sota Tec Fund) TBA 625-8826 @ortta.umn.edu

Indirect Cost, Effort Certification

Indirect cost and other rate development, and effort reporting TBA 626-9741
 Effort help line 625-7824

Information Services

MIS coordinator Mary Cybyske 624-6085 mcybyske@ortta.umn.edu
Levels & Trends and proposal and award data questions Mary Bendtsen 624-0583 mary-b@ortta.umn.edu

Duluth, Office of Research & Technology Transfer

Sr. grant and contract administrator Jim Loukes 218/726-7583 jloukes@ub.d.umn.edu

Morris, Grants Development, <http://www.mrs.umn.edu/services/grants>

Director Tom Mahoney 320/589-6462mahoneyt@caa.mrs.umn.edu

related numbers

Sponsored Financial Reporting, fax 626-0321

Manager Joan Donaldson 624-6026 joan@ortta.umn.edu
 Supervisor, nonfederal, foundations, St. of MN Dan Hemauer 624-5007 dan-h@ortta.umn.edu
 Supervisor, industry, NSF, subcontracts Kerry Marsolek 624-8053 kerry@ortta.umn.edu
 Supervisor, NIH, USDE Pat Healy 624-7033 pat@ortta.umn.edu
 Supervisor, other federal Renee Frey 624-7850 renee@ortta.umn.edu

Research Subjects' Protection Programs, fax 626-6061

Director Moira Keane 626-5654 irb@umn.edu
iacuc@umn.edu

Mailing List Changes

**ORTTA cannot change the faculty mailing list.
It is generated by the Human Resources office.**

For faculty changes, please call Human Resources, 200 Donhowe Bldg., 612/626-2241.
(Faculty labels are those with a string of nine numbers printed above the addressee's name.)

For changes regarding *other* labels, please complete the following:

Change **Name:** _____
Add **Department:** _____
Delete **Building & Room No.:** _____
City, State, Zip (if off campus): _____

Please enclose the mailing label!

Please mail this page to:

Tove Jespersen
Research Review
1100 Washington Ave. S., suite 201
Minneapolis, MN 55415-1226



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University of Minnesota

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UNIVERSITY OF MINNESOTA

RESEARCH REVIEW

Office of Research and Technology Transfer

January 1999

Grants Management After the ALG Settlement: Full Speed Ahead

On November 17, 1998, the University settled the ALG lawsuit by agreeing to pay the federal government \$32 million: \$20 million paid upon settlement, \$8 million paid in installments over the past month, and \$4 million will be paid during the next three years to support research that would have been funded through federal grants. Researchers have asked members of the Grants Management project whether this settlement will have any effects on their work. According to Winifred Schumi, Project Manager for the Grants Management project, the settlement will have no immediate impact on the researchers. "Nothing will be different for the researchers. We did not lose our Exceptional status and we will continue to implement the corrective action plan." Because the "exceptional" designation has not been lifted, researchers on NIH grants and contracts must still clear routine changes and expenditures with federal authorities.

Schumi was, however, optimistic about the long-term effects of the settlement. "Now we can talk to them," she said. Since the NIH placed the University on exceptional status in 1995, leaders of the Grants Management Project have been hindered in communicating directly with the NIH

{next column}

about their plans and any issues that arise. Both parties had to be careful about what was said and correspondence was scrutinized because of potential legal implications. Now that the suit is settled, direct communication between the University and NIH is possible.

For example, if project leaders have questions about NIH's interpretation of a specific policy or requirement, they can now call the NIH's policy office and discuss the issue. Schumi says that plans are already underway for agency members to visit the University and informally discuss the changes that have taken place in grants management. She believes that because of these improved relations, implementation of the corrective action plan will be smoother and, ultimately, the University's exceptional designation will be removed faster.

Prior Approval Requests to be Sent Electronically to the NIH

Effective immediately, the National Institutes of Health (NIH) and the office of Sponsored Projects Administration (SPA) have agreed that prior approval requests from principal investigators at the University will be sent electronically to the NIH. Staff at the NIH and SPA have arranged for this service to make it easier and faster for PIs to receive approvals. To send an electronic prior approval request:

Principal Investigator:

1. Initiate and compose the request using the requirements outlined in "Content of Prior Approval Requests" on page 5 of this issue. In order to make this process easier and more efficient, SPA has developed forms for each type of request. Use of the forms is optional, and they are available on its website at: www.ortta.umn.edu/forms/forms.htm. Instructions for preparing and e-mailing the form are on that website.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612/624-5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612/626-9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 7

January 1999

Editor: Melinda Sewell (acting)

Editorial Assistant: Tove Jespersen

Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Melinda Sewell, 612/624-1059, mel@ortta.umn.edu, or Tove Jespersen 624-0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When submitting proposals, please use the following rates.

Graduate and Professional Student Assistants

New rates effective July 1, 1998

TA, RA, AF: standard	\$6.59/hr + 8.7%
TA, RA, AF: advanced master's or Ph.D.	\$1.15/hr + 8.7%
Summer quarter TA, RA, AF	— 8.7%
Summer session TA, with tuition	\$12.44/hr + 8.7%
Summer session TA, without tuition	— 8.7%
Professional program assistant	— 8.7%
Dental fellow *	\$4.30/hr —
Medical fellow *	\$3.30/hr —

To the rates listed above, add 7.7% when a graduate student is enrolled for fewer than 4 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental fellows and is always charged for medical fellows. Hence the medical fellow rate totals \$3.30/hr + 7.7%.

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612/625-7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/97 - 6/30/98	28.2%	27.1%	14.0%
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612/624-2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Melinda Sewell, acting editor, 612/624-1059, mel@ortta.umn.edu.

EGMS Reaches a Milestone

In December, the Electronic Grants Management System (EGMS) passed another milestone: release of EGMS Version 1.0. The system and its website will now remain stable for users; improvements and additional forms will be added as later versions. Members of the EGMS development team greatly appreciate all those individuals who have been willing to go forward and try beta versions of the system.

Reactions to key features of EGMS Version 1.0

One popular EGMS feature is its ability to do quick, accurate calculations for budget items including fringe benefits, indirect costs, and inflation. Many faculty members are impressed with these automated functions and the way in which the system eliminates time-consuming work. Professor Bojan Guzina of the Department of Civil Engineering was positive about the new on-line system, especially the budget preparation dimension. "I used EGMS for a NSF proposal," he says. "EGMS's main strength is budget preparation. The way EGMS automatically configures fringe benefit rates and inflation is extremely helpful." "The system is terrific," says Professor Robert Cudec of the Department of Psychology. "The way EGMS anticipates succeeding years is also fantastic. All of the features are integrated and consistently helpful."

Another EGMS feature is the system's use of the most current rates and sponsor requirements. Professor Guzina says that before EGMS, investigators often needed to suffer through multiple levels of review to ensure that the proposal used the correct rates and application requirements. Now reviews are "automatic" with checks and balances built into the system. When the proposal is finalized, EGMS performs an audit to verify that sponsor requirements have been met.

The ability to enter proposal information easily and to transfer it to multiple applications are key aspects of EGMS. Proposal preparers are not just filling out a form, but actually entering information into a database. In addition, they can enter the data by answering questions rather than completing a form. Once the information has been entered, it can be re-used for other proposals or needs. Professor of Psychology Chad J. Marsolek appreciated these features as well as the overall design of the system. "The system is very intuitive. That's a great advantage. It reduces duplication and the ability to import biographical sketches is great."

The sense of being in control of one's own grants is a feature noted by Professor of Surgery William C. England. After an initial introductory period, he found the process of working with EGMS quite favorable. "Compared with the past when one gave the administrative people the responsibilities for support and supplies, with the new system it's

possible to have much greater control and overview of one's grants," he says. He also noted that whenever problems came up, the EGMS helpline was effective. "The help was great. Calls were promptly returned and the help was comprehensible and easy to apply."

As with any new software, users noted problems. Research Associate Marc Loken of Civil Engineering was generally negative about the system. His main complaint, a common one among those who were critical of EGMS, was that the system was inflexible. "I'm an engineer," Loken said, "I want to know how the system is generating its numbers. Here you can only see output. With grants like mine, when the value of the grant is fixed, I had trouble getting the system to come up with the same numbers as my fixed budget grant." He desired some greater flexibility in disabling aspects of the system in preparing proposals with fixed budgets. But he also recognized some of the unique features of the system. "We were able to start and finish an entire proposal in one day starting from mere sketches on scraps of paper. That was never possible before."

Some researchers found the uniform fonts inflexible and wanted to be better able to disable certain functions of the automatic process. Professor of Veterinary Pathology Gerald O'Sullivan had trouble in this regard.

Enhancements being developed for future EGMS versions

EGMS developers are aware of difficulties with uniform fonts and disabling specific functions; some of these will be addressed in subsequent versions of the system. The next release will also include the ability to design cost share budgets and link to NSF FastLane.

Use of EGMS continues to grow

More and more principal investigators are using EGMS and discovering the advantages of increasing control over their own projects, producing multiple proposals, and creating accurate budgets. To date, over 500 people have logged on to the system and at least 225 have initiated a proposal using EGMS. In September and October of this year, University researchers generated 123 proposals either wholly or in part electronically, which represents almost 20 percent of the proposals processed through SPA during that period. As these numbers indicate, it is clear that EGMS Version 1.0 is a success and use of the system will continue to grow.

Prior Approvals

(continued from page 1)

Although departmental staff may assist, PIs must transmit these from their computers in order for their official electronic signatures to appear on the requests.

Attachments: Where additional documentation is necessary for the NIH to properly evaluate the request, transmit the information electronically whenever possible and practical. This information should be either included in the body of the email request or attached in the form of a text-only file. If hard copy attachments will be sent, write at the bottom of the email: "hard copy attachments to follow." As circumstances dictate, the University of Minnesota may choose to transmit the request and supporting documentation for a specific prior approval in hard copy only.

2. Forward the request to the department head.

Department Head or Dean's Office (where applicable):

1. Evaluate and approve e-mail requests transmitted by the principal investigators.

2. Forward approved requests to prior@ortta.umn.edu. SPA staff will distribute the requests to the appropriate grant administrator for review.

At SPA:

The grant administrator will review the request. If SPA staff have questions or suggestions, they will relay them directly to the principal investigator with a copy to the department staff. After review, the grant administrator will forward it to one of four authorized institutional transmitters for final approval. A copy of this final approval will be emailed to the principal investigator.

At the NIH:

When NIH staff receive an e-mail request from UM, they will route it according to their internal procedures. The response and revised Notice of Grant Award (if necessary) will be emailed back to SPA. Their normal response time should be within 30 days of the receipt of the electronic transmission.

{ continued on next page }

Correction

Changes to the *Research Review* Mailing List

There is a need to clarify the article that appeared in the December *Research Review* about changes in the mailing list.

Only the faculty list (assistant professor and above; clinical researchers), maintained by Human Resources, has been amended. The supplemental list, maintained in ORTTA, has *not* changed. If you are on the supplemental list (support staff, etc.) and have been receiving the *Research Review*, you will continue to receive it.

The article also says to contact Human Resources for changes to the faculty list. *This is incorrect. All such changes must be made through your departmental payroll, or human resources coordinator.*

You may differentiate between the faculty and the supplemental list by looking at the numbers over the name. The faculty list will have *both* the departmental mail code and the employee identification number over the name. The supplemental list will *only* have the departmental mail code over the name. If faculty list changes are sent to ORTTA, they will be discarded.

Siehl Prize

The College of Agricultural, Food, and Environmental Sciences at the University of Minnesota is now accepting nominations for the Siehl Prize for Excellence in Agriculture. The Siehl Prize is awarded every two years to three recipients who have made significant contributions to agriculture in each of three broad areas: 1) in production agriculture, to producers whose careers combine progressive technology and innovative farm management skills; 2) in agribusiness, to individuals who have generated, introduced, or applied scientific knowledge to challenges facing production in agriculture; and 3) in academia, to those who, through teaching, outreach, or research at an academic or government agency, have made a profound difference in agriculture.

Each Siehl laureate receives a \$50,000 cash award as well as a sculpture created by renowned sculptor and University professor Thomas Rose. Each nominee must currently reside in Minnesota, or have lived in Minnesota for at least five years, or hold a degree from the University of Minnesota.

Nominations for the 1999 Siehl Prize, together with all credentials, supporting materials, and letters of recommendation, must be received in the office of the College of Agricultural, Food, and Environmental Sciences no later than **March 1, 1999**. The prize will be awarded at the Global Summit on Food in Agriculture in July, 1999.

For more information about the Siehl Prize, contact Dani O'Reilly, Director of Communications, COAFES, 277 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108; 612/624-3235, doreilly@tc.umn.edu. Information is also on the web at <http://www.coafes.umn.edu/showcase/siehl.pdf>.

Content of NIH Prior Approval Requests

This is a reiteration of current practice and does not represent a change to the request content. If all required information outlined below is not provided in the initial request, it may be necessary for NIH staff to request additional information from the University. This could result in a substantial delay of any decision being rendered on the original request.

All Results

In order to be processed efficiently, the PI must put the following information at the top of the request:

- Title of project
- PI name
- Agency number
- CUFS account number
- Grant administrator name
- Name and email address of the NIH grant officer (if possible)

Carryover requests

- Amount of funds requested for carryover
- Provide explanation of why available funds were not used
- Plan for use of carryover funds (attach budget or list items)
- Programmatic justification for why funds are needed for carryover

NOTE: The Financial Status Report must be submitted by Sponsored Financial Reporting before request can be considered by NIH staff

No-cost extension requests

- Period of extension requested
- Estimated balance (direct and indirect) to be available for extension
- If balance is significant (25 percent of the award), provide explanation of why available funds were not used
- Work to be completed during extension period
- Detailed budget for available funds for the extension

Change of scope or research objectives

- Explain and justify the proposed changes
- Indicate any changes in funding and/or categorical reallocations

Change in PI/Key Personnel*

- CV for proposed PI/Key personnel
- Justification
- Other support information

Establish a Consortium*

- Statement of Intent – provide administrative endorsement
- Assurances
- Will there be rebudgeting (explanation)?
- Will there be a change in scope?
- Programmatic justification (need / benefit)
- Provide detailed budget and justification from the proposed consortium
- Other support information for key personnel

Change in key personnel whose expertise is critical to project

- Role of personnel involved
- Decrease of effort (from % & to %) – must be a decrease of more than 25% of proposed effort (e.g., budget reflecting 10% PI effort could not be reduced to 5% without prior approval because it would be a 50% reduction).
- Duration of change
- Decrease of effort - what rebudgeting might occur and its impact on the project
- Justification of need for change and its overall impact on the project

Agency-approved rebudgeting requests, if applicable

- Amount of funds to be rebudgeted
- Budget category funds are moving from
- Budget category funds are moving to
- Will there be a change in scope?
- Programmatic justification for rebudgeting

* Because of the number of attachments required for these approval requests, SPA may choose to transmit the request and supporting documentation in hard copy only.

What's New in Grants Management

an index to changes and announcements

January 1999

(month 7 of UM fiscal 1999)

SPA Update 9916 - NIH prior approval requests to be sent electronically

Notice issued: 1/1/99

Supersedes: na

Effective date: 1/1/99

Change:

Prior approval requests on NIH-sponsored projects must be sent via e-mail to the agency.

Action to take:

See the related article in the January issue of the *Research Review*.

SPA Update 9917 - EGMS Version 1.0 released

Issued: 1/1/99

Supersedes: na

Effective 12/98

Change:

EGMS Version 1.0 has been released. No changes will be made to the system until the next version is released.

Action to take :

See the related article in the January issue of the *Research Review*.

Index to Date

Sponsored Projects Administration (SPA)

- Update 9901:* Generic proposal added to EGMS
- Update 9902:* Changes to manual
- Update 9903:* Additional information required in letter to transfer a project to another institution
- Update 9904:* Revised overview brochure
- Update 9905:* PIs must budget some effort on every proposal
- Update 9906:* What are preaward accounts and preaward costs?
- Update 9907:* SPA staff have part-time office in the AHC RSO
- Update 9908:* Web provides new financial report: The Budget Variance Summary
- Update 9909:* Do pre-proposals have to go through SPA?

- Update 9910:* Payment Vouchers (PV) available for electronic departmental entry
- Update 9911:* Late proposals need your teamwork
- Update 9912:* Revision to Cost Sharing Guidelines and new Cost Sharing Policy
- Update 9913:* New proposal review and processing requirements
- Update 9914:* NIH award notices to arrive electronically
- Update 9915:* On-line purchase request available

Patents and Technology Marketing (PTM)

- Update: 9901:* New PTM brochure
- Update 9902:* New reporting Invention Policy

Institutional Animal Care and Use Committee Animal Use Form Update

The Institutional Animal Care and Use Committee has recently updated the Animal Usage Form (BA-22). The new format will help focus investigators efforts on completing only the sections needed for their studies.

All investigators must complete a core part of the form that gathers administrative information and information essential to all studies such as a description of the model and the study, and justification of animal numbers. There is also a checklist that directs investigators to specific appendices that must be completed for specific types of activities.

Forms are available from the IACUC office in D578 Mayo, or via the web at <http://www.research.umn.edu/subjects/animals/form.htm>. These forms are available in PDF or MS Word formats.

The IACUC would appreciate any feedback on this new format so they can improve the form at future updates.

Getting Certified for Animal Use

The IACUC is frequently asked how to get new investigators and staff certified for animal use at the University of Minnesota.

One method is to have these individuals read Section One of the University of Minnesota Animal Care and Use Manual. This manual is available from the IACUC office in D528 Mayo, or the RAR office in B305 PWB.

The second method for certification is to read the equivalent of the information in the manual that is contained in RAR's web site. A guide to walk through the relevant information is at <http://www.ahc.umn.edu/rar/Introduction.html>, or, if starting at the RAR home page, <http://www.ahc.umn.edu/rar/>. Click on the yellow bar that says "Read Me First – Introduction to Animal Care and Use at the University of Minnesota."

A third method is to contact RAR at 4-9100 or compmed@tc.umn.edu to have a veterinarian give the individuals an animal use orientation seminar.

After any of the above activities have been performed, a certification statement must be signed and submitted to the IACUC. These statements are attached to the Animal Usage Forms, or are available on the RAR web site.

Remember, if there are any questions about animal use at the University, or for help in completing an Animal Usage Form, the IACUC and RAR are ready to help. Call RAR at 4-9100 and IACUC at 6-5654.

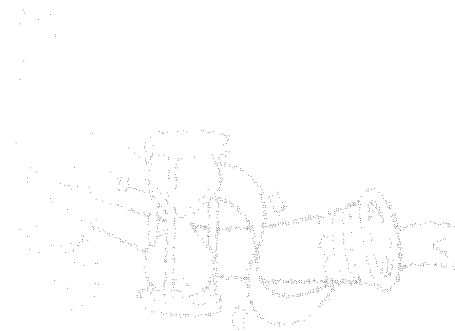
Reprinted from the RAR Newsletter

Clinical Research Program

Clinical research is rapidly becoming more complex, regulated, and sophisticated. A significant problem facing the field of clinical research is the paucity of training programs. The Masters of Science degree (M.S.) program in clinical research was developed to answer that need. The primary object of the program is to create a group of well-trained clinical researchers with skills in the design, implementation, analysis and communication of clinical research studies. The M.S. degree program, which is directed by Stephen P. Glasser, M.D., is administrated through the Division of Epidemiology in the School of Public Health. The program is multi-disciplinary, involving graduate faculty from the following schools of the Academic Health Center:

- Dentistry
- Medicine
- Nursing
- Pharmacy
- Public Health
- Veterinary Medicine

The applicant must have advanced health professional degree such as M.D., D.D.S., D.V.M., Pharm D., Ph.D. (in a clinical biomedical field) or an advanced nursing degree such as nurse practitioner. For more information, contact Ms. Andrea Kish, Graduate Studies Coordinator, Division of Epidemiology, School of Public Health, University of Minnesota, 1300 S. 2nd St., Suite 300, Minneapolis, MN 55454-1015, (612) 626-8802, kish@epi.umn.edu.



Research Subjects Protection Programs IRB: Human Subjects Committee

Clinical Research Using Cloning Technology

Following is the text of a letter from the Food and Drug Administration dated October 26, 1998 which was sent to institutional review boards (IRBs).

Dear Colleague:

The purpose of this letter is to confirm to institutional review boards (IRBs) that the Food and Drug Administration (FDA) has jurisdiction over clinical research using cloning technology to create a human being, and to inform IRBs of the FDA regulatory process that is required before any investigator can proceed with such a clinical investigation. This letter is being sent to IRBs at this time because of reports in the media that scientists are contemplating the use of cloning technology to create human beings. As described more fully below, the appropriate mechanism to pursue a clinical investigation using cloning technology is the submission of an investigational new drug application (IND) to FDA.

Clinical research using cloning technology to create a human being is subject to FDA regulation under the Public Health Service Act and the Federal Food, Drug, and Cosmetic Act. Under these statutes and FDA's implementing regulations, before such research may begin, the sponsor of the research is required to submit to FDA an IND describing the proposed research plan; to obtain authorization from a properly constituted and functioning IRB; and to obtain a commitment from the investigators to obtain informed consent from all human subjects of the research. Such research may proceed only when an IND is in effect. Since FDA believes that there are major unresolved safety questions pertaining to the use of cloning technology to create a human being, until those questions are appropriately addressed in the IND, FDA would not permit any such investigation to proceed.

FDA may prohibit a sponsor from conducting a study proposed in an IND application (often referred to as placing the study on "clinical hold") for a variety of reasons. If the Agency finds that "human subjects are or would be exposed to an unreasonable and significant risk of illness or injury," that would be sufficient reason to put a study on clinical hold. Other reasons listed in the regulations include "the IND does not contain sufficient information required . . . to address the risks to subjects of the proposed studies," or "the clinical investigators . . . are not qualified by reason of their scientific training and experience to conduct the investigation."

The procedures and requirements governing the use of investigational new drugs, including those for the submis-

sion and review of INDs, are set forth in Title 21 of the Code of Federal Regulations (CFR), Part 312. Additional responsibilities of the sponsor of an IND include: selecting qualified investigators and overseeing the conduct of the investigators; ensuring that the investigations are performed in accordance with the protocols of the IND; submitting adverse experience reports and annual reports; and other duties as outlined in the regulations. The responsibilities of an investigator include: ensuring that the study is conducted in accordance with the protocols; obtaining informed consent from study subjects; and ensuring that an IRB that complies with the requirements of 21 CFR Part 56 reviews and approves the proposed clinical study and the informed consent form and procedures for obtaining informed consent, among other requirements specified in the regulations.

IRBs and clinical investigators may obtain a copy of the current "Information Sheets for IRBs and Clinical Investigators" by contacting FDA's Office of Health Affairs (301/827-1685), through the web (<http://www.fda.gov/oha/irb/toc.html>) or through a fax-on-demand system (1/800/993-0098).

We hope the above information is useful to you. Please feel free to share this information with others at your institution.

Sincerely yours,
Stuart L. Nightingale, M.D.
Associate Commissioner for Health Affairs

National Institutes of Health Graduate Student Compensation

The NIH has announced a raise in the maximum amount provided by NIH research grants for the compensation of a graduate student employee from \$23,000 to \$26,000. The amount provided includes salary or wages, fringe benefits, and tuition remission. These guidelines apply to individuals who are employees of the grantee institution, *not* to individuals who are on a training status.

The increase is for competing grant and cooperative agreement awards; no adjustments will be made to noncompeting total cost award levels or future year commitments.

These guidelines are effective immediately. A complete copy of the notice may be found at <http://www.nih.gov/grants/guide/notice-files/not98-168.html>. If you have questions, please call the appropriate NIH grant administrator in SPA.

from: *NIH Guide*, 12/2/98

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

- Lewis, T. Vocational education as general education. *Curriculum Inquiry* 28.3 (Fall 1998): 283-309.
- Lewis, T. Official knowledge and vocationalism: a reply to Michel Apple. *Curriculum Inquiry* 28.3 (Fall 1998): 361-368.
- Lewis, T., Petrina, S., Hill, A.M. Problem posing: adding a creative increment to technological problem solving. *Journal of Industrial Teacher Education* 36.1 (Fall 1998): 5-35.
- Bouchard, T.J., McGue, M., Hur, Y.M., Horn, J.M. A genetic and environmental analysis of the California psychological inventory using adult twins reared apart and together. *European Journal of Personality* 12.5 (Sep.-Oct. 1998): 307-320.
- Peled, E., Edleson, J.L. Predicting children's domestic violence service participation and completion. *Research on Social Work Practice* 8.6 (Nov. 1998): 698-712.
- August, G.J., Braswell, L., Thuras, P. Diagnostic stability of ADHD in a community sample of school-aged children screened for disruptive behavior. *Journal of Abnormal Child Psychology* 26.5 (Oct. 1998): 345-356.
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More Information

To receive copies of NIH and NSF application kits, please call 612/624-0061, gopher@ortta.umn.edu.

For funding searches, please contact the Office of the Vice President for Research, 612/625-7585, facgrant@gold.tc.umn.edu, <http://www.research.umn.edu/research.html>.

Bedding Plants Foundation

The Bedding Plants Foundation is a leading organization for funding research and education in floriculture to improve the production and marketability of plants. In 1998 the foundation increased its funding levels by 30% to provide increased funding for research projects and scholarships.

The following topics are of interest to the foundation: 1) increasing self life/garden performance, 2) economical means for recycling greenhouse waste, 3) water quality/alkalinity control, 4) evaluation/development of biocontrol methods and management techniques, 5) improving production techniques, 6) plug production techniques, 7) perennial production techniques, 8) control of pest problems, 9) control of disease problems.

To be included on the e-mail list to receive notices about future funding opportunities, e-mail the request to BPFI@aol.com. The foundation also has a web site at <http://www.bpfi.org>.

The application deadline for research project proposals is **January 15, 1999**; the deadline for scholarship applications is **May 15, 1999**. For further information call or write William T. Willbrandt, Executive Director, Bedding Plants Foundation, PO Box 27241, Lansing, MI 48909-7241; 517/694-8537, fax 517/694-9561.

Department of Energy Comprehensive Nuclear-Test-Ban Treaty Research and Development Program

The U.S. Department of Energy, Office of Nonproliferation and National Security, is soliciting applications for awards contributing to the mission of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Research and Development Program. The CTBT R&D program mission is to "carry out research and development necessary to provide U.S. government agencies that are responsible for monitoring and/or verifying CTBT compliance, with technologies, algorithms, hardware and software for integrated

systems to detect, locate, identify, and characterize nuclear explosions at the thresholds and confidence levels that meet U.S. requirements in a cost-effective manner."

Awards are anticipated to be funded for 1-3 years and will range from \$100,000 to \$500,000.

Applications may be submitted at any time up to September 30, 1999, however the sooner the better. For further information contact Leslie A. Casey, U.S. Department of Energy, (NN-20), 1000 Independence Avenue SW, Washington, DC 20585-0420; 202/586-2151, fax 202/586-0485.

Applications are to follow the "Guide for the Submission of Unsolicited Applications/Proposals" (DOE/PR-0014) which may be found at <http://www.fetc.doe.gov/business/index.html>. Applications must explain how the proposed work furthers the CTBT R&D program mission, summarized at <http://www.ctbt.rnd.doe.gov/coordination/>, under the heading R&D Issues and Metrics.

Department of Energy Human Genome Program (Notice 99-04)

The Office of Biological and Environmental Research, U.S. Department of Energy (DOE) invites application in support of the DOE Human Genome Program (HGP). This program is a coordinated, multidisciplinary, goal-oriented research effort to obtain a detailed understanding of the human genome at the molecular level.

Topics are: 1) large insert DNA clone libraries and their characterization, 2) chemistries and biochemistries for DNA sequencing, 3) protocols and reagents for full length messenger RNA to cDNA production and sequencing, 4) characterizing exceptional chromosomal regions including those near telomeres and centromeres by sequencing and/or other relevant methodologies, and 5) computational processing of sequence information including viewing, curating, and integrating.

It is anticipated that a total of \$7 million will be available, with individual awards ranging from \$50,000 to \$1 million per year for 2 to 3 years.

DOE encouraged prospective applicants to submit a brief preapplication by December 3, 1998, but there was no indication that this was mandatory. Contact Ms. Joanne Corcoran at joanne.corcoran@oer.doe.gov if you have questions about this.

The deadline for full proposals is **February 23, 1999**. General HGP information may be obtained at http://www.er.doe.gov/production/ober/hug_top.html; or http://www.ornl.gov/TechResources/Human_Genome/home.html.

■ National Science Foundation Enhancing Infrastructure for the Social and Behavioral Sciences

The Directorate for Social, Behavioral, and Economic Sciences (SBE) of the National Science Foundation announces a special focus to increase and improve infrastructure to support the social and behavioral sciences. Proposed projects may fall entirely within one of the following four areas, or a combination of them:

- Collect data from surveys, experiments, or administrative records; case or historical records; or objects of investigation (archaeological items, for example) that will support broad-based investigations into the most important scientific questions facing social and behavioral science in the next decade.
- Create web-based data archiving systems that enable world-wide access to linked databases, and that incorporate innovative capabilities for metadata, file searching, and data confidentiality protection.
- Create web-based collaboratories to enable real-time controlled experimentation, to share the use of expensive experimental equipment, and/or to share widely the process and results of research in progress.
- Establish Center programs to facilitate intensive cross-fertilization of research ideas and projects among selected researchers of diverse backgrounds, disciplines, and interests. Such centers will use innovative measures to encourage collaborative research activity that would not otherwise occur. The centers may be geographically and/or virtually organized.

Proposals may be to establish complete infrastructure projects or to prototype particularly new and risky ideas. Proposals must include specific suggested criteria for evaluation of the project at both intermediate and final stages of the grant.

Four to eight awards at the level of \$500,000 to \$1 million per year will be awarded for up to ten years. Approximately \$3 million will be available in 1999 for all awards.

Proposers are encouraged to submit proposals through FastLane. The due date for submissions is **March 1, 1999**. The entire announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9932>.

■ National Institute on Alcohol Abuse and Alcoholism Prevention of Alcohol-Related Problems Among College Students

The National Institute on Alcohol Abuse and Alcoholism, in cooperation with the Center for Substance Abuse Prevention and the Department of Education, is requesting grant applications to conduct intervention-oriented research that will ultimately lead to the reduction of alcohol-related problems among college students.

The purpose is to encourage research that develops and/or tests interventions that have the potential of preventing or reducing alcohol abuse and associated problems among college students. The prevention strategies may focus on the larger environment in which drinking occurs, or on drinkers as individuals or groups engaged in hazardous drinking behavior. The interventions may include campus or community policies independent of the research endeavor, or in cooperation with a college or university.

Four to eight awards will be made; up to \$3 million in total costs will be available to fund these awards. The mechanism of support is the research project grant (R01) or the interactive research project grant (IRPG).

A letter of intent is requested by **February 23, 1999**; full proposals are due **March 23, 1999**. The announcement may be accessed at <http://www.nih.gov/grants/guide/rfa-files/RFA-AA-99-001.html>.

■ National Alliance for Research on Schizophrenia and Depression Independent Investigator Award.

The National Alliance for Research on Schizophrenia and Depression (NARSAD) Independent Investigator Award is intended to extend initial research training, or to support independent scientists at the level of assistant professor or its equivalent who have won national competitive support as a principal investigators and who propose an innovative and new direction in their research.

Awards are \$50,000 per year for two years. Indirect cost is allowed at 8% (excluding equipment) and *must be included* within the total budget request. Equipment, salary, and technical support are typical budget requests.

Proposals must be *received* by **February 5, 1999**. To obtain a copy of the face-sheet form required by NARSAD, call Brenda Berman, Grants Administrator, 312/641-1666, fax 312/641-3483. Or you may write to her at NARSAD Grants Office, 208 South LaSalle Street, Room 1431, Chicago, IL 60604.

Department of Justice Community Policing Discretionary Grants

The Department of Justice, Office of Community Oriented Policing Services, announces the Visiting Fellowship Program (VFP) designed to support training, technical assistance, research, program development, and policy analysis to contribute to the use and enhancement of community policing to address crime and related problems in communities across the country.

The VFP is intended to offer researchers, policing professionals, community leaders, and policy analysts the opportunity to undertake independent research, problem development activities, and policy analysis designed to advance community policing in a variety of ways through two fellowships: Community Policing Training and Technical Assistance Fellowships; and Program/Policy Support and Evaluation (PPSE) Fellowships.

Community Policing Training and Technical Assistance Fellowships will offer police practitioners and community leaders the opportunity to participate in a community policing training program that is national in scope.

PPSE Fellowships will offer police practitioners, researchers, and policy analysts the opportunity to support innovative community policing programs, to engage in activities to assess the effectiveness of community policing approaches, and to apply policy analysis skills to support the advancement of community policing nationwide.

The application deadline is **March 1, 1999**. To obtain a copy of an application or for more information, call the U.S. Department of Justice Response Center, 202/307-1480 or 1/800/421-6770, or the web site at <http://www.usdoj.gov/cops>.

University of Minnesota Technology Enhanced Learning Small Grants Program

The Office of the Executive Vice President and Provost announces the Technology Enhanced Learning Small Grants Program. The overall goal of the program is to do everything possible to improve the learning experience for Minnesota citizens. The initiative is based on the following operating and framing principles: a focus on learner-centered design; faculty leadership at all levels of the initiative; a commitment to leveraging efforts between units involved in the initiative; a commitment to encouraging innovation rather than rearranging old processes; and a focus on quality, flexibility, efficiency, and accountability.

Eligible applicants are faculty involved in the development and implementation of technology enhanced learning (TEL) initiatives. Grants of up to \$10,000 are available to faculty in all units on all campuses. Funds may be used for relevant materials, equipment, supplies, consultants, research assistance, and the like.

Follow this format:

Cover sheet: List project title, PI, department, college, campus address, phone number, e-mail address, and relevant web site(s). All investigators must sign the cover sheet, and all proposals must be counter-signed by departmental and college authorities.

Background: Provide a characterization of the instructional and/or curricular impact of the project. List the course or courses that will be affected by the project. Include information as to the level, audience, frequency, and typical enrollment of the course(s) involved. Describe the role of the course(s) in the department/college curriculum and its relation to your unit's Compact.

Project description: Describe what you plan to do, what you expect to produce, what makes the project innovative, and what impact you believe it will have on the learning experience of your students.

Evaluation: Indicate how you will measure the effectiveness of your completed project.

Timetable: Specify the project's implementation schedule. Indicate the semester and year in which the project deliverable(s) will become available for student use.

Budget: List the resources required for your project. In one list indicate the expenditures which are to be paid by the TEL small grant. In a second list, indicate the resources to be provided to the project by your department or college. The counter-signature of departmental and college authorities will certify the contribution of these resources.

Applications are due **January 12, 1999**. Send an online copy (two pages maximum; e-mail message or attached file). Questions may be directed to Linda Jorn, Digital Media Center, ljorn@mailbox.mail.umn.edu, 612/626-7320, or Sue Engelman, sengelmann@extension.umn.edu, 612/626-9186.

■ Environmental Protection Agency Investigator-Initiated Grants

The U.S. Environmental Protection Agency (EPA) invites research grant applications in the following areas of special interest:

- 1) integrated assessment of the consequences of climate change
due January 21;
contact Barbara Levinson,
levinson.barbara@epamail.epa.gov;
202/564-6911
- 2) ecological indicators
due February 4, 1999
contact Barbara Levinson (see above)
- 3) regional scale analysis and assessment
due January 21, 1999
contact Barbara Levinson (see above)
- 4) urban air toxics
due February 18, 1999
Contact Deran Pashayan pashayan.deran@epamail.epa.gov
202/564-6913
- 5) mercury: transport and fate through a watershed
due February 4, 1999
Contact Barbara Levinson (see above)
- 6) decision-valuation for environmental policy (in cooperation with NSF)
due February 1, 1999
Contact Alan Carlin
Carlin.alan@epamail.epa.gov
202/260-5732, or
Rachelle Hollander
rholland@nsf.gov
703/306-1743, fax 703/306-0485

For other information contact the U.S. Environmental Protection Agency, National Center for Environmental Research and Quality Assurance (8703R), 401 M Street SW, Washington, DC 20460; 800/490-9194. The complete announcement may be found at <http://www.epa.gov/ncerqa> under "announcements."

■ Minneapolis Medical Research Foundation Center for Addiction and Alternative Medicine Research Trainee Grants

The Center for Addiction and Alternative Medicine Research at Minneapolis Medical Research Foundation (MMRF) is one of nine Centers sponsored by the NIH Office of Alternative Medicine, and the only one focusing specifically on drug abuse. The center is funded to award 3 trainee positions **effective immediately**.

The purpose of these awards is to allow investigators with mainstream scientific training to direct their attention to the methodologically rigorous study and evaluation of alternative medicine approaches to the treatment of drug abuse or diseases related to drug abuse. Trainees need not focus their entire research effort in this area, but alternative medicine must represent a sufficient emphasis to allow them to pursue careers in this area.

The three positions are:

Graduate student (1 position): Two years of support at the standard NIH rate. Students must be currently enrolled in a graduate training program in an appropriate research discipline such as, but not limited to, pharmacology or psychology and making satisfactory progress toward their degree. Mentors may be faculty at MMRF or the University of Minnesota.

Postdoctoral trainee (1 position): Two years of support at the standard NIH rate. Trainees may have either Ph.D. or M.D. degrees, but the purpose of the award is research training. Clinical work may be allowed, but only insofar as it supports the research training objective.

Junior faculty (1 position): Two years of partial support is available to existing full time MMRF or University faculty at the assistant professor level. Awardees must devote time and effort to alternative medicine research commensurate with their level of support. Applicants should identify a mentor at MMRF or the University who can assist in evaluation their progress.

Applicants should send a CV, cover letter describing their career objectives, and a letter of support from their proposed mentor to Thomas Kiresuk, Ph.D., Director, Center for Addiction and Alternative Medicine Research, 914 South Eighth Street, Suite D-917, Minneapolis, MN 55404; 612/347-7670, fax 612/347-7669.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at ORTTA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
November 1998	366	\$ 56,079,915
Awards Processed		
November 1998	206	25,789,463
Proposals Submitted		
July 1998 - November 1998	1,604	317,492,958
Awards Processed		
July 1998 - November 1998	1,415	151,519,964
Proposals Submitted		
July 1997 - November 1997	1,553	289,388,241
Awards Processed		
July 1997 - November 1997	1,346	153,524,098

Mechanisms of Nerve Growth Cone Turning and Branching

Paul C. Letourneau, Cell Biology & Neuroanatomy
Department of Health and Human Services
\$36,953 - 9/30/98-9/29/99

Great Lakes Regional Center for AIDS Research

Ashley T. Haase, Microbiology
Northwestern University
\$164,596 - 9/1/98-8/31/99

Efficacy Studies of Chemopreventive Agents in Animal Models

Lee W. Wattenberg, Laboratory Medicine & Pathology
Richard D. Estensen, Laboratory Medicine & Pathology
Daniel P. Romero, Pharmacology
NIH, NCI
\$461,003 - 6/30/98-6/29/00

Control of Thyroid Hormone Action in the Immature Oligodendrocyte

Cary Mariash, Medicine
American Thyroid Association
\$22,075 - 7/15/98-7/14/99

Open-Label Extension Study of Recombinant Human Nerve Growth Factor (rhNGF) in Treatment of Subjects with Diabetic Neuropathy

Gareth Parry, Neurology
Pratul Kelkar, Neurology
Genentech, Inc.
\$22,800 - 5/1/98-3/31/02

Children with Special Health Care Needs & Their Families

Theora Dodd-Evans, Pediatrics
HRSA, Maternal and Child Health
\$24,987 - 9/30/98-9/29/99

The Effect of Exogenous Insulin on Protein Metabolism in Extremely Low Birth Weight Infants

Antoinett Moran, Pediatrics
Minnesota Medical Foundation
\$12,500 - 11/1/98-10/31/99

System Markers of Inflammation in Children with Cystic Fibrosis, Aged 6-10

Warren E. Regelman, Pediatrics
University of Colorado
\$700 - 7/14/98-7/13/00

Human Islet Processing and Distribution Initiative

Bernhard J. Hering, Surgery
David E. Sutherland, Surgery
University of Miami
\$36,168 - 12/1/97-11/30/98

Hyperacute Rejection in Pulmonary Xenotransplantation

R. M. Bolman, Surgery
David M. Kulick, Surgery
Minnesota Medical Foundation
\$10,000 - 11/1/98-10/31/99

Interferon-alpha for the Treatment of Sjogren's Syndrome

Nelson L. Rhodus, Oral Medicine
Veldona USA
\$88,647.00 - 12/15/98-9/30/99

Minnesota Health Care Insurance and Access Survey 1999

Kathleen T. Call, Sociology
Blue Cross and Blue Shield of Minnesota
\$298,370 - 9/8/98-12/31/99

Improving Participation in Worksite Smoking Programs

Robert W. Jeffery, Epidemiology
NIH, NHLBI
\$629,469 - 5/15/98-4/30/99

A Community-Based Evaluation of Drug Abuse Resistance Education (DARE) and DARE Plus

Cheryl L. Perry, Epidemiology
NIH, NIDA
\$593,826 - 9/5/98-8/31/99

A Population-Based Survey of Torture and Violence

Alan R. Lifson, Epidemiology
NIH, NIMH
\$388,315 - 9/30/98-5/31/99

Alcohol Risk Management II

Alexander C. Wagenaar, Epidemiology
Robert Wood Johnson Foundation
\$350,000 - 9/1/98-8/31/99

Minnesota Senior Health Options Population Assessment

Robert L. Kane, Health Services Research & Policy
St. of Minn., Department of Human Services
\$90,000 - 6/24/98-6/1/99

Education and Medical Care of Type II Diabetes: A Pharmacist-Lead Team Approach in a Rural Minnesota Community

Don Uden, Experimental & Clinical Pharmacology
Todd Lemke, Pharmacy
American Association of Colleges of Pharmacy
\$6,000 - 7/1/98-6/30/99

Solid-State Characterization of Hydrosolve

David J. Grant, Pharmaceutics Research
EM Industries Inc.
\$60,092 - 6/19/98-5/31/99

A Glider Swing Intervention in Persons with Dementia

Mariah Snyder, Nursing
Minnesota Nurses Association Foundation
\$5,000 - 10/1/98-9/30/99

Production of a Mycoplasma Hypopneumoniae Mutant with the Potential of Being Used as a Live Vaccine

Carlos Pijoan, Clinical and Population Sciences
Maria Calsamiglia, Clinical and Population Sciences
Avimex Company
\$40,000 - 6/1/98-5/31/00

Simulation and Modeling of Fluid Turbulence

Paul R. Woodward, Astronomy
 David Porter, Astronomy
 Lawrence Livermore National Laboratory
 \$99,999 - 10/1/98-9/30/99

Technical and Scientific Support for the Data Analysis of the Eta Carina Observations

Kris Davidson, Astronomy
 Kazunori Ishibashi, Astronomy
 National Aeronautics and Space Administration
 \$6,166 - 6/1/98-1/15/99

Tissue Engineering Using Peptide-Aphiphile Biomimetics

Matthew V. Tirrell, Chemical Engineering & Materials Science
 Florida Atlantic University
 \$53,534 - 7/15/98-6/30/99

Mechanical Behavior Analysis of Styrene/Acrylate Coatings

William W. Gerberich, Chemical Engineering & Materials Science
 Sandia National Laboratories
 \$10,000 - 7/6/98-1/31/99

Organic Electrochemistry

Larry L. Miller, Chemistry
 National Science Foundation
 \$85,000 - 9/15/98-12/31/98

Predicting One-Electron Reduction Potentials

Christoph J. Cramer, Chemistry
 Donald G. Truhlar, Chemistry
 Environmental Protection Agency
 \$23,800 - 9/22/98-9/30/99

Advanced Technology for Demilitarization of Plastic Bond

Marc A. Hillmyer, Chemistry
 Gradient Technology
 \$22,000 - 7/1/98-6/30/99

An Investigation of New Approaches to Survivability

Mats Heimdahl, Computer Science
 University Of Washington
 \$68,500 - 6/8/98-6/7/99

Lateral Epitaxial Growth of GaN

Philip I. Cohen, Electrical Engineering
 Silver Sky Technologies, Inc.
 \$27,334 - 6/11/98-12/1/98

Collaborative Research: Salinity of Groundwaters in Continental Sedimentary Basins as a Record of Quaternary Paleoclimatic Conditions

Mark Person, Geology & Geophysics
 National Science Foundation
 \$57,925 - 10/1/98-9/30/99

Holocene Paleoenvironmental Change Along the Antarctic Peninsula: A Test of the Solar/BI-Polar Signal

Subir K. Banerjee, Geology and Geophysics
 Stephanie Brachfeld, Geology and Geophysics
 National Science Foundation
 \$50,894 - 7/97-7/99

Environmental Magnetism of the West African Margin

Subir K. Banerjee, Geology and Geophysics
 Peat Solheid, Geology and Geophysics
 Joint Oceanographic Institute
 \$11,840 - 12/97-8/99

Santa Fe IV Conference: Paleorecords of Geodynamo and Climate Change

Subir K. Banerjee, Geology and Geophysics
 National Science Foundation
 \$15,700 - 6/1/98-5/31/99

Magnetic Studies of Lake Sediments: Climate Variability in Alaska During the Last 14,000 Years

Subir K. Banerjee, Geology and Geophysics
 National Science Foundation
 \$127,560 - 10/1/98-9/30/00

Diesel Aerosol Sampling Methodology

David B. Kittelson, Mechanical Engineering
 Winthrop F. Watts, Mechanical Engineering
 Coordinating Research Council
 \$1,509,752 - 9/21/98-9/20/00

Measurements in Transitional Boundary Layers

Terrence W. Simon, Mechanical Engineering
 National Aeronautics and Space Administration
 \$67,762 - 10/28/98-10/27/99

Continuous Monitor for Particle Surface Area

David Y. Pui, Mechanical Engineering
 Da-Ren Chen, Mechanical Engineering
 Environmental Protection Agency
 \$24,800 - 9/14/98-4/30/99

Engineering of a Solid Scintillator Neutrino Detector

Keith Ruddick, Physics & Astronomy
 Thomas R. Chase, Mechanical Engineering
 Fermi National Accelerator Laboratory
 \$113,812 - 10/1/97-9/30/99

A 3-Dimensional Simulation of the Kelvin-Helmholtz Instability with a Magnetic Shear

Robert Lysak, Physics & Astronomy
 Kristi Keller, Physics & Astronomy
 National Aeronautics and Space Administration
 \$22,000 - 7/1/98-6/30/99

Mass Spectrometry for Biological Sciences

Gary L. Nelsestuen, Biochemistry (CBS)
 National Science Foundation
 \$349,370 - 8/1/98-7/31/00

Land Management in Mugu District, Nepal: Power, Cultural Practices and Ecological Processes

Andrea J. Nightingale, Geography
 U.S. Department Of Education
 \$18,412 - 7/1/98-12/31/99

Intensity of Extreme Rainfall Over Minnesota

Richard H. Skaggs, Geography
 St. of Minn., Department of Transportation
 \$8,870 - 4/6/98-11/30/98

Public Use Microdata Sample of the 1900 Census

Steven Ruggles, History
 Russell R. Menard, History
 NIH, NICHD
 \$353,610 - 7/6/98-5/31/99

The Angelican Mission of Santo Agostinho-Maciene 1926/8-1974

Alda Rome Saute, History
 Allen F. Isaacman, History
 Rockefeller Foundation
 \$18,530 - 9/1/98-8/31/99

Twin/Family Study of Vulnerability to Substance Abuse

William G. Iacono, Psychology
 Matt McGue, Psychology
 David T. Lykken, Psychiatry
 NIH, NIDA
 \$595,750 - 9/1/98-8/31/99

Minnesota Ideals

Amy Theisen, Bell Museum of Natural History
St. of Minn., Department of Children, Families, & Learning
\$1,000,000 - 7/1/97-6/30/99

New Strategies for Synthesis of Biodegradable Plastics in Plants

David A. Somers, Agronomy & Plant Genetics
Friedrich Srienc, Biological Process Technical Institute
Purdue University
\$160,000 - 10/1/98-9/30/00

Marker Selection of Yield: Evaluation of Yield Genes

James H. Orf, Agronomy & Plant Genetics
United Soybean Board
\$105,639 - 10/1/98-9/30/99

Clinical Evaluation of Feeding Dairy Replacement Heifers

Brian Crooker, Animal Science
Hugh Chester-Jones, Southern Ag. Experiment Station, Waseca
Monsanto Company
\$201,450 - 6/29/98-7/31/01

Apple Cider Pasteurization Alternatives

Bill Schafer, Food Science & Nutrition (COAFES)
St. of Minn., Department of Agriculture
\$50,000 - 7/21/98-6/30/99

Integrated Soil Management for Control of Root Rot in Forest Nurseries: A Systems Approach

Francis L. Pflieger, Plant Pathology
Joseph G. O'Brien, Plant Pathology
U.S. Department of Agriculture
\$29,500 - 9/18/98-9/30/99

Technical Issues for Residential Ventilation Standards

David Grimsrud, Graduate School
U.S. Department of Energy
\$27,119 - 5/21/98-5/20/99

Development of Laboratory Equipment and Computer Model for Thorough Air Drying

Shri Ramaswamy, Wood & Paper Science
Fort James Corporation
\$154,453 - 10/4/98-9/30/00

State Environmental and Forest Resource Agency Involvement

Paul V. Ellefson, Forest Resources
U.S. Department of Agriculture
\$35,000 - 8/1/98-7/31/99

Evaluation of Energy Assets

Lance Lavine, MN Building Research Center
David Grimsrud, Graduate School
Northern States Power Company
\$45,288 - 7/1/98-4/30/99

American Indian Use of National Forests

Leo H. McAvoy Jr, Kinesiology and Leisure Studies
U.S. Department of Agriculture
\$64,058 - 8/26/98-12/31/02

Information on the Acceptability of Irradiated Beef

Zata Vickers, Food Science & Nutrition (CHE)
Minnesota Beef Council
\$19,481 - 10/1/98-9/30/99

World Wide Web Site for Criminal Justice Professionals

Jeffrey Edleson, Social Work
U.S. Department of Justice
\$291,680 - 9/1/97-3/31/00

Kid's Capacity Initiative Evaluation

Linda Jones, Social Work
Family Alternatives
\$30,000 - 9/1/98-8/31/99

Evaluation of the Effectiveness of Metro GIS

William J. Craig, Center for Urban & Regional Affairs
USDI, Geological Survey
\$38,062 - 9/1/98-8/31/99

Fiscal Year 1999 National Program Production and Acquisition

Andrew J. Marlow, University College
Corporation for Public Broadcasting
\$25,526 - 10/1/98-9/30/00

Habitat Health Services

Barbara A. Elliott, Medicine, Duluth
Northland Foundation
\$17,307 - 9/1/97-12/31/98

Densified Peat Products

Timothy S. Hagen, Natural Resources Research Institute, Duluth
Thomas Malterer, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$79,300 - 7/1/98-6/30/99

Technology Transfer of Framesaw Manufacturing Methods

Patrick K. Donahue, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$44,500 - 7/1/98-6/30/99

Pre-Classification of Flotation Feed

Chuying Wu, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$31,708 - 7/1/98-6/30/99

Enhancement of Forest Productivity and Quality

William Berguson, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$30,760 - 7/1/98-6/30/99

Digital Mine Model and Statistical Evaluation

Lawrence M. Zanko, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$29,000 - 7/1/98-6/30/99

Idea Evaluation or Seed Research Money

Michael Lalich, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$179,154 - 7/1/97-6/30/99

Clean Water Partnership Management

Howard Mooers, Geology & Geophysics
St. of Minn., Department of Health
\$29,120 - 10/1/98-6/30/00

Michael Chandler: Landscape & States of Nature

Martin D. DeWitt, Tweed Museum Of Art, Duluth
Arrowhead Regional Arts Council
\$5,000 - 11/1/98-4/30/99

Effects of Natural and Anthropogenic Processes on Tillamook Bay and its Watershed

James McManus, Large Lakes Observatory, Duluth
Oregon State University
\$56,377 - 10/1/98-9/30/00

Geochemical Consequences of Extensive Gas Hydrate Formation

James McManus, Large Lakes Observatory, Duluth
Oregon State University
\$19,808 - 11/1/98-3/31/99

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RESEARCH REVIEW

Office of Research and Technology Transfer

February 1999

Lowered Tuition Fringe Benefit Rates and Raised Graduate Assistant Stipend Band Announced

In early June, the need to increase graduate assistant stipends at the University of Minnesota was brought acutely into focus by a report prepared by the Office of Planning and Analysis that indicated that Minnesota stipends were slipping with respect to those of the public Big Ten institutions. The ability of the University of Minnesota to compete for the best graduate students is based, in part, on principal investigators and departments being able to offer competitive packages to potential graduate assistants. Vice president and dean, Christine Maziar, presented the issue to the Board of Regents at their October meeting. Through numerous discussions with faculty groups and the Council of Graduate Students (COGS), the Graduate School determined that the most effective means for positively impacting graduate assistant stipends, while holding the total cost to support a student at a fixed level, is to reduce the fringe benefit costs to departments and research contracts while encouraging those savings to be passed along to graduate assistants in the form of higher stipends. While an appropriate mechanism was identified, the source of funding the reduced fringe benefit charges was not.

The answer to the dilemma was found in the tuition fringe benefit pool. The 1997-98 method of assessing fringe benefits exactly matched the initial hourly fringe rate to the hourly tuition benefit the graduate assistant earned. However, as the books in 1997-98 were closed, it was learned that the pattern of student appointments and course registration had produced a \$2.56 million surplus in the fringe benefit pool. It is anticipated that a similar surplus will be developed for 1998-99.

As a result of the surplus, Accounting Services developed new fringe benefit rates for graduate research and teaching assistants. Preliminary rates are available on ORTTA's website at <http://www.ortta.umn.edu/spa/rates/fringe.htm>.

With a source of funding to lower the fringe benefit rates identified, the Graduate School worked with the Office of

Human Resources to implement a new floor and a new ceiling for graduate assistant stipends. These new rates were announced in a memo to deans, directors, and department heads on January 8, 1999. A copy of the memo is also available on ORTTA's website. The new floor rate, effective July 1, 1999, will be increased from \$11.31/hour to \$12.37/hour and the new cap is raised from \$15.78/hour to \$18.94/hour. The basic hourly tuition fringe rate will fall from the current \$6.59/hour to \$5.13/hour.

The surpluses developed in the tuition benefit pool during the period 1997-99 will fund the reduced fringe benefit rate during the 1999-2001 period. In order to avoid a rapid increase in tuition fringe benefit costs in 2001, with the consequent negative impact on graduate and research programs, it is anticipated that the tuition benefit pool will be centrally subsidized. This significant improvement in graduate assistant stipend rates, while holding the cost of supporting a graduate student nearly constant, is a first and important step towards restoring the University of Minnesota's ability to compete for the very best graduate students.

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MKC
9/2/99

Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612.624.5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612.626.9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 8

February 1999

Editor: Melinda Sewell (acting)
 Editorial Assistant: Tove Jespersen
 Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Melinda Sewell, 612.624.1059, mel@ortta.umn.edu, or Tove Jespersen 612.624.0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When developing budgets for proposals, please use the following rates.

Graduate and Professional Student Assistants

New provisional rates effective Fall, 1999

TA, RA, AF: standard	\$5.13/hr + 7.6%	of gross salary
TA, RA, AF: advanced master's or Ph.D.	\$.93/hr + 7.6%	
Summer quarter TA, RA, AF	—	7.6%
Summer session TA, with tuition	\$9.68/hr + 7.6%	
Summer session TA, without tuition	—	7.6%
Professional program assistant	—	7.6%
Dental fellow *	\$3.35/hr	—
Medical fellow *	\$2.57/hr	—

To the rates listed above, add 7.7% to the 7.6% when a graduate student is enrolled for fewer than 3 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental or medical fellows, or medical fellow specialists. **This is a change from previous years.**

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612.625.7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	27.6%	27.5%	14.2%
7/1/00 - 6/30/01	27.9%	27.4%	14.3%

Fringe benefit rates are determined by the University's Office of Budget and Finance; call Vivian Fickling, 612.624.2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Melinda Sewell, acting editor at 612.624.1059, mel@ortta.umn.edu.

Financial FormsNirvana a Success

The Grants Management Project is making it easier for principal investigators and administrators to obtain accurate and timely information about the sponsored projects they manage. *Financial FormsNirvana*, the electronic system used to process financial transactions at the University, is a crucial tool in this development. It is one of the first large-scale interactive web applications running over the University's complex network. More and more documents are being added to *Financial FormsNirvana* and more departments are being trained to use the system. As this process gains pace, *Financial FormsNirvana* users are beginning to voice their opinions about the changes underway. A number of users were reached by telephone and questioned about their experiences with the new system. Almost without exception the responses have ranged from favorable to wildly enthusiastic.

John Peterson of Epidemiology was overwhelmingly positive to *Financial FormsNirvana*. "We have been doing payment vouchers (PVs) for a while now and we just started doing intra-institutional vouchers (IVs) a month ago. Epidemiology does thousands of billings and we use the system templates to generate new documents. We do a hundred cost transfers (IVs) a month and several hundred payment vouchers. At the moment we are doing payroll expense transfers (38s), non-sponsored cost transfers (IXs), intra-institutional vouchers (Ivs), purchase orders (POTs), and payment vouchers (Pvs) with *Financial FormsNirvana*. We plan to decentralize our departmental operations by having secretaries use *Financial FormsNirvana*." Right now, only accountants are using the system but Epidemiology plans to get the secretaries involved soon. "We have been using *Financial FormsNirvana* for nearly eight months now," Peterson said. "We were in the pilot PV project. When you have documents that might be at one of several locations at any one time, the ability to know where they are is great. The system's tracking function is also a great asset." Peterson's only reservations were an impatience to see all of the system implemented as soon as possible. "We're anxious to get everything rolled out." Mr. Peterson added that developers need to make some modifications to the printing functions. But his general impression was very positive. "All the bugs will get worked out and everything will be fine."

Julie Slapp, Senior Accountant in Psychology says "*Financial FormsNirvana* is great. I love it and everything about it. The information you enter is immediately posted to CUFS which is a great advantage. In addition, *Financial FormsNirvana* is reducing the workload which is another clear benefit. *Financial FormsNirvana* is great for doing payroll 38s as well." She mentions that while the system was initially slow, those problems have been addressed.

She did express a concern about the level of computing power required to run the all the systems coming on board at the University. She added, however, "We need to get the computers anyway."

Kathy Kirby, Accountant in Medicine, is mostly impressed with the new systems. She noted, however, that the searching functions needed attention. "If searches could be made easier, that would be a needed improvement." She noted some problems with the password system, particularly when the department wants to have students do entry work. "The password system is really cumbersome. They need to make it easier to work with." Ms Kirby also raised the issue of the current "in-between" state of the University's system reforms. "Some people are still using paper. Things will improve when everyone is on board."

Julie Zolinsky, Effort Coordinator in Medicine, is also pleased with the new developments. "*Financial FormsNirvana* is really a great tool," she says. Her only reservations were similar to those of a number of other respondents, namely, a concern about the need for higher powered computers to meet the increasing number of tasks being done on-line.

Many interviewees appreciated the way their opinions and experiences have been welcomed. Bev Teslow, Senior Accountant in the School of Public Health, noted this aspect of the ongoing University wide system improvements. She was enthusiastic about *Financial Forms Nirvana* and the way it has developed. "Since day one, *Financial FormsNirvana* has continuously improved. The system features are great. The time it takes for approvals is shortened and the regular tally of all the documents is another great feature." Another positive aspect of *Financial FormsNirvana* is the way it allows you to know where documents are at any particular time. "When you're dealing with paper documents you always wonder 'Where are they,' she says. 'With *Financial Forms Nirvana* you know where the documents are.'" She expressed a desire to add a number of improvements. "We'd like to be able to do travel arrangements on the system. That would be an immense advantage. Adding an archive would also be a great improvement."

Darleen Joyce, Associate Director for Administration in the Center for Interfacial Engineering was excited by the new developments. "We just came aboard last week and we're impressed. The prospect of moving documents rapidly, improving security, working smart and getting more done is attractive."

Ms. Joyce did express some concerns about the speed of change and the amount of training time needed in order to

(continued on page 9)

EGMS Question and Answer

Question:

I have tried inputting my publications into the electronic grants management system (EGMS) and have noticed that there does not seem to be a way to include subscripts and Greek letters in the citation. Is this really the case? If so, is anything going to be done to correct this deficiency?

Answer:

I am sorry that right now we do not support Greek and sub/superscripts. This is on our list of problems that need to be resolved as soon as possible, but we do not have a good solution at the moment. David Hamilton and the rest of the EGMS project team have made it abundantly clear that users want Greek and sub/superscripts, and because I have a degree in chemistry, I really do sympathize.

In our defense, let me point out that this is not a trivial problem to solve. As we analyzed the problem, we realized that at a minimum, math and Greek symbols are needed. The ideal situation would be to support arbitrary glyphs, because there are many subject matter specific symbols that would be nice to have. Our first goal is to get math and Greek symbols working, since this is a common need, and get this function into the publications and proposal abstract parts of EGMS.

Besides the problem of how to let you efficiently enter Greek letters and other glyphs via an HTML page, we also have the problem of how to electronically submit this info

to the grant agencies. Multiple fonts and non-ASCII glyphs are issues that everyone is trying to deal with right now, and the grant agencies have not really settled on a format for us to represent these glyphs as we move to electronic submission of proposals. So there are a couple facets to the problem:

- 1) How you enter the glyphs via an HTML page
- 2) How we store them internally
- 3) How we hand them electronically to grant agencies
- 4) How we can print them on paper forms for the grant agencies

We believe we have a solution for problems 2 and 4, so if we can get non-ASCII glyphs into the system we can print them or generate PDF documents. We still need to solve the first problem before we can release even a partial fix. We also really need some direction from the grant agencies on what they will accept in electronic format because that influences how we will store the information in EGMS.

My team is working on all this, and because we recently got the release 1.0 of the EGMS grant proposal preparation software into production, we can concentrate on this more over the next few months. I will be one happy dude when you can finally refer to beta-carotene using a beta symbol in EGMS, and have that beta symbol go all the way to the NIH or NSF either on paper or electronically.

by Mark McCahill

NSF Applicants

Please Note

If National Science Foundation proposals are not submitted through FastLane, they *must be submitted* on the current NSF forms which are included in the Grant Proposal Guide NSF 99-2, dated October 1998 (replacing NSF 98-2).

If you fail to use the proper forms, it is possible that your proposal could be turned down or that you could be *requested to resubmit the full proposal* using the appropriate NSF forms.

Current NSF forms may be accessed through EGMS at <http://www.ortta.umn.edu> or from NSF at <http://www.nsf.gov/pubsys/index.htm>. ORTTA also has a limited number of hard copies; call 612.624.0061.

Research Subjects Protection Program

Accreditation

Following a rigorous inspection and review this past year, the University's animal care and use program received continued full accreditation from the Association for the Assessment and Accreditation of Laboratory Animal Care, International (AAALAC).

This accreditation demonstrates the University's ongoing commitment to excellence in our programs that use animals to advance science when there are no non-animal alternatives. It further demonstrates that the University's program meets or exceeds all national standards for animal welfare. The University is proud of its high standards for the use of animals on research, teaching, and service and we are serious about continuing to exhibit those ideals as long as science requires the involvement of animals. We are actively seeking alternatives to each use of animals and continue to strive for the most humane and responsible treatment of all animals under our care.

As an external measure of our accountability, the AAALAC accreditation further exemplifies that commitment. For the first time, the accredited unit includes the College of Veterinary Medicine; Duluth and Hormel campuses are also fully accredited as separate units. Those units also achieved full reaccreditation during this past year.

We achieved this important goal through the hard work and dedication of many people at the University. I would like to thank the staff of Research Animal Resources, laboratory technicians, and animal care workers, the staff and faculty of the College of Veterinary Medicine, the members of the Institutional Animal Care and Use Committee, and the staff of the Research Subjects Protection Programs for their unflinching support of our animal care program.

For more information about our animal program, check out the RSPP web site at <http://www.research.umn.edu/subjects.htm> and connect to the RAR site and other related local and international sites.

Richard W. Bianco, Institutional Official
Animal Care Program

Chemical Waste Program

The University of Minnesota Chemical Waste Program has established a chemical and labware redistribution program. The program accepts chemicals and labware in good condition from various University laboratories. In turn, they are redistributed through the University system free of charge on a first-come, first-serve basis. For more information call 612-626-1859 or see Free Chemicals on their web site at www.dehs.umn.edu.

You may also dispose of unidentified/unlabeled chemicals. An amnesty period is currently in effect. For requests received until June 30, 1999, chemicals will be tested (and labeled) at no cost (\$35 per item after amnesty period). Request forms are available at www.dehs.umn.edu/guidebook/appendix2.html. For more information call 612.624.6060 or see Unidentified Chemical Objects on their web site at www.dehs.umn.edu.

Confidentiality of Research Data

The Omnibus spending bill passed by Congress in October includes language requiring federal agencies to ensure that all data produced under research grants "be made available to the public through the procedures established under the Freedom of Information Act." Federal relations director Tom Etten told the Faculty Consultative Committee (FCC) January 7 that the language was "hidden away in a 4,000 page bill," and "now we have a mess on our hands." Faculty members across the country are saying the law would impede their ability to do research.

Inability of researchers to guarantee confidentiality of data is one major concern. "This would wipe out my discipline," said anthropology professor Stephen Gudeman. Researchers could not get into any country if confidentiality could not be assured. Others talked about how research in this country would be blocked.

Immediate focus is on the Office of Management and Budget (OMB), which may modify the language after a 60-day period for comment. Etten encouraged faculty to send comments about "where you think your research would be vulnerable." Nils Hasselmo, president of the Association of American Universities, has written to OMB director Jacob Lew. At the U, the Research Committee passed a resolution opposing the law and will take it to the U Senate in February. Etten said it would be good to "inundate" the OMB with expressions of concern.

Long term goal is to get the law repealed. Etten said he will work to get every member of the House from Minnesota to cosign the bill to rescind the law. "This is crummy way to start a congressional session," Etten said, but "here's the fire and it has to be put out."

by Maureen Smith, editor
University of Minnesota *Brief*

Technology Transfer Agreements

October 1998 through December 1998

Title: **Method and Apparatus for Implementing Maximum Transition Run Codes**
Purpose: Apparatus and method for coding to improve the minimum distance properties of sequence detectors operating at high densities in storage systems.
Inventors: Barrett Brickner, Jaekyun Moon, Electrical and Computer Engineering
Licensee: Marvell Semiconductor, Inc. Nonexclusive License Agreement

Title: **Maxi-Mums: Shrub Garden Chrysanthemums**
Purpose: A massive, perennial, winter-hardy, shrub-like chrysanthemum.
Inventors: Neil Anderson, Peter Ascher, Horticultural Science
Licensees: C and M Floral Nonexclusive Plant Patent and Trademark Agreement
Spruce Up nursery Nonexclusive Plant Patent and Trademark Agreement
Spring Hill Nurseries Co. Nonexclusive Plant Patent and Trademark Agreement

Title: **Apple Tree Called MN 1824 ("Zesta!"/Minnewashta**
Purpose: An apple tree with vigorous growth in early years, and little winter injury, with annual fruit production having a well-balanced flavor, crisp and juicy texture, and pleasing exterior color and pattern.
Inventors: David Bedford, James J. Luby, Horticultural Science
Licensees: Adams County Nursery Nonexclusive Plant patent and Trademark Agreement
Bailey Nurseries, Inc. Nonexclusive Plant Patent and Trademark Agreement
Baker West, Inc. Nonexclusive Plant Patent and Trademark Agreement
Cameron Nursery, LP Nonexclusive Plant Patent and Trademark Agreement
Hilltop Nurseries, LLC Nonexclusive Plant Patent and Trademark Agreement
Willow Drive Nursery, Inc. Nonexclusive Plant Patent and Trademark Agreement

Title: **High Intensity Ultraviolet Source for Optical Instruments and Method for Light Generating Using the Same**
Purpose: Method for generating high intensity ultraviolet light to be used as a light source for absorbance or fluorescent analysis and for generating light in other spectral ranges.
Inventors: Robert Carlson, UMD Chemistry; Christopher J. Owen, Eugene G. Tokhtuev, UMD Natural Resources Research Institute
Licensee: Apprise Technologies, Inc. Research Agreement with Option Rights

Title: **Total Synthesis of Phorboxazole A and Related Cytostatic Agents**
Purpose: A synthetic method to produce phorboxazole A, a naturally occurring product that has cytostatic activity towards human cancer cells.
Inventors: Feryan Ahmed, Russell Cink, Craig Forsyth, Chi Sing Lee, Chemistry
Licensee: Hughes Institute Exclusive License Agreement

Title: **Vapor Sensing Light Emitting Device**
Title: **A Vapochromic Photodiode**
Purpose: This vapachromic LED emits different wavelengths of light when challenged with different chemicals, such as acetone.
Inventors: Yoshihito Kunugi, Kent R. Mann, Larry L. Miller, Marie Pomije, Chemistry
Licensee: California Molecular Electronics Corp. Exclusive Option Agreement

Title: **Covalent Attachment of Organic Molecules to Silicon Surfaces**
Purpose: A new technique for assembling organic molecules on silicon surfaces.
Inventor: Xiaoyang Zhu, Chemistry
Licensee: Gene Logic, Inc. Exclusive Option Agreement

Title: **Residency Evaluation and Survey**
Purpose: A web-based program to automate the process by which agencies gather information on residency programs, and evaluate its instructors and residents.
Inventor: Marcie A. Glisan, Medicine
Licensee: Advanced Informatics, LLC Exclusive Copyright License Agreement

Title: Discriminatory Substrates for MMP Hydrolysis
Purpose: A method of screening a sample for the presence of a matrix metalloproteinase employing discriminatory peptide substrates.
Inventors: Gregg B. Fields, Laboratory Medicine and Pathology; Nideaki Nagase, non-U
Licensee: Peptides International, Inc. Nonexclusive License Agreement

Patents Issued October 1998 through December 1998

Title: Hexahydrolupulones Useful as Anticancer Agents
Purpose: Provides pharmaceutical compositions effective to inhibit cancer cell and/or bacterial cell growth and methods for their use.
Inventors: Emily O. Ngo, Louise M. Nutter, Gilbert J. Mannering,
Thomas E. Stephan, Pharmacology

Title: Methods of Screening for Agents Affecting the Deposition of Beta-amyloid Peptides on Amyloid Plaques in Human Tissue
Purpose: Provides labelled peptides and methods of using them to screen for agents in tissue samples evidencing the presence of Alzheimer's Amyloidosis.
Inventors: Patrick W. Mantyh, Preventive Sciences; John E. Maggio, non-U

Title: Culture of Swine Infertility and Respiratory Syndrome Virus in Simian Cells
Purpose: A vaccine and sera for diagnosing and treating Mystery Swine Disease (MSD).
Inventors: James Collins, Veterinary Diagnostic Medicine; David Benfield, Dan Chladek, David E. Gorcyca,
Louis L. Harris, non-U

Title: Method for Treating Ischemia Using Polypeptides with Fibronectin Activity
Purpose: A method for treating ischemia using polypeptides with fibronectin related activity.
Inventors: Kevin Billups, Urologic Surgery; Jeffrey Everett, Surgery; Leo Furcht,
James B. McCarthy, Laboratory Medicine and Pathology; Janice Allen, Sharon M. Wahl, non-U

Title: Pluripotential Quiescent Stem Cell Population
Purpose: A population of cells consisting essentially of very early progenitor cells useful in autologous bone marrow transplantation and gene therapy.
Inventors: John E. Wagner, Pediatrics; Jane S. Lebkowski, non-U

Title: Gene Sequence for Spinocerebellar Ataxia Type 1 and Methods for Diagnosis
Purpose: Provides an isolated DNA molecule of the autosomal dominant spinocerebellar ataxia type I gene.
Inventors: Harry T. Orr, Ming-Yi Chung, Laboratory Medicine and Pathology;
Laura P.W. Ranum, Neurology; Huda Zoghbi, non-U

Title: Peptides with Bactericidal Activity and Endotoxin Neutralizing Activity for Gram Negative Bacteria and Methods for their Use
Purpose: Provides biologically active peptides useful in methods to treat and prevent bacterial infection in the body and on surfaces.
Inventors: Kevin H. Mayo, Biochemistry, Molecular Biology and Biophysics; Judith R. Haseman, Beulah H. Gray,
Microbiology

Title: Method for Making Magnetic Storage Having Discrete Elements with Quantized Magnetic Moments
Purpose: Method of fabricating a magnetic storage medium.
Inventor: Stephen Y. Chou, Electrical and Computer Engineering

Title: Protein Adsorption by Very Dense Porous Zirconium Oxide Particles in Expanded Beds
Purpose: Porous zirconia particles can be synthesized using oil emulsion methods used for protein adsorption in stable expanded beds.
Inventors: Christopher Dunlap, Peter Carr, Chemistry; Michael Flickinger, John E. Morris, Michael J. Robichaud,
Biological Process Technology Institute; Colleen M. Griffith, Michael Annen, Chemical Engineering
and Materials Science

(next page)

- Title:** **Method for the Synthesis of Bis-tetrahydrofuranyl Annonaceous Acetogenins**
Purpose: A method for the synthesis of bis-tetrahydrofuranyl Annonaceous acetogenins including the natural products and analogs thereof.
Inventors: Lushi Tan, Thomas R. Hoye, Chemistry
- Title:** **Diphtheria Toxin Epitopes**
Purpose: Provides diphtheria toxin-specific peptides and a method for identifying an immunodominant sequence region in the peptide.
Inventor: Bianca Conti-Fine, Biochemistry, Molecular Biology & Biophysics
- Title:** **Method for Modifying a Substrate Surface to Include a Biomolecule**
Purpose: A method for making a medical device having a biomolecule immobilized on a substrate surface.
Inventors: Gregg B. Fields, Daniel L. Mooradian, Laboratory Medicine and Pathology
- Title:** **Method for Immortalizing Cells**
Purpose: A method for producing immortalized cell lines useful as substrates for viral propagation, as contaminant-free sources for recombinant protein production, for recombinant virus production and as cell substrates to support primary cells and improve virus yield during virus propagation.
Inventors: Linda Foster, James Farris, Douglas Foster, Animal Science
- Title:** **Sulfurization of Phosphorous-Containing Compounds**
Purpose: Provides a method for sulfurizing a phosphorus-containing compound using a disulfide-containing five-membered heterocycle.
Inventors: George Barany, Lin Chen, Qinghong Xu, Robert P. Hammer, Karin M. Musier-Forsyth, Chemistry
- Title:** **Streptococcal C5a Peptidase Vaccine**
Purpose: Novel vaccines for use against Beta-hemolytic Streptococcus colonization or infection and method for its operation.
Inventor: Paul Cleary, Microbiology
- Title:** **Cellulose Fiber Based Compositions and Film and the Process for their Manufacture**
Purpose: A process and materials in which highly refined cellulose fibers are broken down into microfibrils and further processed into composition, films, coating, and solid materials which are biodegradable and even edible.
Inventors: Paul Chen, Rongsheng Roger Ruan, Li Xu, Biosystems and Agricultural Engineering; Paul Addis, Lun Yi, Food Science and Nutrition; Jack E. Johnson, non-U
- Title:** **Waveguide Optical Amplifier**
Purpose: A waveguide optical amplifier includes a substrate and a guiding or active layer.
Inventors: Anand Gopinath, Klein L. Johnson, Electrical and Computer Engineering, Carol Ford, Randy J. Ramberg, non-U
- Title:** **GM-CSF Administration for the Treatment and Prevention of Recurrence of Brain Tumors**
Purpose: A method for inhibiting the growth of brain tumors comprising peripheral administration of GM-CSF in combination with brain tumor antigen.
Inventors: Margaret A. Wallenfriedman, Walter C. Low, Neurosurgery
- Title:** **Iron Complexes for Bleach Activation and Stereospecific Oxidation**
Purpose: A bleach and oxidation catalyst comprising a catalytically active iron complex which can activate hydrogen peroxide or peroxy acids, for example.
Inventors: Cheal Kim, Lawrence Que, Jr., Yan Zang, Jinheung Kim, Chemistry
- Title:** **Power Transfer Controller**
Purpose: A method and apparatus for controlling power transferred and regulating voltage in a multi-phase transmission line.
Inventor: Ned Mohan, Electrical and Computer Engineering

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Research Information for Projects involving Fairview Resources

Fairview and the Academic Health Center (AHC) have negotiated patient care and indirect cost rates.

Indirect cost rates: The University and Fairview have negotiated indirect cost rates. The new provisional indirect cost rate that should be used for 1999 is 20% of modified total direct costs. This rate is only effective through 7/31/99; a new rate will be negotiated to take effect 8/1/99.

Patient care rates: The University and Fairview have also negotiated patient care rates to be used by University researchers when procuring Fairview services for research purposes. The rates are available on ORTTA's website at www.ortta.umn.edu:80/spa/rates/rates.htm.

For assistance with developing subcontract budgets and obtaining pricing information for the use of any Fairview resources, contact Karen Wenell, Research Process Manager for the AHC's Research Services Organization at 612.625.0930, fax: 612.625.3956, wenel001@tc.umn.edu. Another contact is Mary Fahey, Director of Research at Fairview, mfahey1@fairview.org, 612.672.7680.

Investigational Pharmacy Service: There is a new fee schedule for researchers using the investigational pharmacy service. Information about the fees can be obtained through Darlette Luke at 612.626.6212, lukex004@tc.umn.edu.

Financial FormsNirvana

(continued from page 3)

take advantage of the new systems. Also, she raised questions about how small departments would manage to train their personnel at the same time they manage the new systems. She speculated that the changes underway would change the University's infrastructure in ways impossible to predict at this time.

Mary Olsen, Principal Accounts Specialist for Epidemiology is another administrator who appreciates the improvements that have been made in *Financial Forms Nirvana*. "Everything is running much faster than at the beginning," she says. "The training services are great and so are the way developers have been open to suggestion, particularly regarding improvements in the Purchase Orders. They are very good at listening." She mentioned that encumbering funds used to be a slow process when working on Purchase Orders, but that the system is "speeding up" in an impressive way. She noted that there is a sense that while it does take a bit longer to enter *Financial FormsNirvana* data than it does to "slap on a green label," the benefits are worth it. "We are much more aware of things now" she says.

One of the threads running through nearly all of the interviews done for this article is a confidence with the direction the university is moving in its ongoing systems reform. In that direction, it will be easier for principal investigators and administrators to obtain timely information about the sponsored projects they manage. This is also the direction indicated by the vision of the Grants Management Project: letting researchers concentrate on the production and dissemination of knowledge and giving administrators the tools to manage grants effectively. Based on the early feedback noted here, it looks like *Financial FormsNirvana* is well on its way to realizing that vision.

by Warren Lubline

Title: System, Method, and Article of Manufacture for Using Receiver Operating Curves to Evaluate Predictive Utility

Purpose: An electronic information system for determining predictive utility of prediction techniques in ascertaining which items are valued and a method for its operation. Also, a storage device readable by computer system for implementing this method.

Inventors: John T. Riedl, Joseph A. Konstan, N. Bradley Miller, Computer Science and Engineering

Title: Remote Underwater Sensing Station

Purpose: A portable, anchored sensor module for collecting fresh water environmental data over a range of depths.

Inventors: Gordon J. Johnson, Alan Cibuzar, Duane Juran, non-U

National Institutes of Health

Following are notices of two of the legislative mandates contained in the Omnibus Consolidated and Emergency Supplemental Appropriations Act for Fiscal Year 1999.

Acknowledgement of Federal Funding

When issuing statements, press releases, requests for proposals, bid solicitations, and other documents describing projects or programs funded in whole or in part with Federal money, all grantees receiving Federal funds included in this Act, including but not limited to State and local governments and recipients of Federal research grants, shall clearly state: 1) the percentage of the total costs of the program or project which will be financed with Federal money; 2) the dollar amount of Federal funds for the project or program; and 3) percentage and dollar amount of the total costs of the project or program that will be financed by non-governmental sources.

Salary Cap Ceiling

The Department of Health and Human Services (HHS) Appropriation Act for FY 1999 restricts the amount of direct salary of an individual under a grant or cooperative agreement or applicable contract to Executive Level III of the Federal Executive Pay Scale. That rate is currently \$125,900 which reflects a \$900 increase over the FY 1998 salary limit.

Direct salary is exclusive of fringe benefits and indirect costs/general and administrative expenses.

NIH will apply the limitation to all competing awards made with FY 1999 funds. Therefore, NIH grant awards for applications that request direct salaries of individuals in excess of a rate of \$125,900 per year will be adjusted in accordance with the legislative salary limitation.

The complete announcement may be accessed at <http://www.nih.gov/grants/guide/notice-files/not98-186.html>.

From: *NIH Guide*, December 22, 1998

Sponsored Projects Administration Question and Answer

Question:

What information does the grant administrator need in order to prepare a subcontract?

Answer:

Principal investigators need to include subcontract budgetary information with their proposals. Once the project is awarded, grant administrators need more details so they can prepare the subcontract agreement.

When grant administrators review the proposal, they look for several things:

- the proposal must have a detailed budget that reflects institutional endorsement from the subcontractor.
- the proposal must have a statement of intent signed by subcontract's principal investigator / institution along with University of Minnesota counterparts
- the need for the subcontract must be justified in the budget justification
- the totals from the subcontract budget must match the totals in the University of Minnesota composite proposal budget
- the subcontract budget must conform to the proposed sponsor's rules and regulations (e.g., for most sponsors, alcohol cannot be in the budget)
- the proposal budget should include indirect costs from the subcontract. Note: if the sponsor requires indirect costs and it is not included in the proposal budget, indirect costs will come out of the project's direct costs. It is preferred that the subcontractor include a copy of their federally negotiated rate agreement which will be retained in University of Minnesota files.

Once the award notice arrives from the sponsor, grant administrators need several items to prepare the subcontract agreement:

- a statement of work
- performance period dates if different than prime award dates
- technical reports / deliverable, if required
- confirmation that the budget in the file is correct or, if different, a revised budget
- a complete address and contact person for the subcontract
- a list of key personnel involved in the work

This information is needed before Sponsored Projects Administration can issue a subcontract.

by Kevin McKoskey and Mary Lou Weiss,
Sponsored Projects Administration

What's New in Grants Management

an index to changes and announcements

February 1999

(month 8 of UM fiscal 1999)

There are no announcements for the month of February

Index to Date

Sponsored Projects Administration (SPA)

- Update 9901:* Generic proposal added to EGMS
- Update 9902:* Changes to manual
- Update 9903:* Additional information required in letter to transfer a project to another institution
- Update 9904:* Revised overview brochure
- Update 9905:* PIs must budget some effort on every proposal
- Update 9906:* What are preaward accounts and preaward costs?
- Update 9907:* SPA staff have part-time office in the AHC RSO
- Update 9908:* Web provides new financial report: The Budget Variance Summary
- Update 9909:* Do pre-proposals have to go through SPA?
- Update 9910:* Payment Vouchers (PV) available for electronic departmental entry
- Update 9911:* Late proposals need your teamwork
- Update 9912:* Revision to Cost Sharing Guidelines and new Cost Sharing Policy
- Update 9913:* New proposal review and processing requirements
- Update 9914:* NIH award notices to arrive electronically
- Update 9915:* On-line purchase request available
- Update 9916:* NIH Prior Approval Requests to be sent Electronically
- Update 9917:* EGMS Version 1.0 Released

Patents and Technology Marketing (PTM)

- Update: 9901:* New PTM brochure
- Update 9902:* New reporting Invention Policy

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

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- Boetcher-Joeres, R.E. Respectability and deviance: nineteenth-century German women writers and the ambiguity of representation. Chicago, London: *University of Chicago Press*, 1998.
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Please send your new citations to
tove@ortta.umn.edu.

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More Information

To generate copies of NIH and NSF application forms, please go to,

EGMS at <http://www.ortta.umn.edu>, or to

NIH at <http://www.nih.gov/grants/forms.htm>, or to

NSF at <http://www.nsf.gov/pubsys/index.htm>

(You may call 612.624.9004 if you need help).

For funding searches

please contact the

Office of the Vice President for Research

612.625.7585; facgrant@gold.tc.umn.edu,

<http://www.research.umn.edu/research.html>.

■ National Science Foundation Geoscience Education

The National Science Foundation is repeating a special competition entitled, Awards to Facilitate Geoscience Education and combining it with a second element entitled, Application of Digital Libraries to Undergraduate Earth Systems Education. The purpose of the first program is to facilitate the involvement of leading researchers in efforts to improve the quality of geoscience education. The purpose of the second is to provide a context for inquiry-based learning, development of skills in applying modern communications technologies to analysis of large, real-world data sets, and nurturing the critical thinking that underlies scientific investigations.

Awards to Facilitate Geoscience Education

Proposals may target any educational level: 1) graduate and postdoctoral education and training (outside the framework of normal NSF research grants); 2) undergraduate education; 3) elementary and secondary education; and 4) education outside the classroom. Examples of possible activities that might be supported are:

- initiation of novel approaches to creating geoscience curricula, especially those involving new technologies,
- bringing cutting-edge research to the classroom or to the public,
- partnerships to implement the National Science Education standards,
- technologies to reach small and community colleges more effectively,
- development of web-based pedagogy,
- opportunities for teachers to work with scientists,
- workshops for training geoscientists in educational issues,

- planning grants for interdisciplinary research on geoscience education,
- workshops to organize precollege data collection programs,
- partnering for initiation of museum exhibits,
- support for outreach activities of professional societies,
- distinguished geoscience education lecture series,
- innovative of university consortia networks for sharing of resources.

A major motivation of this competition is to foster collaborations that integrate research and education. Projects that involve active linkages which serve this purpose, either currently in place or to be developed, are particularly encouraged.

Long-term funding will not be provided. Instead, awards will provide start-up funding to enable projects to reach a level of maturity so that they can compete successfully for long-term funding from other sources.

Application of Digital Libraries to Undergraduate Earth Systems Education.

This element is expected to further the goal of greater integration of research and education by enabling students at all levels to have experience using research quality data and tools. It could provide a number of resources, including:

- collections or registries of research quality data and tools for its analysis,
- collections or registries of course and curriculum materials,
- mechanisms for faculty to find, combine, and adapt resources from a variety of sources,
- mechanisms for assisting the effectiveness of materials and practices, and mechanisms for disseminating best materials and practices.

Proposals are invited that address at least two of the elements above. Large-scale, collaborative proposals are invited that establish a framework and begin a process of integrating diverse separate efforts in Earth system education into a coherent and accessible whole.

The application deadline is **March 9, 1999**. The announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9944>. Agency contacts are listed in the announcement.

■ National Science Foundation Mid-Career Methodological Opportunities Fellowships

The National Science Foundation's Division of Social, Behavioral, and Economic Research, and the Division of Mathematical Sciences are inviting applications for mid-career research fellowships in the social, behavioral, economic, and statistical sciences to foster development of innovative methods and models for understanding complex social and behavioral phenomena.

The purpose of the fellowship is to encourage interactions among statisticians and social, behavioral, and economic scientists. For example, a statistician may elect to spend the fellowship period in the sociology department on his/her home campus. Proposals must concretely demonstrate how the proposed fellowship will further the development of new methods for increased understanding of complex, substantive problems in the social and behavioral sciences.

The maximum stipend is \$50,000, plus fringe benefits, a special \$3,000 allowance for science supplies, travel, publication expenses, and other research costs, and a \$3,000 travel allowance if the host location is different from the home institution. Fellowship awards are for up to 12 months. NSF expects to make four to eight awards.

Any qualified researcher may submit a proposal through normal channels at the home or host institution. Researchers must have earned a Ph.D. or equivalent degree in the social, behavioral, economic, or statistical sciences.

The next two deadlines are **March 1, 1999** and **September 1, 1999**. Questions may be directed to Cheryl Eavey, Methodology, Measurement, and Statistics Program, NSF, 703.306.1729, fax 703.306-0485, ceavey@nsf.gov, or James Rosenberger, Statistics and Probability Program 703.306.1883, fax 703.306.0555, jrosenbe@nsf.gov. The solicitation may be found at <http://www.nsf.gov/pubs/1999/nsf9933/nsf9933.htm>.

■ Agency for Health Care Policy and Research New Proposals

The Agency for Health Care Policy and Research (AHCPR) is advertising for research proposals in priority areas, thanks to a congressional funding boost for 1999. AHCPR is concerned that agency constituents, discouraged by recent funding restrictions, might fail to look to AHCPR for grants now that it is back in the grants business.

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Funding opportunities include the areas of quality and healthcare outcomes. Other priorities are:

- Outcomes for the elderly and chronically ill
- Clinical preventive services
- Centers for education and research therapeutics
- Improving the quality of children's health
- Pharmaceutical outcomes research
- Evidence-based practice
- Primary care research
- Shared decision making
- Consumer decision making
- Access, costs, quality, and outcomes
- Quality measurement and improvement
- Health care financing and organization

For more information, consult the AHCPR web site: <http://www.ahcpr.gov>.

■ National Foundation on the Arts and Humanities Group Discussions Among Artists, Scientists, Astronauts

The National Endowment for the Arts is requesting proposals leading to the award of a cooperative agreement to coordinate and videotape five to seven sessions of artists, scientists, engineers, and astronauts conversing about the creative process and environmental conditions on Mars. Discussions will focus on how the conditions might influence the art produced there, and the design of livable structure, among other issues.

The videotapes will be used in pre K-12 schools across the United States as part of Mars Millennium Project. The project, as envisioned, will include: development of script format, coordinating scheduling and travel arrangements for participants, arranging production and post production, and providing up to 200,000 copies of the material produced.

Those interested in receiving the solicitation should reference program solicitation PS 99-02 in their written request, and include two self-addressed labels. Verbal requests will not be honored.

Proposals are due **February 22, 1999**. Request applications from National Endowment for the Arts, Grants & Contracts Office, Room 618, 1100 Pennsylvania Avenue NW, Washington, DC 20506. For other information, contact William Hummel, Grants and Contracts Office, same address; 202.682.5482.

■ NASA

Earth System Science Fellowship Program

This fellowship targets students pursuing graduate degrees in fields supporting the study of the Earth as a system. Applications for research on climate and hydrologic systems, ecological systems and dynamics, biogeochemical dynamics, solid Earth processes, human interactions, solar influences, and data and information systems will be considered.

Applicants must be admitted and enrolled full-time at a U.S. university at the time of the award. NASA awards about 50 new fellowships in September of each year to coincide with the start of the fall academic semester at U.S. universities.

The application deadline **March 15, 1999**. The announcement and accompanying application forms are available at <http://www.earth.nasa.gov/> under "education materials." A paper copy of the announcement may be requested by calling 202.358.3552 and leaving a voice mail message. Please leave your full name and address, including zip code, and telephone number with area code.

Questions may be directed to Dr. Ming-Ying Wei, NASA Headquarters, Code YSP-44, Washington, DC 20546; 202.358.0771, fax 202.358.2771, mwei@hq.nasa.gov.

■ Department of Energy

National Petroleum Technology Office Reservoir Class Field Demonstration Program DE-PS26-99BC15144

The U.S. Department of Energy's National Petroleum Technology Office (NPTO) in conjunction with the Federal Energy Technology Center (FETC) announces a program solicitation. This solicitation supports two goals: 1) to ensure against energy disruptions, and 2) to promote energy production and use in ways that reflect human health and environmental values. The focus is to reduce U.S. vulnerability to supply disruptions by expanding the domestic oil supply.

The solicitation addresses program goals of preserving access to existing domestic reservoirs with high potential for productivity through technology transfer activities that motivate operators to identify producibility problems and apply underutilized technologies to overcome recovery problems. Projects must include: reservoir characterization (budget period 1); demonstration/field activities (budget period 2); and continued project monitoring activities (budget period 3). Technology transfer activities should be a major component of all budget period activities.

DOE currently has \$8.3 million available for this program and intends to bring total DOE support to \$18 million. It is anticipated that between 10-20 awards will be made for five to six years. The proposer must cost-share at least 55 percent of the total allowable cost of budget period 1, at least 65 percent of the total allowable cost of budget period 2, and at least 90 percent of the total allowable cost of budget period 3.

The application deadline is **April 1, 1999**. For further information contact Mr. Keith R. Miles, U.S. Department of Energy, Federal Energy Technology Center, PO Box 10940 (MS 921-143), Pittsburgh, PA 15236-0940; 412.892.5984; fax 412.892.6216, miles@fetc.doe.gov. The solicitation is available through the internet at <http://www.fetc.doe.gov/business>.

■ Lupus Foundation of America

The Lupus Foundation of America has announced its next deadline. The primary focus of the organization is to encourage research related to the causes, treatments, prevention, and cure of lupus and to directly sponsor seed research monies to test new approaches and develop experimental prototypes that may be presented for larger-scale funding through public or other sources.

Grants are awarded for up to two years to junior investigators (Ph.D.'s and M.D.'s) with assistant professor and below rank to support biomedical research related to finding the cause and/or cure for lupus erythematosus. The award amount is \$15,000 per year for two years. Approximately five grants are awarded annually; in addition, several unfunded projects may be identified for funding by local LFA chapters.

The application deadline is **April 1, 1999**. Guidelines and forms may be found at <http://www.lupus.org/lupus>. Other information may be requested from the Research Grants Program, Lupus Foundation of America, 1300 Piccard Drive, Suite 200, Rockville, MD 20850-4303; 301.670.9292.

■ National Institutes of Health

National Center for Research Resources Shared Instrumentation Grant

The National Center for Research Resources (NCRR) is continuing its competitive Shared Instrumentation Grant program. The objective of the program is to make available to institutions expensive research instruments that can only be justified on a shared-use basis and for which meritorious research projects are described.

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Applications are limited to instruments that cost at least \$100,000 per instrument or integrated instrument system. The maximum award is \$500,000 and will be made for direct costs only. Grants will be awarded for a period of one year and are not renewable. The institution must meet those costs (not covered in the normal purchase price) required to place the instrumentation in operational order as well as the maintenance, support personnel, and service costs associated with maximum utilization of the instrument. If the amount of funds requested does not cover the total cost of the instrument, the application should describe the proposed sources of funding for the balance of the funding.

Types of instrumentation supported include, but are not limited to, nuclear magnetic resonance systems, electron and confocal microscopes, mass spectrometers, protein and DNA sequencers, biosensors, x-ray diffractometers and cell sorters. Support will not be provided for general purpose equipment or purely instructional equipment, personal computers, personal work stations, printers and ethernet interfaces.

An institution may submit more than one application for different instrumentation.

The application deadline is **March 19, 1999**. The announcement may be accessed at <http://www.nih.gov/grants/guide/pa-files/PAR-99-031.html>. Programmatic questions may be directed to Marjorie A. Tingle, Shared Instrumentation Grant Program, National Center for Research Resources, 6705 Rockledge Drive, Room 6154 MSC 7965, Bethesda, MD 20892-7965; 301.435.0772; fax 301.480.3659, SIG@ncrr.nih.gov.

■ Department of Commerce Telecommunications and Information Infrastructure Assistance

The National Telecommunications and Information Administration (NTIA) announces the sixth annual Telecommunications and Information Infrastructure Assistance Program (TIAP). TIAP assist eligible organizations by promoting the widespread use and availability of advanced telecommunications and information technologies in the public and non-profit sectors. The goal is to help develop a nationwide, interactive, multimedia information infrastructure that is accessible in rural as well as urban areas.

Projects will be supported that improve the quality of, and the public's access to, cultural, educational, and training resources; reduce the cost, improve the quality, and/or

increase the accessibility of health care and public health services; promote responsive public safety services; improve the effectiveness and efficiency of government and public services; and foster communication, resource-sharing, and economic development within both rural and urban communities.

TIAP will provide matching grants to state, local, and tribal governments; non-profit health care providers and public health institutions; schools; libraries; museums; colleges and universities; public safety providers; non-profit community-based organizations; and other non-profit entities. Matching is 50 percent.

Approximately \$17 million is available for assistance; TIAP anticipates that the average size of a grant award will be approximately \$350,000 a year for two to three years.

The application deadline is **March 11, 1999**. For further information contact Stephen J. Downs, Director, Telecommunications and Information Infrastructure Assistance Program, U.S. Department of Commerce, 1401 Constitution Avenue NW, HCHB Room 4092, Washington, D.C. 20230; 202.482.2048, fax 202.501.5136, tiap@ntia.doc.gov. A full copy of the announcement is available from ORTTA and may be requested by calling 624.0061.

■ Department of Defense National Security Education Program

The National Security Education Program (NSEP) announces the opening of its sixth annual competition for grants to U.S. institutions of higher education. The announcement did not offer any specifics on the program.

Application guidelines and forms are available and may be downloaded from the NSEP home page at <http://www.dtic.mil/defense/links/pubs/nsep>. Or, you may write to NSEP, Institutional Grants, Rosslyn PO Box 20010, 1101 Wilson Boulevard, Suite 1210, Arlington, VA 22209-2248.

Preliminary proposals are due **April 9, 1999**. For other information contact Dr. Edmond J. Collier, Deputy Director, NSEP, at the above address; 703.696.1991, colliere@ndu.edu.

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Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by ORTTA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at ORTTA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
December 1998	305	\$ 44,779,055
Awards Processed		
December 1998	193	24,833,366
Proposals Submitted		
July 1998 - December 1998	1,909	362,272,013
Awards Processed		
July 1998 - December 1998	1,608	176,353,330
Proposals Submitted		
July 1997 - December 1997	1,890	337,034,533
Awards Processed		
July 1997 - December 1997	1,545	173,590,297

Attention Deficit Hyperactivity Disorder (ADHD) College Students: Outcome of a Multicomponent Clinical Assessment and Treatment Program for Adult ADHD
 Katherine L. Morris,
 Richard G. Hoffman, Medicine, Duluth
 Duluth Clinic Education and Research Foundation
 \$10,000 - 8/15/98-6/15/99

Connecting Communities through Resource Education: Community Connection Program
 Patricia Stoppa, Extension Classes
 Brown County/SE Initiative Fund
 \$9,987 - 12/31/97-12/31/98

Dynamics of Actin's Interaction with Myosin or Dystrophin
 Ewa Prochniewicz, Biochemistry, Medical School
 David D. Thomas, Biochemistry, Medical School
 Muscular Dystrophy Association
 \$105,000 - 7/1/98-6/30/99

Spectrophotometer for Membrane and Muscle Research
 David D. Thomas, Biochemistry, Medical School
 Minnesota Medical Foundation
 \$23,400 - 12/1/98-11/30/99

Characterization of Myosin I Function in Vivo
 Margaret Titus, Cell Biology and Neuroanatomy
 NIH, NIGMS
 \$121,107 - 10/1/98-3/31/99

Analysis of a Novel Myosin Required for Phagocytosis
 Joseph F. Kelleher, Cell Biology and Neuroanatomy
 NIH, NIGMS
 \$12,917 - 10/1/98-3/31/99

Fkbp-12 Expression as a Marker for Nerve Regeneration
 Maria K. Hordinsky, Dermatology
 Marna Ericson, Dermatology
 Anna D. Guanche, Dermatology
 Minnesota Medical Foundation
 \$9,000 - 12/1/98-11/30/99

Role of Extracellular Matrix and Cytoskeleton in Cyclin D1 Expression
 Linda K. Hansen, Laboratory Medicine and Pathology
 Jeffrey H. Albrecht, Medicine
 National Science Foundation
 \$100,000 - 9/1/98-8/31/99

Gene Therapy For Chronic Myelogenous Leukemia (CML)
 Catherine M. Verfaillie, Medicine
 Leukemia Society Of America, Inc.
 \$216,000 - 9/3/98-9/2/00

Structural Determinants of Glomerular Permeability
 Barbara Daniels, Medicine
 Stanley L. Erlandsen, Cell Biology and Neuroanatomy
 NIH, NIDDK
 \$192,092 - 9/1/98-8/31/99

Selective Elimination of Lung Fibroblasts and Inhibition
 Craig A. Henke, Medicine
 Melissa King-Biggs, Medicine
 Minnesota Medical Foundation
 \$7,000 - 12/1/98-11/30/99

Acetylcholine Receptor Genes in Slow Channel Syndrome
 Christoph Gomez, Neurology
 NIH, NINDS
 \$260,781 - 12/4/98-11/30/99

Effects of 2000mg Citicoline on Clinical Outcome and Lesion Volume in Human Stroke
 Arthur C. Klassen, Neurology
 Interneuron Pharmaceuticals, Inc.
 \$120,000 - 6/1/98-9/30/99

Advance Studies of Alzheimers Disease
 Karen Hsiao, Neurology
 Metropolitan Life Foundation
 \$100,000 - 12/1/98-11/30/99

Trial of Human Glial Cell Line-Derived Neurotrophic Factor for Parkinson's Disease
 Paul J. Tuite, Neurology
 Brenda J. Ebbitt, Neurology
 Amgen
 \$20,000 - 7/22/98-12/31/02

Magnetic Resonance Spectroscopy for Neurological Conditions
 Paul J. Tuite, Neurology
 Rolf Gruetter, Radiology
 Minnesota Medical Foundation
 \$14,000 - 12/1/98-11/30/99

Toward Gene Therapy for Sanfillippo Syndrome Type B
 Chester B. Whitley, Pediatrics
 Children's Medical Research Foundation
 \$50,000 - 7/1/98-6/30/99

Second Malignant Neoplasms Following Childhood Cancer
 Stella M. Davies, Pediatrics
 National Childhood Cancer Foundation
 \$13,262 - 1/5/98-11/30/98

Premature Menopause in Survivors of Childhood Cancer
 Ann Mertens, Pediatrics
 Sloan-Kettering Institute For Cancer Research
 \$00 - 11/10/98-2/9/99

Smoking Cessation among Childhood Cancer Survivors
 Leslie L. Robison, Pediatrics
 Ann Mertens, Pediatrics
 Dana-Farber Cancer Institute
 \$00 - 9/30/98-12/31/98

Prenatal Viral Infection, Brain Development, and Schizophrenia

S.H. Fatemi, Psychiatry
National Alliance for Research on Schizophrenia and Depression
\$100,000 - 9/15/98-9/14/99

The Role of Personality in Predicting Response to a Non-Light Placebo in Seasonal Affective Disorder

Paul A. Arbisi, Psychiatry
Minnesota Medical Foundation
\$9,000 - 12/1/98-11/30/99

Novel Immunotherapy Towards Safe and Successful Islet Replacement in Early Diabetes

Bernhard J. Hering, Surgery
David E. Sutherland, Surgery
Juvenile Diabetes Foundation
\$629,256 - 9/1/98-10/31/99

Development of a Novel Model for Coronary Artery Bypass

Richard W. Bianco, Surgery
Heartstent, Inc.
\$404,978 - 8/1/98-7/31/99

Evaluation of the Reservoir Effects of Sefrafilin Bioresorbable Membrane in the Reduction of Adhesions to Marled Mesh in Rat Hernia Repair Model

John P. Delaney, Surgery
Genzyme, Inc.
\$9,939 - 5/1/97-2/28/98

A Study of Risk Factors for Violence Among Nurses

Susan G. Gerberich, Environmental and Occupational Health
George Maldonado, Environmental and Occupational Health
Helen Hansen, Nursing
CDC, NIOSH
\$266,995 - 5/1/98-4/30/99

Food and Nutrient Systems for Research

John H. Himes, Epidemiology
NIH, NHLBI
\$400,000 - 12/15/98-11/30/99

Evaluation of Predictors or Recurrent Adenomas

Lawrence Kushi, Epidemiology
University of South Carolina
\$77,494 - 2/1/98-1/31/99

ViaSTEM Biological Safety Assessment

Cynthia S. Gillett, Laboratory Medicine and Pathology
Celox Laboratories, Inc.
\$17,102 - 9/17/98-1/1/99

Sensory Function to Innocuous/Noxious Cold Stimuli on Human Skin

Curtis R. Bergey, Diagnostic Surgical Science
Donald A. Simone, Psychiatry
American Academy of Orofacial Pain
\$1,000 - 2/1/98-6/30/99

Equine Neonatal Educational Program and Colostrum Network

Tracy A. Turner, Clinical and Population Sciences
Minnesota Racing Commission
\$528 - 11/15/97-6/30/98

Soy Isoflavones and Cell Proliferation in Monkeys

M. Gerard O'Sullivan, Veterinary Pathobiology
Cathy S. Carlson, Veterinary Diagnostic Medicine
NIH, NCI
\$536,860 - 9/21/98-8/31/99

Model Development for B19 Parvovirus Fetal Infection

M. Gerard O'Sullivan, Veterinary Pathobiology
NIH, NCRR
\$80,637 - 9/1/98-6/14/99

Pathogenesis and Therapy of B19-Induced Hydrops Fetalis

M. Gerard O'Sullivan, Veterinary Pathobiology
Daniel A. Feeney, Small Animal Clinical Science
Cathy S. Carlson, Veterinary Diagnostic Medicine
NIH, NICHD
\$274,844 - 8/1/98-4/30/99

Development of a Radiation Hybrid Panel for Cattle

Craig W. Beattie, Veterinary Pathobiology
Japan Livestock Technology Association
\$41,914 - 10/1/98-3/31/99

New Techniques in Diagnosing Osteoarthritis

Cathy S. Carlson, Veterinary Diagnostic Medicine
NIH, NCRR
\$89,765 - 11/1/98-6/14/99

Infrared Imaging Photometry and Polarimetry of Comets

Terry J. Jones, Astronomy
National Aeronautics and Space Administration
\$75,100 - 10/1/98-9/30/99

Investigation of Low-Energy Nuclear Reactions

Richard A. Oriani, Chemical Engineering and Materials Science
Neutronics Corp.
\$80,000 - 4/1/98-3/31/99

Theory of the Structural and Electronic Properties of Oxides

James R. Chelikowsky, Chemical Engineering and Materials Science
U.S. Department of Energy
\$60,000 - 7/1/98-6/30/99

MEMS-Based Vibration Sensory Array

Dennis L. Polla, Electrical Engineering
Honeywell, Inc.
\$75,000 - 10/28/98-4/28/99

Modeling of Piezoelectric Effects in III Nitrides Task

P.P. Ruden, Electrical Engineering
TRW, Inc.
\$63,989 - 11/23/98-10/1/00

Theoretical Investigation of Breakdown Effects

P.P. Ruden, Electrical Engineering
Georgia Institute of Technology
\$27,418 - 10/1/98-4/30/99

Solar Wind Coupling to the Magnetosphere: Analysis

Naiguo Lin, Physics and Astronomy
Cynthia Cattell, Physics and Astronomy
National Aeronautics and Space Administration
\$84,519 - 1/1/99-12/31/99

To Support Analysis of Data from the UCLA Magnetometer on NASA Polar Spacecraft During the Extended Mission

Cynthia Cattell, Physics and Astronomy
National Aeronautics and Space Administration
\$32,500 - 1/1/99-12/31/99

Solid State Photo Multiplier

Roger Rusack, Physics and Astronomy
Fermi National Accelerator Laboratory
\$10,000 - 8/1/98-12/1/98

Molecular Biophysics Training Program

Victor A. Bloomfield, Biochemistry, CBS
NIH, NIGMS
\$176,858 - 7/1/98-6/30/99

Twin Study of Female Alcoholism and Related Disorders

William G. Iacono, Psychology
David T. Lykken, Psychiatry
NIH, NIAAA
\$613,254 - 12/1/98-11/30/99

Analysis and Visualization of Massive Data Sets
Douglas M. Hawkins, Statistics
University of California, Davis
\$10,129 - 10/1/97-12/31/98

Bertolt Brecht's "Turandot": An English Language Premier
Anja I. Klock, Theatre Arts and Dance
Minnesota Humanities Commission
\$2,000 - 7/17/98-12/31/98

Making of an Ethnic Identity in South African Chieftdom
Sekibakib Legoathi, International Center for Global Change
Allen F. Isaacman, History
Rockefeller Foundation
\$25,060 - 11/1/98-12/31/99

Smallholder Irrigation Schemes in Manicaland, 1928-97
Estella Musiiwa, International Center for Global Change
Allen F. Isaacman, History
Rockefeller Foundation
\$16,915 - 10/1/98-9/30/99

Integrated Risk Management Education
Kevin Klair, Applied Economics
South Central Technical College
\$108,651 - 7/1/98-9/30/99

Tradeable Permits for Controlling Nitrate Pollution of Domestic Groundwater Supply
Vernon R. Eidman, Applied Economics
Jay Coggins, Applied Economics
U.S. Department Of Agriculture
\$87,500 - 12/1/98-11/30/00

Radiation Hybrid System for Mapping in Corn
Ronald L. Phillips, Agronomy and Plant Genetics
Howard W. Rines, Agronomy and Plant Genetics
Eugueni V. Ananiev, Agronomy and Plant Genetics
National Science Foundation
\$784,236 - 10/1/98-9/30/99

Development of Low-Saturated Low Linolenic Soybean Cultivars
James H. Orf, Agronomy and Plant Genetics
U.S. Department Of Agriculture
\$15,000 - 12/14/98-9/30/03

Hot Temperature Stress and Turkey Reproduction
Mohamed E. El Halawani, Animal Science
Binational Agricultural Research and Development Fund
\$173,000 - 12/1/98-11/30/01

Insect Response to Vegetational Diversity
George Heimpel, Entomology
U.S. Department Of Agriculture
\$160,000 - 12/15/98-12/31/01

Effects of Ecdysone on Mosquito Cell Proliferation
Ann Fallon, Entomology
NIH, NIAID
\$153,665 - 12/1/98-11/30/99

County Corn Samples 1998
Paul Porter, Agronomy and Plant Genetics
Minnesota Corn Growers Association
\$1,500 - 10/31/98-12/15/98

Vikane Fumigation of Beech and Maple Logs to Prevent Enzyme Stain
Elmer L. Schmidt, Wood and Paper Science
Sota Tec Fund
\$30,102 - 8/1/98-4/30/99

Developing the Forest Products Directory Structure
Joseph G. Massey, Wood and Paper Science
St. of Minn., Department of Natural Resources
\$12,000 - 4/1/98-10/30/99

Big Foot Characterizing Land Cover, Leaf Area Index (LAI), and Net Primary Production (NPP) at the Landscape Scale for EOS/MODIS Validation
Peter B. Reich, Forest Resources
Oregon State University
\$76,797 - 1/1/99-12/31/99

Ensuring that "All Means All"
David R. Johnson, Educational Psychology
St. of Minn., Department Of Education
\$126,296 - 3/12/98-9/30/98

Community of Scholars Program
Mark L. Brenner, Horticultural Science
Nancy R. Barcelo,
Bush Foundation
\$751,617 - 11/1/98-10/31/99

Statewide Angler Attitude Survey
Rossana Armson, Urban & Regional Affairs
St. of Minn., Department Of Natural Resources
\$49,000 - 4/15/98-9/30/98

Habitat Health Services
Barbara A. Elliott, Medicine, Duluth
Ordean Foundation
\$19,953 - 10/1/98-9/30/99
Northland Foundation
\$15,118 - 11/1/98-8/31/99

Laser Capture Microdissecting System
Kent M. Froberg, Pathology and Laboratory Medicine, Duluth
Minnesota Medical Foundation
\$20,000 - 12/1/98-11/30/99

Mitochondrial Interactions of Peroxisome Proliferators
Kendall B. Wallace, Pharmacology, Duluth
Minnesota Mining and Manufacturing Company
\$200,234 - 12/1/98-6/30/01

Taconite Concentrator Process Modeling and Simulation
Ronald L. Wiegel, Natural Resources Research Institute
St. of Minn., Department Of Natural Resources
\$95,333 - 11/1/98-6/30/99

Hammersley Iron, Yandi Ore Testing
Blair R. Benner, Natural Resources Research Institute, Duluth
Chuying Wu, Natural Resources Research Institute, Duluth
Kvaerner Davy
\$50,600 - 8/18/98-12/1/98

Performance of Containerized Textile and Peat Biofilters
Stephen Monson Geerts, Natural Resources Research Inst., Duluth
Barbara J. McCarthy, Natural Resources Research Institute, Duluth
Minnesota Technology, Inc.
\$70,700 - 7/1/98-6/30/99

Reading Tutoring Partnership
Joan Karp, Education and and Human Sevices, Duluth
Mary Cameron,
North Central Regional Educational Laboratory
\$50,000 - 10/1/98-3/31/99

The Paleoclimate Record in Sediment Cores from Lake Issyk Kul, Kyrgystan
Thomas C. Johnson, Large Lake Observatory
Erik T. Brown, Large Lake Observatory
National Science Foundation
\$64,334 - 12/1/98-11/30/99

Performing Arts Series 98-99
Sara Haugen, Student Activities, Morris
Carol McCannon, Admissions and Financial Aid, Morris
Minnesota State Arts Board
\$11,930 - 7/7/98-6/30/99

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RESEARCH REVIEW

Office of Research and Technology Transfer

March 1999

Vice President Maziar Presents Annual Report on the Status of the University's Research

Vice President for Research and Dean of the Graduate School Christine Maziar reported sponsored research expenditures increased by nearly 10 percent over last year to a total of \$344 million during her presentation to the Board of Regents on February 12, 1999. Maziar based her presentation on the Annual Report on the Status of the University's Research for fiscal year 1998 and said the increase in expenditures is a promising indicator that faculty and professional research staff are competing well for externally funded research support.

According to the report, the National Institutes of Health (NIH) remain the major source of sponsored research expenditures. NIH increased their contribution by more than 3 percent, followed by the Department of Defense, which more than doubled its contribution over last year, and the National Science Foundation. The Department of Agriculture, U.S. Department of Interior, and the National Endowment for the Arts and Humanities all lowered the amount of their funding which according to Maziar may reflect federal funding priorities and could be troublesome due to the focused impact such reductions have on select research and graduate programs.

The Medical School continues to receive the largest fraction of external research funding with expenditures of \$109 million, up 4.4 percent over last year, followed by the Institute of Technology with \$84 million and the biggest increase at 28.3 percent. Other top research funding recipients include the School of Public Health, College of Agriculture, Food and Environmental Sciences, College of Education and Human Development, and the College of Biological Sciences.

The University of Minnesota remains in the top ten nationally according to analysis of science and engineering research and development expenditures provided by the

National Science Foundation. However, despite the 10 percent growth in sponsored expenditures, the University slipped from ninth to tenth place. Maziar pointed out that competition to retain membership in the top ten is intense with institutions like Cornell and Penn State losing their membership in fiscal year 1997 and that the separation between institutions is quite small leading to some volatility in the rankings.

Maziar reported that the Grant-in Aid Program made 148 awards during the year totaling \$2.3 million of which, \$1.3 million went to support new faculty. The program also provides support to faculty making research transitions, to projects requiring "bridge" funding, and to projects requiring shared equipment.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612.624.5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612.626.9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 9

March 1999

Editor: Bruce Erickson

Editorial Assistant: Tove Jespersen

Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Bruce Erickson, 612.625.2354, bruce@ortta.umn.edu, or Tove Jespersen 612.624.0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When developing budgets for proposals, please use the following rates.

Graduate and Professional Student Assistants

New *provisional* rates effective Fall, 1999

TA, RA, AF: standard	\$5.13/hr + 7.6%
	of gross salary
TA, RA, AF: advanced master's or Ph.D.	\$.93/hr + 7.6%
Summer quarter TA, RA, AF	— 7.6%
Summer session TA, with tuition	\$9.68/hr + 7.6%
Summer session TA, without tuition	— 7.6%
Professional program assistant	— 7.6%
Dental fellow *	\$3.35/hr —
Medical fellow *	\$2.57/hr —

To the rates listed above, add 7.7% to the 7.6% when a graduate student is enrolled for fewer than 3 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental or medical fellows, or medical fellow specialists. **This is a change from previous years.**

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612.625.7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	24.4%	27.6%	14.2%
7/1/00 - 6/30/01	27.9%	27.4%	14.3%

Fringe benefit rates are determined by the Accounting Services Department; call Vivian Fickling, 612.624.2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe98_99.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Bruce Erickson, editor, at 612.625.2354, bruce@ortta.umn.edu.

Grants Management Provides Sponsored Project Financial Oversight Reports

In the restructuring of the University's business processes that is taking place, the University of Minnesota is providing a number of tools for investigators and administrators to assist them in their jobs. One of these tools is the Financial Oversight Reports. These reports will help Principal Investigators, Deans, and Department Heads in the new decentralized decision-making and oversight processes that are a part of the Grants Management Project.

Much of the financial support for the University's research mission is provided by sponsors external to the University, whether federal, state, or private. The day-to-day responsibility for the financial management of a specific grant remains with Principal Investigators and their administrative support. A higher level of financial oversight of sponsored research should be conducted by Deans, Department Heads, and Directors. To make this possible, a set of electronic reports targeting potential high risk financial areas has been created and is now available via the web.

These oversight reports provide units and colleges information that may be used to identify patterns that should be explored further or to consider changes in operations to improve the outcomes. It is critical that this oversight model be incorporated into the monthly activity of each unit that receives sponsored funding. The following reports are available:

The *Spending Rate on Sponsored Accounts Report* compares both the elapsed project period and the percentage of budget expended. Its purpose is to identify accounts with potential ending balance problems. Principal Investigators and Department Heads will view this report to see if the rate of spending seems appropriate for the project period and if the displayed rate of spending signals a significant risk of a deficit or large balance at project end.

The *Sponsored Accounts in Deficit Report* identifies those accounts that are currently in deficit. Deans and Department Heads will view this report to see if there are deficits which need to be removed to a non-sponsored account or if additional dollars are awaiting set-up by Sponsored Projects Administration (SPA). They will also view this report to see that there is no pattern of overspending by Principal Investigators or the Department.

The *Fixed Price Account Balances Report* provides the current balances of accounts where the price was fixed for the outcome proposed, and the end date has been reached. Deans and Department Heads will view this report to see if there is a pattern by Principal Investigators or departments of overestimating or underestimating the cost or effort to complete a project.

The *Aged Pre-Award Accounts Report* displays all sponsored accounts in pre-award status where spending has begun, as well as the number of days since the account was established. Deans and Department Heads will view this report to see if the account has been in pre-award status more than 60 days.

The *Non-Salary Expense Transfer Activity Report* lists all transfers onto a sponsored account that occurred within a specified month, and highlights those that fall outside of the cost-transfer policy. Deans and Department Heads will view this report to determine if the number and purpose of the cost transfers were appropriate.

The *IDC Rate Report* displays the Indirect Cost recovery negotiated rate, amount, and actual rate by account within the fiscal year. Deans and Department Heads will view this report to determine:

- How much IDC (F&A) funds have been generated.
- Is there reasonable justification for not receiving IDC on specific projects.

The *Program Income Report* provides both reportable and non-reportable program income totals. Deans and Department Heads will view this report to determine:

- If the amount of program income is reasonable given the project objectives (e.g. less than 20%).
- Whether the amount has reached the federal threshold that requires agency notification.

by Warren Lubline
Grants Management Project

Annual Report on Research

(continued from page 1)

Maziar also gave updates on the Undergraduate Research Opportunities Program (UROP) and the rates for indirect cost recovery.

- UROP allows students to receive a stipend of up to \$1,000 for approximately 120 hours of work and \$300 for expenses. Each year the University invests nearly a half million dollars in these student scholars and researchers.
- Currently, the maximum allowable facilities and administration rate (previously known as indirect cost rate) is set at 47 percent until June 30, 1999. Because each one percent change in this rate means a change of \$1.2 to \$1.3 million in the University's revenue stream, establishing a fair rate that assists the University in recovering its costs is imperative. University staff are preparing to start negotiations with the federal Department of Health and Human Services to establish the new rate.

Contracts for Professional Services

Processes Cited by Auditors

Internal Auditors filed three findings related to Contracts for Professional Services (CFPS) that need to be passed on to you, the departments.

The first finding is rated "essential." This means that we must make a change. *A common practice of departments is to allow work to begin before a contract is approved by all parties. This practice puts the University at risk for legal action and service problems.* Without a signed agreement, the University has no enforcing document, no remedies for poor performance, no payment agreement, no risk management, or any of the other terms and conditions listed on the CFPS which the contractor signs.

Currently, Purchasing sends reminders to departments when it is obvious that the work has begun prior to obtaining all approvals. We hope we do not have to escalate this procedure to the level of a penalty. That is why *we are asking each department to take seriously this audit finding, and make sure that contracts are completely executed and authorized before the contractor begins any work.*

The second finding is in the area of amendments to Contracts for Professional Services. *Auditors found that amendments are not being done in a consistent manner.* This finding was rated "significant." Auditors found that many amendments did not have a clear trail back to the original contract. In some cases, a new contract had been done instead of an amendment to an existing contract.

To assist departments in composing an amendment, we have placed a new Contract for Professional Services Amendment form on our web site. There are also instructions included with the form. Please use this form when an amendment is necessary. This should help the University comply with the auditors' recommendation for consistency.

To find the Amendment form go to Purchasing's web site <http://purchserv.finop.umn.edu>, then choose Purchasing Professional Services, then choose Instruction for Amending Existing Contracts and Contract for Professional Services Amendment Form.

Amendments are required for sponsored and nonsponsored funds used on CFPS.

The third finding relates to vendor selection documentation and demonstration of reasonable price. This finding is "significant."

All Contracts for Professional Services for \$25,000 or more, which have not enlisted a competitive process, must have accompanying documentation which adequately explains (1) how the contractor was selected from all available contractors and (2) how the department has determined that the cost for this contractor is reasonable.

Departments submitting contracts of \$25,000 or more which have not followed a competitive process and do not have the accompanying documentation will be returned to the department with a request to supply the missing information.

We strongly encourage departments to do a Request for Proposal for contracts that are estimated to be \$25,000 or

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New Routing for Contracts for Professional Services

Beginning March 1, 1999, Contracts for Professional Services (CFPS) using sponsored funds will be sent by Sponsored Projects Administration (SPA) to Purchasing for final review and approval.

Departments will still send all CFPS to Payroll just as they do now. The routing change will be invisible, except that it will take two to three days longer for the contracts to be returned to the departments.

In the past, SPA, (formerly ORTTA) retained an original and sent the pink and yellow copies back to the departments. On March 1, following SPA's review, these contracts will be forwarded to purchasing who will do the formal document review and approval and send the copies to the department. The original and any payment documents will be returned to SPA.

This step is necessary, since SPA's approval is based on whether or not the expenditure is appropriate for the specific sponsored account. Purchasing is charged with document review to insure that the department has followed policies and procedures pertaining to CFPS. This document review consists of several areas. Some of the common areas of concern in the review are:

- Is the description of work complete?
- Were CFPS approved before the contractor begins work?
- Do CFPS \$25,000 and more have a basis for selection and reasonable price attached to the contract?
- Is a basis for cost estimate included?
- Are the departmental approvals complete?
- Have any of the terms and conditions been altered?

Contracts are returned to the department when information is incomplete or incorrect. Contracts in which the University's terms and conditions have been altered will require careful review. Alternative contracts in excess of \$25,000 must be reviewed and approved by General Counsel.

by Jane Thomas
Purchasing Services

Changes in Animal Use Certification Procedures

Beginning March 1, 1999, all new personnel hired to work with vertebrate animals at the Twin Cities campus of the University of Minnesota will be required to attend an Institutional Animal Care and Use Committee orientation seminar. This will replace the previous system of reading the Animal Care and Use Manual and signing a certification statement. All personnel on a protocol must attend a seminar before the protocol receives final approval.

Seminars will last approximately 1 1/2 hours. Seminars for March will be held on the Minneapolis Campus in the Phillips-Wangensteen Building (PWB) 2-152, Tuesday, March 2 at 10:15 a.m., Wednesday, March 10 at 2 p.m. and Tuesday March 23 at 10:15 a.m., and on the St. Paul Campus in B26 Classroom Office Building Friday March 5 at 10 a.m. Seminar schedules will be posted on the web at <http://www.ahc.umn.edu/rar/Seminars.html> or obtained by calling the IACUC office at 626.5654. Contact Dale Cooper at 624.5462 or coope019@tc.umn.edu if you or a staff member are unable to attend a scheduled seminar.

While only new university employees using animals are required to attend these seminars, *any currently certified animal user may attend*. This is a good means of keeping your laboratory current on animal use guidelines. Students who use animals as part of a classroom activity do not need to attend this seminar, however, they must meet the requirements specified in Appendix E of the Animal Usage Form. The orientation program will be phased in at other campuses.

Dale M. Cooper, DVM, MS, DACLAM
Associate Program Director, Office of Regulatory Affairs

New Horizons Institute for Technology Research

Resource Opportunity

New Horizons Institute for Technology Research (NHI) is a Minnesota chartered, public, charitable, nonprofit corporation; its mission is to stimulate use of University research.

The University of Minnesota has agreed to enter into a one-year trial partnership with NHI to link faculty doing research with community and industrial partners. An experienced advisory group will provide project feasibility analytical support for proposed research projects. During early-stage planning of research projects, NHI will contribute knowledge-based, innovative, entrepreneurial support, and planning grants for technical assessments, definition of community needs and opportunities, and market opportunity analyses.

NHI invites investigators to join in this start-up effort to provide resources to researchers looking to accelerate the commercial use of their research. Please submit a brief e-mail summary of the research proposed, or underway, to arileynhi@compuserve.com, or write or call Albert E. Riley, Executive Director, New Horizons Institute for Technology Research, 6 Haverhill on Auburn, Rolling Meadows, IL 60008; 847.991.2700, fax 847.397.6147.

Resulting partnerships will become a link between the University of Minnesota research establishment and Minnesota communities, and will provide resources to simplify and expand investigator opportunities. This one-year, trial program will demonstrate the capacity of NHI and the University to identify suitable research proposals, provide the needed resources and entrepreneurial support, and confirm the usefulness of these additional resources to research faculty.

Contracts for Professional Services

(continued from page 4)

more. Purchasing can assist you in this process. Call 612.624.2095.

Aside from the audit findings, we have two other concerns.

Contracts are being received in Purchasing with the signature of the contractor on a separate attached fax. If you use this method of obtaining the contractor's signature, *be sure to note on the contract that the contractor faxed both pages of the form AND both pages of the terms and conditions.*

Also, please review the "FY99 Chart of Accounts" before assigning object codes to your contracts. This year, con-

sulting is separated from other professional services. If you are hiring a consultant (advisory services) use the 7200 series. If you are hiring a Professional Service other than a consultant (hands-on product expected) you should be using the 7201 series. Currently, Purchasing reviews the contracts and attempts to correct the misassigned object codes. However, we feel that departments can do this more accurately.

Questions regarding Contracts for Professional Services can be directed to Jane Thomas at 612.624.2095 or e-mailed to j-thom@cafe.tc.umn.edu.

by Jane Thomas
Purchasing Services

Important Information About Proposal Submission

National Science Foundation

Because of significant changes in NSF grants submission and the use of FastLane, this will be a regular feature for the next few months.

Proposal Submission Using FastLane

Beginning May 3, 1999, all unsolicited proposals to the National Science Foundation's Directorate for Biological Sciences (BIO) *must* submit the following proposal forms via FastLane: the proposal cover page; the project summary; and the BIO proposal classification form (PCF). BIO *strongly recommends* that the entire proposal be submitted electronically. The entire announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9983>.

Mailing FastLane Proposal Original Documents

Sponsored Projects Administration has been informed by the FastLane Office at NSF that they will *no longer* accept the original numbered cover sheet, signed certification page, and other original documents if sent by FedEx. These documents are to be sent by first class mail and *must* arrive at NSF within five (5) working days after the original FastLane submission. Only exceptions as specified in the original program announcement are allowable.

Proposal Status

Beginning in February 1999, the FastLane Proposal Status Module will have additional information (such as specific post-panel callback dates or estimated decision dates for a particular group of proposals) that will be posted by NSF Program Officers. We encourage PIs and Sponsored Research Offices to use this FastLane feature for routine information.

Questions about the substance of the proposal and the scientific review should, as always, be directed to the Program Officers in the relevant programs. Procedural and technical questions about these upcoming changes should be directed to the Information and Automation Resources Unit, Directorate for Biological Sciences at biofl@nsf.gov. Further information about the Directorate for Biological Sciences, staff, and related programs can be found on the Directorate Website at <http://www.nsf.gov/bio/>.

Project Reporting System

As of October 1, 1998 the National Science Foundation requires all Principal Investigators to use the new Project Reporting System format to submit annual and final project reports. PIs *must* transmit these reports via FastLane. Reports that have been submitted on paper are being returned with instructions that submission will *only be accepted* via FastLane.

Post Award Actions

Effective May 3, 1999, Grantee Post-Award notifications to NSF and requests for approval by NSF that are supported by FastLane will only be accepted in that manner. This requirement means that *it is very important* to request no-cost extensions in a timely manner because we will not be allowed to submit a letter to the program officer to grant an exception when the deadline has passed. See the December 1998 *Research Review* article regarding no-cost extension requests for details and the FastLane web page at <http://www.fastlane.nsf.gov/> for a complete set of FastLane supported functions.

Please Note

When not submitting proposals through FastLane, National Science Foundation proposals *must be submitted* on the current NSF forms which are included in the Grant Proposal Guide NSF 99-2, dated October 1998 (replacing NSF 98-2).

If you fail to use the proper forms, it is possible that your proposal could be turned down or that you could be *requested to resubmit the full proposal* using the appropriate NSF forms.

Current NSF forms may be accessed through EGMS at <http://www.ortta.umn.edu> or from NSF at <http://www.nsf.gov/pubsys/index.htm>. ORTTA also has a limited number of hard copies; call 624.0061.

See another important reminder about FastLane submission on page 12 of this issue.

National Science Foundation Fiscal Year 2000 Budget

The National Science Foundation (NSF) has outlined a record budget request for fiscal year 2000 amounting to nearly \$4 billion. President Clinton has called for a 6.9 percent increase in NSF's research related activities, and a 5.8 percent overall increase for the agency in the proposed new budget sent to Congress on February 1, 1999.

NSF will increase investments by \$146 million in new research and in much improved high-end computing capabilities. About \$110 million is planned for fundamental IT research including: design and development of accessible, reliable, fault tolerant software systems; human-computer interactions; information management; high-end computing, including advances in modeling and simulation; and other long-term research including socioeconomic and workforce impacts of IT. Another \$36 million is planned to enhance the supercomputing infrastructure for the academic research and education communities.

In the new budget, NSF will also invest \$50 million for research in biocomplexity as part of a broader emphasis on biocomplexity in the environment, an agency-wide coordinated activity in environmental science, engineering and education. At the heart is understanding the complex interdependencies among living organisms and the environments that affect, sustain, and are modified by them. Research will cover three overlapping and highly interactive areas: global and environmental change, biodiversity and ecosystems dynamics, and environmental and the human dimension. Core research efforts will focus on the idea that research on individual components of environmental systems provides only limited information about their behavior as whole systems.

NSF continues to emphasize education for the future. Among NSF's educational priorities is an investment in a national science, mathematics, engineering and technology education digital library and related activities. This is a national resource facility to link K-16 schools, academic institutions, students, teachers and faculty to standards-based educational materials and learning tools. NSF will also continue innovative efforts to place undergraduate and graduate students in K-12 classrooms to assist teachers with content, while exposing and preparing the college students to the needs of K-12 education.

Lastly, NSF will continue support for Arctic research programs, invest in upgrades to polar aircraft, continue substantial support to plant genome research, and maintain strong commitment to the experimental program to stimulate competitive research (EPSCoR). Also, NSF will invest \$25 million for a new group of science and technology cen-

ters to explore interdisciplinary research problems and to support innovative efforts to integrate research and education.

The complete press release may be accessed at <http://www.nsf.gov/cgi-bin/getpub?pr995>. Please send questions and comments to webmaster@nsf.gov.

from NSF Custom News Service

National Science Foundation National Medal of Science

The President's Committee on the National Medal of Science is accepting nominations for the year 2000 award.

The National Medal of Science was established by the 86th Congress in 1959 as a Presidential Award to be given to individuals "deserving of special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical, or engineering sciences." In 1980, Congress expanded this recognition to include the social and behavioral sciences. A committee of 12 scientists and engineers is appointed by the President to evaluate nominees for the award.

Since its establishment, the National Medal of Science has been awarded to 362 distinguished scientists and engineers. There are numerous younger American scientists and engineers, many of them women and minorities, now reaching the point where their contributions are worthy of recognition. The Committee asks for your assistance in identifying them.

The submission deadline for nominations and supporting information is **May 31, 1999**. Nomination procedures and guidelines, as well as instructions for submitting an electronic nomination, renomination, or support letter, may be found at <http://www.nsf.gov/pubs/1999/nsf9954/nsf9954.htm>. Questions may be directed to Susan E. Fannoney, Program Manager, President's Committee on the National Medal of Science, 4201 Wilson Boulevard, Arlington, VA 22230; 703.306.1096.

Rhonda Drayton and Guillermo Sapiro, both assistant professors in the department of Electrical and Computer Engineering are among this year's awardees.

Royalty Income

According to an annual survey released last month by the Association of University Technology Managers (AUTM), research universities in the U.S. earned more than \$446 million in royalties from their inventions in FY97, a 33 percent increase over 1996. The survey included responses from 132 universities, some of which are listed below.

	Adjusted Royalties Received	Licenses Generating Royalties	Patents Issued	Start-Up Companies Formed
U of California System	61,280,000	528	206	13
Columbia	46,105,192	201	43	4
Stanford	34,014,090	272	64	15
Florida State	29,901,112	11	10	1
MIT	19,860,549	255	134	17
Wisconsin	17,172,808	133	69	2
Harvard	13,402,273	232	39	1
University of Washington	11,478,605	142	34	25
State University of New York	7,606,787	104	40	5
Iowa State	6,932,484	186	38	6
Rutgers	6,489,874	191	25	7
Johns Hopkins	4,686,519	103	37	3
Cal Tech	4,056,829	45	40	9
Texas A&M System	4,040,169	112	21	4
Minnesota	3,564,808	137	66	6
North Carolina State	3,164,795	42	24	1
Ohio State	2,232,671	30	27	2
Utah	2,209,506	56	35	6
Pennsylvania	2,136,000	65	54	4
Purdue	1,775,867	182	33	2
Michigan	1,708,939	83	52	6
Duke	1,520,000	n/a	31	0
Virginia Tech	1,159,224	57	22	1

from The Chronicle of Higher Education
January 8, 1999

National Institutes of Health

New Addresses for NIDA and NIMH

Effective February 1, 1999, the National Institute on Drug Abuse (NIDA) and the National Institute of Mental Health (NIMH) each moved to a new location.

Telephone numbers for most offices and divisions will remain the same. Room numbers, mail stop codes at the new locations, and other information updates, will be published on NIDA's home page at <http://www.nida.nih.gov>, or on NIMH's home page at <http://www.nimh.nih.gov>.

The new address for NIDA:

National Institute on Drug Abuse
National Institutes of Health
6001 Executive Boulevard
Bethesda, MD 20892
Bethesda, MD 20817 (for courier or overnight service)

The new address for NIMH:

National Institute of Mental Health
National Institutes of Health
6001 Executive Boulevard, Room 8184
MSC 9663
Bethesda, MD 20892-9663
Bethesda, MD 20817 (for courier or overnight service)

What's New in Grants Management

an index to changes and announcements

March 1999

(month 9 of UM fiscal 1999)

SPA Update 9918 - Revised sections of *Managing Sponsored Projects*

Notice issued: 02/01/99

Supersedes: 06/30/98 version

Effective date: 02/01/99

Change:

Several sections of *Managing Sponsored Projects at the University of Minnesota* have been revised. A complete list of changes is available on the "Today's News" and "Managing Sponsored Projects (manual)" pages of ORTTA's website (www.ortta.umn.edu).

Action to take:

Print out these pages and add or substitute them for the appropriate pages in the manual.

Information Requests

This is to remind you that any requests for research-related information made under the Freedom of Information Act (FOIA) or the Minnesota Government Data Practices Act (MGDPA) must be made in writing to Susan McKinney in the Records and Information Management Office. Contact names for requests for: academic records, employment or salary verification, contract or bid awards, or media requests may be found on the Record Management and Information website at <http://recmgmt.finop.umn.edu/procedures.html>.

New Editor for *Research Review*

Effective February 12, 1999, Bruce Erickson joined ORTTA as the new editor of the *Research Review*. Erickson, a graduate of St. Olaf College in psychology and political science, formerly worked as a program advisor for the State of Minnesota, Department of Human Services, writing newsletters and other publications for their Child Support Enforcement Division. He also handled media and general public questions about child support issues. Erickson may be reached at 612.625.2354, bruce@ortta.umn.edu.

Research Subjects Protection Program

IRB: Human Subjects Committee

The Institutional Review Board (IRB) has adopted the new, revised Expedited Review Categories. Researchers who plan to invoke category 2 for blood draw should consult the IRB web page for guidance on inclusion and exclusion of subjects.

Categories of Research that may be reviewed by the Institutional Review Board through an Expedited Review Procedure.

Applicability

- A. Research activities that 1) present no more than minimal risk to human subjects, and 2) involve only procedures listed in one or more of the following categories, may be reviewed by the Institutional Review Board (IRB) through the expedited review procedure¹ authorized by 45 CFR 36.110 and 21 CFR 56.110. The activities listed should not be deemed to be of minimal risk simply because they are included on this list. Inclusion on this list merely means that the activity is eligible for review through the expedited review procedure when the specific circumstances of the proposed research involve no more than minimal risk to human subjects.
- B. The categories in this list apply regardless of the age of subjects, except as noted.
- C. The expedited review procedure may not be used where identification of the subjects and/or their responses would reasonably place them at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, insurability, reputation, or be stigmatizing, unless reasonable and appropriate protections will be implemented so that risks related to invasion of privacy and breach of confidentiality are not greater than minimal.
- D. The expedited review procedure may not be used for classified research involving human subjects.
- E. IRBs are reminded that the standard requirements for informed consent (or its waiver, alteration, or exception) apply regardless of the type of review—expedited or convened—utilized by the IRB.
- F. Categories one (1) through seven (7) pertain to both initial and continuing IRB review.

Research Categories

1. Clinical studies of drugs and medical devices only when condition a or b is met.
 - a. Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: research on marketed

drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.)

- b. Research on medical devices for which i) an investigational device exemption application (21 CFR Part 812) is not required; or ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.
2. Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:
 - a. From healthy, nonpregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an eight week period and collection may not occur more frequently than two times per week; or
 - b. From other adults and children², considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an eight week period and collection may not occur more frequently than two times per week.
 3. Prospective collection of biological specimens for research purposes by noninvasive means. Examples: a) hair and nail clippings in a nondisfiguring manner; b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction; c) permanent teeth if routine patient care indicates a need for extraction; d) excreta and external secretions (including sweat); e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gum base or wax or by applying a dilute citric solution to the tongue; f) placenta removed at delivery; g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor; h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques; i) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth

washings; j) sputum collected after saline mist nebulization.

4. Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications). Examples:
a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy; b) weighing or testing sensory acuity; c) magnetic resonance imaging; d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography; e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.
5. Research involving materials (data, documents, records, or specimens) that have been collected or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (Note: some research in this category may be exempt from HHS regulations for the protection of human subjects 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt).
6. Collection of data from voice, video, digital, or image recordings made for research purposes.
7. Research on individual group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (Note: some research in this category may be exempt from the HHS regulations for the protection of human subjects 45 CFR 46.101(b)(2). This listing refers only to research that is not exempt).
8. Continuing review of research previously approved by the convened IRB as follows: a) where i) the research is permanently closed to the enrollment of new subjects; ii) all subjects have completed all research-related interventions; and

iii) the research remains active only for long-term follow-up of subjects; or b) where no subjects have been enrolled and no additional risks have been identified; or c) where the remaining research activities are limited to data analysis.

9. Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories two through eight do not apply but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and no additional risks have been identified.

¹ An expedited review procedure consists of a review of research involving human subjects by the IRB chairperson or by one or more experienced reviewers designated by the chairperson from among members of the IRB in accordance with the requirements set forth in 45 CFR 46.110.

² Children are defined in the HHS regulations as "persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law of the jurisdiction in which the research will be conducted." 45 CFR 46.202(a).

Research Information for Projects Involving Fairview Resources

Updates

In the February issue, *Research Review* printed a brief article entitled, Research Information for Projects Involving Fairview Resources. Following are updates to that article.

Indirect cost rates: The University and Fairview have added an addendum to their Indirect Cost Rate Agreement. The addendum provides for a provisional Fairview IDC budgeting rate of thirty percent (30% MTDC) for periods beginning on or after January 1, 2001.

Investigational Pharmacy Service: In the original article included the e-mail address of Darlette Luke in Investigational Pharmacy Service. She has recently changed her office location, and her new e-mail address is dluke1@fairview.org.

Update to Confidentiality of Research Data

As noted in the February 1999 issue of *Research Review*, Congress passed the Fiscal Year 1999 Omnibus Appropriations bill containing a rider requiring federal agencies to ensure that all data produced under research grants “be made available to the public through the procedures established under the Freedom of Information Act (FOIA).”

The rider required the Office of Management and Budget (OMB) to modify its Circular A-110 regarding the confidentiality of research data under the “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations.”

The OMB published their proposed revisions in the February 4, 1999 issue of the *Federal Register*. These proposed revisions implement the new requirements by providing that, after publication of research findings used by the federal government in developing policy or rules, the research results and underlying data would be available to the public in accordance with FOIA. Accordingly, after obtaining and reviewing the requested data, the agency will have to determine whether any of the FOIA exemptions, which permit an agency to withhold requested records, would apply to all or some of the data. For example, FOIA exempts “personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.”

If the federal awarding agency obtains the data solely in response to a FOIA request, the agency may charge the requester a reasonable fee equaling the full incremental cost of obtaining the data. This fee should reflect costs incurred by the agency, the recipient, and applicable subrecipients. This fee is in addition to any fees the agency may assess under FOIA.

Interested parties, including 23 members of Congress and the National Academy of Sciences, sent letters to OMB director Jack Lew with their concerns about this legislation and asked that the administration support H.R. 88 introduced by Rep. George Brown from California that would repeal this provision. The University of Minnesota’s General Counsel’s office is also preparing a response to OMB on the proposed revisions.

OMB is taking comments on the proposed revisions until April 5, 1999. Please address comments on the OMB revisions to F. James Charney, policy analyst for OMB, Room 6025, New Executive Office Building, Washington D.C. 20503 or send email comments to fcharney@omb.eop.gov. For further information on how to comment, please contact Mr. Charney at (202) 395-3993. OMB’s web site address is <http://www.whitehouse.gov/WH/EOP/omb>.

Sponsored Projects Administration Deadline for Proposal Delivery Update

To provide better service to University faculty and staff, Sponsored Projects Administration (SPA) staff have made several changes to their proposal delivery policies.

To receive full service:

- Complete proposals that are to be delivered to the sponsor via *express courier* are due at SPA by 1 p.m. on the day they are to be postmarked or sent out;
- Complete proposals that are to be delivered to the sponsor via *local courier* are due at SPA by 5 p.m. the day before they are to be delivered.

“Full service” means that SPA staff will check, correct, sign, pack, and arrange for delivery of the proposal by the appropriate courier. Proposals receiving full service *must be brought to SPA in their entirety*. A complete proposal includes the Proposal Routing Form, all the forms and documents specified by the sponsor, and all the necessary copies, including one full copy for SPA.

However, principal investigators may choose to pack and mail their own proposals. In these cases, SPA staff *do not need to see the technical sections of the proposal*, although principal investigators must remember to send complete copies to the grant administrator within one week after submission. In addition, SPA *only needs two copies* of all the administrative sections (one for their files and one to sign). If the proposal arrives before the above referenced deadline, SPA staff will make corrections and call the principal investigator when the proposal is ready to be picked up. If the proposal arrives after the deadline, the principal investigator must make his or her own corrections.

Important Reminder about NSF FastLane Proposals

Electronic FastLane proposals are due at SPA **three work-ing days** before they are due at NSF. The hard copy is due at SPA by 5 p.m. the day before it is to be submitted. These three days are *essential* because the Internet may experience slowdowns or other technical problems that require multiple attempts to send the proposal successfully. In addition, because of the electronic FastLane process, SPA staff cannot make most corrections – they must be made by the principal investigator.

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

Anderson, R.J., Keller, C.E., Karp, J.M. (eds) Enhancing diversity: educators with disabilities. Washington, DC: Gallaudet University Press (1998).

McNergney, R., Keller, C. (eds) Images of mainstreaming: educating students with disabilities. Source Books on Education Volume 53. New York: Garland Publishing (1999).

Shao, L., Nietzsche in China. New York, 1999: Peter Lang Publishing.

Craig, W.J. The internet aids community participation in the planning process. *Computers, Environment and Urban Planning* 22.4 (1998): 393-404.

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**Please send your new citations to
tove@ortta.umn.edu.**

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More Information

To generate copies of NIH and NSF application forms, please go to,

EGMS at <http://www.ortta.umn.edu>, or to NIH at <http://www.nih.gov/grants/forms.htm>, or to NSF at <http://www.nsf.gov/pubsys/index.htm> (You may call 612.624.9004 if you need help).

For funding searches

please contact the
Office of the Vice President for Research
612.625.7585; facgrant@gold.tc.umn.edu,
<http://www.research.umn.edu/research.html>.

■ USDA, NSF, DOE Rice Genome Sequencing Project

The U.S. Department of Agriculture, the National Science Foundation, and the U.S. Department of Energy are soliciting proposals for the United States Rice Genome Sequencing Project. The purpose of this interagency program is to initiate systematic sequencing of the genome of rice in the United States as part of an international effort that includes the Rice Genome Program of Japan. The ultimate goal is to sequence the entire rice genome as a model monocot (grass) species.

Up to three awards will be made for up to three years. Eligible applicants are a broad community of scientists at U.S. institutions, including any State agricultural experiment station, college, university, other research institution or organization, federal agency, national laboratory, private organization, corporation, or individual. A single organization or individual must accept overall management responsibility. Currently, a total of \$4 million is available to fund this program.

The application deadline is **May 4, 1999**. The guidelines and application are available on the USDA web site at <http://www.reeusda.gov/crgam/nri/howto/applkit/applkitdoc.htm>. Paper copies may be obtained by sending an e-mail with the applicant's name, complete postal mailing address, telephone number, and materials requested to psb@reeusda.gov. Or applicants may write or call the Proposal Services Unit, Office of Extramural Programs, Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, STOP 2245, 1400 Independence Avenue SW, Washington, DC 20250-2245, 202.401.5048.

■ Department of Defense National Security Education Program

The mission of the National Security Education Program (NSEP) is to lead in developing the national capacity to educate U.S. citizens to 1) understand foreign cultures; 2) strengthen U.S. economic competitiveness; and 3) enhance international cooperation and security. The objectives of the program are:

- to equip Americans with an understanding of less commonly taught languages and cultures and enable the nation to remain integrally involved in global issues related to national security;
- to build a critical base of future leaders in both government service and in higher education who have cultivated international relationships and worked and studied alongside experts of other countries;
- to develop a cadre of professionals with more than the traditional knowledge of language and culture who can use this ability to help the U.S. make sound decisions on and deal effectively with global issues relating to national security; and
- to enhance institutional capacity and increase the number of faculty who can educate U.S. citizens toward achieving these goals.

The three components of NSEP are:

Scholarships to U.S. undergraduate students for study abroad. Juniors and seniors may apply for an academic term or year, freshmen and sophomores for intensive summer or academic terms abroad.

Fellowships to U.S. students enrolled in or admitted to graduate degree programs to develop expertise in the languages and cultures of less commonly studied countries.

Awards to U.S. institutions of higher education to develop or strengthen their capacities to educate U.S. citizens in critical languages, areas, and international fields.

Preliminary proposals are due **April 9, 1999**. The complete announcement, application information, forms, and guidelines may be downloaded from <http://www.dtic.mil/defense/links/pubs/nsep>. Hard copies may be obtained by writing to the National Security Education Program, Institutional Grants, Rosslyn P.O. Box 20010, 1101 Wilson Boulevard, Suite 1210, Arlington, VA 22209-2248. Contact persons are listed in the announcement.

■ Environmental Protection Agency EMPACT Grants

The Environmental Protection Agency announces a program entitled Environmental Monitoring for Public Access and Community (EMPACT). This program takes the form of partnerships between local and state governments, research institutions, non-governmental organizations, the private sector, or the federal government to assist communities to provide sustainable public access to environmental monitoring data and information that are clearly-communicated, time-relevant, useful, and accurate.

The application deadline is **April 8, 1999**. For additional information contact Dr. Barbara Karn, 202.564.6820, karn.barbara@epamail.epa.gov; or Dr. Charlotte Cottrill, 202.564.6771, cottrill.charlotte@epamail.epa.gov. The complete announcement may be accessed on the net at <http://www.epa.gov/empact>.

■ NSF, NASA, NOAA, ONR U.S. Weather Research Program

The U.S. Weather Research Program (USWRP) is an interagency effort directed at performing the research and technology transfer needed to improve the delivery of weather services to the nation. Participating agencies are the National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), and the Office of Naval Research (ONR). The overarching objective is to improve the specificity, accuracy, and reliability of weather forecasts for disruptive, high impact weather. Research will consist of:

- technique development associated with measurements, observational strategies, data assimilation, and numerical models;
- fundamental studies to improve understanding and to develop improved parameterizations of physical processes;
- demonstrations of improved prediction capabilities in research mode.

In addition to physical sciences research, limited opportunities exist for support of research focussed on behavioral, economic, and societal research aspects of USWRP.

It is strongly suggested that proposed activities complement research being conducted within national laboratories and centers. NSF and NOAA especially encourage submis-

sion of collaborative research proposals involving both traditional NSF grantees and NOAA researchers. Investigators may appear on only **ONE** proposal as a principal or co-principal investigator. It is expected that approximately \$1 million will be available to support the research.

The application deadline is **May 11, 1999**. The complete announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9970>. Names, telephone numbers, and addresses of contact persons for each sponsoring agency are listed in the announcement.

■ Department of Education Fund for the Improvement of Postsecondary Education Postsecondary Education—Learning Anytime Anywhere Partnerships CFDA 84.339A; 84.339B

The Fund for the Improvement of Postsecondary Education (FIPSE) has announced the Learning Anytime Anywhere Partnerships (LAAP). The purpose of these partnerships is to enhance the delivery, quality, and accountability of postsecondary education and career-oriented lifelong learning through technology and related innovations. Funds must be used to conduct one or more of the following:

- a) develop and assess model distance learning programs or innovative educational software
- b) develop methodologies for the identification and measurement of skill competencies
- c) develop and assess innovative student support services
- d) support other activities consistent with the statutory purpose of this program.

The range of awards is \$100,000 to \$500,000 a year, averaging \$333,333 per year. An estimated 25-30 awards will be made.

A preapplication is requested by **April 2, 1999**, with final proposals due **June 18, 1999**. For further information contact the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education, 400 Maryland Avenue SW, Room 3100, ROB-3, Washington, DC 20202-5175.358.3041. To order applications call 202.708.5750 or submit your name, the name of the competition, and your postal mailing address to laap@ed.gov.

The application text is available from the internet at <http://www.ed.gov/offices/OPE/FIPSE/LAAP>.

American Cancer Society Institutional Research Grant

American Cancer Society Institutional Research grant applications are being accepted until **April 1, 1999**. The grant is for instructors and assistant professors who have no independent national funding and who are engaged in cancer-related research.

Cancer-related research includes the analysis of developmental biology, gene regulation, or alternation of intracellular or extracellular processes, which may lead to an improved understanding or therapy of potential or actual oncogenic events in prokaryotic or eukaryotic cells.

Funding is available up to \$20,000. Applications may be obtained by calling LeAnn Micek, Bone Marrow Transplantation, Pediatrics; 612.626.1926, micek003@maroon.tc.umn.edu.

University of Minnesota Minnesota Obesity Center Pilot and Feasibility Program

The Minnesota Obesity Center is requesting grant proposals for the 1999 Pilot and Feasibility Program. The goal is to provide seed money to attract new investigators, both junior or established, into the study of obesity.

Two applications will be funded at a maximum of \$20,000 per year for two years. Funding for the second year is dependent upon the Center receiving continued funding. Junior investigators beginning their research careers focusing on obesity, or senior investigators for whom obesity research is a change of direction, are eligible to apply.

Recipients will have access to additional technical support through the Core System of the Minnesota Obesity Center. The four research cores are 1) the basic mechanisms core, 2) the clinical populations/assessment core, 3) the epidemiology and intervention core, and 4) the human metabolic studies core.

Examples of services provided include DNA sequencing at minimal cost; access to the Eating Disorders Research Clinic; services provided by the Data Collection and Services Center, the Nutrition Coordinating Center, and the Laboratory of Physical Hygiene; and state-of-the-art methods for studying energy metabolism and nutrient partitioning at the whole-body level in humans.

Interested investigators are asked to submit a single page letter of intent by **April 1, 1999**. This letter should include

a statement of the hypothesis, a paragraph of background information, a description of the experimental design, and a summary of the proposed methods. From these letters, five applicants will be selected to submit a full proposal.

Full proposals will be **July 1, 1999**. Letters of intent should be mailed to, and further information may be obtained from, Kate Welch, Program Coordinator, Minnesota Obesity Center, 1 Veterans Drive (#151), Minneapolis, MN 55417-2399; 612.727.5698, fax 612.727.5688, welch-012@maroon.tc.umn.edu.

Centers for Disease Control and Prevention Community Partners for Healthy Farming

The Centers for Disease Control and Prevention announces the availability of funds for a cooperative agreement program for Community Partners for Healthy Farming. Applicants should develop a research proposal which is predicated on an active partnership between experienced researchers, communities, agricultural workers, management, and other stakeholders in the planning, implementation, and evaluation of intervention known agricultural injuries, illness, or hazards.

Approximately \$850,000 is available to fund five to seven awards, averaging \$145,000 and ranging from \$45,000 to \$180,000, for a 12-month budget period of up to four years.

A letter of intent must be submitted by **March 23, 1999** to Sheryl L. Heard, Grants Management Specialist, Grants Management Branch, Procurement and Grants Office, Announcement 99039, Centers for Disease Control and Prevention, 2920 Brandywine Road, Mail Stop E-13, Atlanta, GA 30341.

The full proposal will be due **April 23, 1999**. Information is available at <http://www.cdc.gov>.

National Science Foundation

Interagency Education Research Initiative

The Interagency Education Research Initiative (IERI), co-sponsored by the National Science Foundation, the U.S. Department of Education, and the National Institutes of Health, will build a knowledge base for improving educational practice by a) fostering innovative research on basic learning, teaching, and organizational mechanisms; and b) developing and studying sustainable and scalable interventions in education.

The long-term goal is to develop the knowledge and experimental methods that will allow for the implementation and evaluation of large-scale educational interventions, which will in turn, inform educational policy and practice. The focus area for FY99 proposals will be research directed toward understanding how to make substantial improvements in:

- school readiness for learning reading and mathematics
- K-3 learning in reading, mathematics, and science, and
- education of preK-12 mathematics, reading, and science teachers in content knowledge and science underlying cognitive development and learning.

Collectively, approximately \$30 million will be available, with no special cost sharing requirements. FastLane submission is required.

An optional letter of intent is requested by **April 1, 1999**. Full proposals are due **May 14, 1999**. The full announcement may be found at <http://www.nsf.gov/cgi-bin/getpub?nsf9984>.

Department of Health and Human Services

Office of Population Affairs

Family Planning and Population Research

The Office of Population Affairs requests applications for a grant under the family planning and population research program. Grants will be awarded for research in biomedical, contraceptive development, behavioral, and program implementation fields related to family planning and population. Applicants are encouraged to develop and propose analytic strategies for some, but not all, topics as follows: 1) estimates and characteristics of clients served and population in need; 2) patterns and trends in delivery of family planning services.

The purpose is not to collect original data, unless it can be demonstrated that appropriate data do not exist elsewhere.

Approximately \$300,000 to \$350,000 will be awarded for one year of a proposed five-year project, with the same amounts available for funding the remaining years. Only one grant will be made.

The application deadline is **April 12, 1999**. For technical information call 301.594.4012; for program information, call Eugenia Eckard, 301.594.4008. Requests for applications may be faxed to 301.594.5980 or e-mailed to opa@osophs.dhhs.gov, or write to the Office of Population Affairs, Grants Management Office, 4350 East-West Highway, Suite 200, Bethesda, MD 20814.

Presidential Awards for Excellence in Science, Mathematics & Engineering

The White House has established the Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM) program. The program, administered by the National Science Foundation, seeks to identify outstanding mentoring efforts and programs designed to enhance the participation of groups underrepresented in science, mathematics, and engineering. Nominations to honor such individuals and institutions are invited for the 1999 competition.

The award will be made to 1) an individual who has demonstrated outstanding and sustained mentoring and effective guidance to a significant number of students at the K-12, undergraduate, or graduate education level; or 2) to an institution that has enabled a substantial number of students underrepresented in science, mathematics, and engineering to successfully pursue and complete relevant degree programs. For postsecondary levels, these efforts must show that students have been successfully mentored to either the baccalaureate, master's, or doctoral degree level. The nominees must have served in such a role for at least five years.

A grant in the amount of \$10,000 will accompany the award along with a commemorative Presidential certificate. FastLane submission is encouraged.

The nomination deadline is **March 31, 1999**. The complete announcement may be found at <http://www.nsf.gov/cgi-bin/getpub?nsf9969>.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by SPA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at SPA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
January 1999	379	\$ 86,381,908
Awards Processed		
January 1999	218	29,170,229
Proposals Submitted		
July 1998 - January 1999	2,288	448,653,921
Awards Processed		
July 1998 - January 1999	1,826	205,523,559
Proposals Submitted		
July 1997 - January 1998	2,323	455,518,053
Awards Processed		
July 1997 - January 1998	1,720	197,415,130

Structural Properties of the Regulatory Membrane Peptide

Christine B. Karim, Biochemistry, Medical School
American Heart Association, Inc.
\$260,000 - 1/1/99-12/31/99

Pathogenesis of Sexual Transmission of Primate Lentiviruses

Ashley T. Haase, Microbiology
NIH, NIAID
\$406,582 - 9/1/98-8/31/99

T-Cell Receptor Signaling in Tolerant CD4+ Cells

Marc K. Jenkins, Microbiology
Traci L. Zell, Microbiology
Cancer Research Institute
\$69,000 - 1/1/99-12/31/00

Mechanisms of Topoisomerase Poisons

Hiroshi Hiasa, Pharmacology
NIH, NIGMS
\$238,786 - 1/1/99-12/31/99

A Study of Photodynamic Therapy for Non-Melanoma Skin Cancers with Benzoporphyrin Monoacid Ring

Whitney Tope, Dermatology
Peter Lee, Dermatology
QLT Phototherapeutics, Inc.
\$127,440 - 10/15/98-4/14/01

Evaluation of Predictors of Recurrent Adenomas

Ronald C. McGlennen, Laboratory Medicine and Pathology
NIH, NCI
\$39,446 - 2/1/98-1/31/99

Integrin Expression in Renal Allografts: a Possible Indicator of Rejection

Suman Setty, Laboratory Medicine and Pathology
National Kidney Foundation, Inc.
\$2,408 - 7/1/98-6/30/99

Linezolid vs. Oxacillin Sodium/Dicloxacillin for the Treatment of Complicated Skin and Soft Tissue Infections

L.D. Sabath, Medicine
Pharmacia and Upjohn
\$42,132 - 10/20/98-3/31/99

Cell-Matrix Interaction and Control of Fibroblast Viability

Craig A. Henke, Medicine
American Lung Association
\$35,000 - 7/1/98-6/30/99

Prevention of Recurrent Venous Thromboembolism

Nigel Key, Medicine
Brigham and Women's Hospital
\$30,000 - 4/1/98-3/31/03

Transgenic Analysis of T-cell Autoimmune Arthritis

Daniel L. Mueller, Medicine
Arthritis Foundation, Minnesota Chapter
\$19,515 - 1/1/99-12/31/99

Effect of High-Sodium Diet on Arterial Compliance of Rats

Geza Simon, Medicine
Minnesota Medical Foundation
\$11,190 - 1/1/99-12/31/99

Correlations in Autosomal Dominant Ataxia

Christopher Gomez, Neurology
John H. Anderson, Otolaryngology
Gary W. Oehlert, Statistics
NIH, NINDS
\$231,798 - 8/1/98-7/31/99

Synaptic Activity and Blood Flow in Cerebellar Cortex

Costantin Iadecola, Neurology
NIH, NINDS
\$189,572 - 12/15/98-11/30/99

Toward the Molecular Diagnosis of Human Neuronal Migration Syndrome

Margaret E. Ross, Neurology
William B. Dobyns, Neurology
Minnesota Medical Foundation
\$11,000 - 1/1/99-12/31/99

The Role of Bone Morphogenic Proteins In Matrix Synthesis and Organization

Dean J. Aguiar, Orthopaedic Surgery
Theodore R. Oegema, Jr., Orthopaedic Surgery
Arthritis Foundation, Minnesota Chapter
\$19,948 - 1/1/99-12/31/99

Pathogenesis of the Otitis Media Continuum

Youngki Kim, Pediatrics
NIH, NIDCD
\$337,683 - 12/1/98-11/30/99

A Self-Learning Computer Based Program for Childhood Growth

David M. Brown, Pediatrics
Genentech Foundation
\$49,835 - 1/1/99-12/31/99

A Double-Blind Study of Paroxetine and Placebo in Treatment of Pathological Gambling

Suck Won Kim, Psychiatry
David Adson, Psychiatry
Smithkline Beecham Pharmaceuticals
\$120,000 - 6/1/98-11/30/99

Statistical Core for the Center for AIDS Research

James D. Neaton, Biostatistics
Northwestern University
\$121,379 - 9/1/98-8/31/99

Health Effects of Hazardous Air Pollutants among Inner Urban School Children

Ian A. Greaves, Environmental and Occupational Health
Environmental Protection Agency
\$530,911 - 10/1/98-9/30/01

Theory-Based Interventions for Smoking and Obesity

Robert W. Jeffery, Epidemiology
NIH, NINDS
\$624,568 - 1/20/99-12/31/99

New Moves: A School-Based Approach Towards Health Lifestyle

Dianne Neumark-Sztaine, Epidemiology
American Heart Association, Inc.
\$499,993 - 1/1/99-12/31/99

Impact of Geriatric Care on Drug Related Problems

Joseph Hanlon, Experimental and Clinical Pharmacology
Duke University
\$15,178 - 8/1/98-7/31/99

A Functional Genomics Program for Soybeans

Ernest Retzel, Microbiology
University of Illinois, Champaign-Urbana
\$190,290 - 10/1/98-9/30/99

Co-Carcinogenic Activity of Nitrosamine Metabolites

Lisa A. Peterson, Cancer Center
NIH, NCI
\$169,271 - 1/1/99-12/31/99

Indian Health Grant

Amos S. Deinard, Community University Health Care Center
Hennepin County
\$59,998 - 1/1/98-12/31/99

Kainate Receptor Antagonists for Treatment of Neuropathic Pain

Keith C. Kajander, Oral Sciences
Bearsden Bio, Inc.
\$78,355 - 7/1/98-6/30/99

High Resolution Genetic Maps for Cattle and Sheep

Craig W. Beattie, Veterinary Pathobiology
Leeson Alexander, Veterinary Pathobiology
U.S. Department of Agriculture
\$220,000 - 12/15/98-12/31/00

Shock-Tube Simulations of High-Altitude Breakup of Thickened Stimulants

Daniel D. Joseph, Aerospace Engineering and Mechanics
Gordon S. Beavers, Aerospace Engineering and Mechanics
Battelle
\$200,000 - 8/26/98-9/30/99

Analysis Of The X-38 V132 Flight Control System

Gary J. Balas, Aerospace Engineering and Mechanics
National Aeronautics and Space Administration
\$42,320 - 10/12/98-3/31/99

Development of Transferable Force Fields for PhaseEquilibria

J.I. Siepmann, Chemistry
National Science Foundation
\$63,668 - 12/15/98-11/30/99

Materials Evaluation and Mix Design Procedures For Cold In-Place Recycling of Asphalt

David E. Newcomb, Civil Engineering
St. of Minn., Department of Transportation
\$120,000 - 12/28/98-3/31/01

Repair of Fatigued Steel Bridge Girders with Carbon Filter

Carol K. Shield, Civil Engineering
Jerome F. Hajjar, Civil Engineering
St. of Minn., Department of Transportation
\$100,000 - 1/1/99-3/31/01

Pedestrian-Vehicle Collision Model for Traffic Calming

Gary A. Davis, Civil Engineering
St. of Minn., Department of Transportation
\$50,000 - 11/1/98-2/29/00

Evaluation of Life-Cycle Costs of Asphalt Concrete and Portland Cement Concrete Pavements

Mark B. Snyder, Civil Engineering
Concrete Paving Association of Minnesota
\$34,993 - 11/13/98-11/15/99

Scalable Parallel Algorithms for Irregular and Adaptive Computations

Youcef Saad, Computer Science
Vipin Kumar, Computer Science
University of California
\$192,000 - 10/21/98-10/31/01

Macromachined Microwave and Optical Integrated Circuits Design Methodologies for High Performance Communication Circuits and Packages

Rhonda Franklin Drayton, Electrical Engineering
National Science Foundation
\$200,000 - 8/1/98-7/31/02

Pine County Geologic Atlas

David L. Southwick, Geology and Geophysics
Carrie J. Patterson, Minnesota Geological Survey
Pine County Soil and Water Conservation
\$60,000 - 4/1/98-9/1/01

Codes, Systems and Graphical Models

Willard J. Miller, Mathematics
Fadil Santosa, Mathematics
National Security Agency
\$10,000 - 1/14/99-1/14/00

Process Control for the Pulp and Paper Industry

Perry Li, Mechanical Engineering
Shri Ramaswamy, Wood and Paper Science
Tappi Foundation
\$40,000 - 1/1/99-12/31/99

A Minnesota Scientific Workshop on the Fast Auroral Snapshot

Cynthia Cattell, Physics and Astronomy
Keith Goetz, Physics and Astronomy
National Aeronautics and Space Administration
\$12,500 - 9/1/98-12/31/98

Analysis of Aeration Alternatives at the Buford Dam, Georgia

John S. Gulliver, St. Anthony Falls Hydraulic Laboratory
Stanley Consultants, Inc.
\$26,561 - 9/8/98-9/16/98

Non-Indigenous Plants in the Northern Great Plains: Ecological Effects on Infestation and Control

Patrice A. Morrow, Ecology, Evolution and Behavior
USDI, Geological Survey
\$30,000 - 8/1/98-7/31/99

A Search for Three Rare, Endemic, Minnesota Mushroom Species

David J. McLaughlin, Plant Biology
St. of Minn., Department of Natural Resources
\$3,595 - 7/1/98-11/15/98

Fy99 State Economic Forecasts
 Thomas Stinson, Applied Economics
 St. of Minn., Department of Finance
 \$59,200 - 7/1/98-6/30/99

Farm Safety and Health Outreach
 John M. Shutske, Biosystems and Agricultural Engineering
 St. of Minn., Department of Agriculture
 \$100,000 - 2/1/98-6/30/99

Educating the Agricultural Community on Sustainable Agriculture
 Donald L. Wyse, Agronomy and Plant Genetics
 St. of Minn., Department of Agriculture
 \$200,000 - 11/15/97-6/30/99

Insect Response to Vegetational Diversity
 George Heimpel, Entomology
 U.S. Department of Agriculture
 \$160,000 - 12/15/98-12/31/01

A Functional Genomics Program for Soybean
 Nevin D. Young, Plant Pathology
 University of Illinois, Chicago
 \$147,138 - 10/1/98-9/30/99

Reducing Minnesota River Pollution from Lacustrine Soils
 John Moncrief, Soil, Water, and Climate
 Satish C. Gupta, Soil, Water, and Climate
 D. Ginting, Soil, Water, and Climate
 Legislative Commission on Minnesota Resources
 \$250,000 - 1/27/98-6/30/99

Diagnostic Genetic Markers for Fisheries at the Species and Subspecies Level
 Anne R. Kapuscinski, Fisheries and Wildlife
 St. of Minn., Department of Natural Resources
 \$40,000 - 7/1/98-6/30/00

Factors Associated with Farms Experiencing Wolf Depredations
 L. David Mech, Fisheries and Wildlife
 St. of Minn., Department of Agriculture
 \$25,000 - 6/15/98-6/30/99

Canada Goose Population Management and Ecology
 James A. Cooper, Fisheries and Wildlife
 City of Little Canada
 \$4,000 - 3/15/97-3/15/99

Institutionalizing 'Mission to Planet Earth' (MTPE) Data for Land and Environmental Management
 Thomas E. Burk, Forest Resources
 Shashi Shekhar, Computer Science
 Paul Bolstad, Forest Resources
 National Aeronautics and Space Administration
 \$268,000 - 3/1/98-10/31/99

White Pine Regeneration Research and Outreach
 Klaus J. Puettmann, Forest Resources
 St. of Minn., Department of Natural Resources
 \$5,000 - 5/12/98-9/30/98

Linking The LRT to the City: Hiawatha Districts
 Mary C. Vogel, Architecture
 Lance Neckar, Landscape Architecture
 St. of Minn., Department of Transportation
 \$50,000 - 8/1/98-8/31/99

Investigation of Moisture Performance of Basement Systems
 Louis F. Goldberg, Underground Space Center
 Owens Corning Fiberglass Corp.
 \$33,885 - 12/12/97-12/31/99

Evaluation of Medicaid 'Home and Community Based Services' Program
 K. Charlie Lakin, Educational Psychology
 Mary Hayden, Educational Psychology
 The Lewin Group (HCFA Prime)
 \$150,548 - 9/30/98-9/29/99

A Computer for Every Student Project
 Stanley L. Deno, Educational Psychology
 St. Paul Public Schools
 \$58,239 - 7/1/98-6/30/99

Process Evaluation for the Minnesota Self Determination Demonstration Project
 K. Charlie Lakin, Educational Psychology
 St. of Minn., Department of Human Services
 \$40,000 - 2/2/98-8/15/99

Strengthening Institutions Program
 James M. Brown, Work, Community and Family Education
 U.S. Department Of Education
 \$131,538 - 10/1/98-9/30/99

4 Hydroxylated Estrogens as Markers of Human Breast Cancer
 Mindy S. Kurzer, Food Science and Nutrition, CHE
 Susan G. Komen Cancer Foundation
 \$105,000 - 12/31/98-12/30/01

Special Studies and Analysis-Measurement of Phytoestrogens
 Mindy S. Kurzer, Food Science and Nutrition, CHE
 NIH, NCI
 \$21,150 - 9/30/98-8/31/99

Creating Healthy Work Organization
 Leslie A. Grant, Health Management and Policy
 Avner Ben-Ner, Carlson School of Management
 Richard D. Arvey, Carlson School of Management
 Centers for Disease Control
 \$240,022 - 8/1/98-7/31/99

Agricultural Literature Preservation Project
 Jo Ann DeVries, Library Administrative Services
 Marlys McGuire, Library Administrative Services
 Cornell University
 \$20,572 - 7/1/98-6/30/99

Office of Environmental Assistance Evaluation Surveys
 Rossana Armson, Urban and Regional Affairs
 St. of Minn., Office of Environmental Assistance
 \$15,850 - 5/8/98-5/1/99

Birch Lake Drill Hole Research Project
 Steven A. Hauck, Natural Resources Research Institute, Duluth
 Iron Range Resources Rehabilitation Board
 \$18,000 - 1/5/99-12/31/99

Minerals Data Base Project
 John J. Heine, Natural Resources Research Institute, Duluth
 St. of Minn., Department of Natural Resources
 \$4,600 - 2/19/98-6/30/98

A Proposal to Utilize Chemicals Isolated from Birch Bark
 Pavel A. Krasutsky, Natural Resources Research Institute, Duluth
 Robert M. Carlson, Chemistry, Duluth
 Minnesota Technology, Inc.
 \$70,000 - 7/1/98-6/30/99

Small Business Development Center
 M.L. Jensen, Natural Resources Research Institute, Duluth
 St. of Minn., Department of Trade and Economic Development
 \$207,600 - 1/1/99-12/31/99

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RESEARCH REVIEW

Office of Research and Technology Transfer
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April 1999

The University of Minnesota Can Accommodate Easily to the New NIH Modular Grant Program using EGMS

NIH recently announced that effective June 1, 1999 it will *require* that R01, R03, and R21 applications be submitted using the modular format for projects under \$250,000 total direct costs per year. R15 applications must use the modular format by May 25, 1999.

Preparing an application using the modular grant approach is different from what was used only two months ago at the last NIH deadline. It is extremely important that researchers planning to submit proposals to NIH take note of the following information.

It is extremely important that researchers planning to submit proposals to NIH take note of the following information.

When will NIH require modular applications?

- R15: May 25, 1999 receipt date
- R01, R03, and R21: June 1, 1999 receipt date

What are the benefits of a modular grant application?

Applicants only have to submit limited budget information in a narrative format at the time of proposal. NIH believes this change allows investigator, reviewers, and their staff to focus on the science rather than the cost of the project. Their goal was also to reduce the time it takes to review and award a grant from ten months to six. Another benefit will be more flexibility during the project, since researchers

{continued on page 9}

What is a modular grant?

Funds are requested in \$25,000 increments, or modules, rather than in detailed budget categories. The project will then be awarded at a particular module level. For instance, if you apply for a grant of \$125,000 per year for five years, the award will be made based on modules (which may be reduced in review). If all modules are awarded, you would receive 5 modules of \$25,000 each for a total of \$125,000 per year for the entire five-year project period.

What types of proposals will be affected?

- All competing, individual research project grants (R01), small grants (R03), and exploratory/developmental grants (R21).
- Academic Research Enhancement awards (R15)

Unsolicited, investigator-initiated applications requesting more than \$250,000 direct costs in any year, and applications for grant activities not listed above will follow the current NIH 398 kit procedures.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612.624.5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612.626.9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 10

April 1999

Editor: Bruce Erickson

Editorial Assistant: Tove Jespersen

Associate Vice President: Ed Wink

Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Bruce Erickson, 612.625.2354, bruce@ortta.umn.edu, or Tove Jespersen 612.624.0061, tove@ortta.umn.edu.

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Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When developing budgets for proposals, please use the following rates.

Graduate and Professional Student Assistants

New provisional rates effective Fall, 1999

TA, RA, AF: standard \$5.13/hr + 7.6%
of gross salary

TA, RA, AF: advanced master's or Ph.D. \$.93/hr + 7.6%

Summer quarter TA, RA, AF — 7.6%

Summer session TA, with tuition \$9.68/hr + 7.6%

Summer session TA, without tuition — 7.6%

Professional program assistant — 7.6%

Dental fellow * \$3.35/hr —

Medical fellow * \$2.57/hr —

To the rates listed above, add 7.7% to the 7.6% when a graduate student is enrolled for fewer than 3 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental or medical fellows, or medical fellow specialists. **This is a change from previous years.**

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612.625.7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	24.4%	27.6%	14.2%
7/1/00 - 6/30/01	27.9%	27.4%	14.3%

Fringe benefit rates are determined by the Accounting Services Department; call Vivian Fickling, 612.624.2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe1999_2000.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Bruce Erickson, editor, at 612.625.2354, bruce@ortta.umn.edu.

A New Threshold for Capitalizing Equipment

The University currently considers capital equipment to be moveable items with useful lives of more than two years and costs of \$500 or more per unit (items not meeting this definition are 'supplies'). Effective July 1, 1999, the University's equipment capitalization threshold will change from \$500 to \$2,500. Items costing \$500-\$2,499 that previously would have been considered equipment will now be supplies. This threshold impacts researchers in the following ways: 1) items previously budgeted as equipment may now be supplies, 2) indirect costs may be charged on those supply items that were previously considered as equipment. The University is implementing this change to streamline procedures for capitalization and tracking, to create overall efficiencies, and to be more consistent with other universities and federal regulations

SPA will apply these changes to *unbudgeted as well as budgeted* equipment as follows:

Beginning May 1, 1999, the new \$2,500 threshold will be applied to all new and competitive renewal proposals received in SPA with a budget start date of July 1, 1999 or later.

EGMS incorporated this change at the end of March. All new and renewal proposals with a start date of July 1, 1999 or later that are in development in EGMS will have this change applied to them.

Any projects awarded under the old capitalization threshold of \$500 will have that rule continue to apply for the current project period. This includes:

- Projects already in progress
- Projects that have been awarded but not started
- Proposals that have been submitted
- Non-competing continuation proposals
- Supplemental requests related to these projects

The Controller's office will be distributing correspondence that addresses implementation and transition issues. If you have any questions about this change, as it applies to sponsored projects, contact the grant administrator assigned to your project.

Did you know?

- The \$500 threshold had not been changed for over 10 years.
- Five of the Big 10 universities have capitalization thresholds of \$5,000. Another three have rates of at least \$1,000.
- Approximately 15,000-20,000 new items are capitalized and tagged each year.
- The change will reduce the number of items tagged and tracked by approximately 68% but would reduce the dollars tracked by approximately 22%.

Indirect Costs to be Charged to First \$25,000 of Subcontracts and Consortium Agreements

The Division of Cost Allocation at the Department of Health and Human Services, the office that sets our indirect cost rate, has mandated that the University start charging indirect costs on the first \$25,000 of subcontracts and consortium agreements. This practice is part of federal regulations and is followed by other research universities. Details of the change are listed below:

Effective May 1, 1999, all new or competing renewal paper proposals received in SPA with a start date of July 1, 1999 or later, will have indirect costs taken on the first \$25,000 of *each* subcontract *per each* project period. This change was programmed into EGMS the last week of March. All new and renewal proposals with a start date of July 1, 1999 or later that are in development in EGMS will have this change applied to them.

The University will not take indirect costs for budgeted or unbudgeted subcontracts on the following projects:

- Projects already in progress
- Projects that have been awarded but not started
- Proposals that have been submitted
- Non-competing continuation proposals
- Supplemental requests related to these projects

Grants Management Project Implementation Announcement

An executive briefing for deans, department heads, and other invitees describing the implementation of the University of Minnesota Sponsored Project Management Model will take place Thursday, April 15, 1999.

President Mark Yudof will open the program at 4:00 p.m., which will be followed at 4:45 p.m. by a reception and the opportunity for attendees to observe staff demonstrating various software tools, reports, and other information detailing specific aspects of the Model. Other program participants are senior vice president Frank Cerra, provost Bob Bruininks, vice president Chris Maziar, and David Hamilton, project director, Grants Management Project.

Upcoming Event

On June 8, 1999, an all-day symposium on the Proper Conduct of Research will be presented jointly by UM staff and personnel from the National Institutes of Health (NIH). Specifics regarding the location and symposium topics will follow in the May *Research Review*.

Grants Management Project Certified Approver Program

The Certified Approver Program is a key component of the University's new model for the management of sponsored funds. With this program departments or colleges will have the authority to review and approve financial transactions involving sponsored funds that are currently approved by Sponsored Projects Administration (SPA). Many of the post-award financial transactions that presently require approval by grant administrators will be handled by certified approvers. The program offers departments and colleges greater control and authority for all aspects of financial transactions.

Who will be a certified approver? Someone who has the expertise and authority to review and approve a wide variety of financial transactions, understands the complexity of federal funding regulations and University policies and procedures, and can provide accurate information to principal investigators and others. A certified approver is an important part of a team, working with faculty, staff, department heads, and SPA to effectively manage sponsored funds. Many of the certified approvers will be the individuals currently relied upon to handle financial planning, transactions, and record keeping.

How many certified approvers will a department or college need? That depends on the amount of externally sponsored activity a particular department or college has, how that unit wants to organize its financial responsibilities of payroll, purchasing, record keeping and reporting, and the criteria that will determine when the signature of a certified approver is needed. These criteria, such as the type of goods or service being bought and the purchase price, are currently being discussed.

Many aspects of this program and the implementation procedures are in development. This article outlines the program in broad strokes. Members of the Sponsored Management Project Committee are available to meet with your department or college staff to exchange information and ideas.

by Peggy Sundermeyer
Graduate School

Staff changes in Sponsored Projects Administration

There are several staff changes in SPA. Mary Lou Weiss, who announced in December that she would be stepping down as Assistant Director, will continue to work at SPA on a part-time basis. Lorrie Awoyinka has been appointed Interim Assistant Director and Doug Johnson has been appointed Interim Senior Grant Administrator.

Grants Management Project Web Provides New Financial Report

Agency-Specific Expense Categories Summary by Budget Period

Do CUFS object codes confuse you? Would you prefer to view financial reports with expense categories that look familiar? If so, you will like the new PI-friendly report that has been developed.

The *Agency-Specific Expense Categories Summary by Budget Period* report provides financial information (budget, expenses, encumbrances, and account balance) based on agency expense categories rather than CUFS expense categories (or object codes). The report is a tool that principal investigators, in conjunction with departmental staff, can use to monitor activity on their sponsored projects.

From the summary page, viewers have the option to "drill down" to budget detail, personnel detail, or nonpersonnel detail information. The reporting period is based on the agency's budget period, where applicable, otherwise it is inception-to-date reporting.

The report will be located on the Financial Reports page URL (<http://financial.reports.umn.edu>) and is accessible to all University employees. Select the "PI" button, and access will be granted by entering your University of Minnesota X.500 ID and password. If you need assistance with your ID and password, contact the ADCS helpline at 612.626.4276.

Sponsored Projects Administration Thank You

Sponsored Project Administration (SPA) staff would like to thank faculty and departmental staff for complying with the new proposal delivery deadline that went into effect December 1, 1998.

SPA staff report that the most recent proposal deadlines in February and March went very smoothly. Ed Wink, associate vice president of SPA, said, "The process seems to be going well. Overall feedback on the new deadlines has been positive."

According to SPA staff, there were fewer proposal problems in February and March, in part because there were fewer last minute proposal submissions. In addition, the new proposal delivery deadlines gave SPA staff more time to work with faculty and departmental staff to fix any problems that came up.

What's New in Grants Management

an index to changes and announcements

April 1999

(month 10 of UM fiscal 1999)

SPA Update 9919 - New policy on Charging Sponsored Projects Costs before the Award.

Notice issued: 4/1/99

Supersedes: na

Effective date: 4/1/99

Change:

New policy to replace the current *Guidelines for Establishing Accounts for Pending Awards*.

Action to take:

See the related article on page nine of the *April Research Review*.

SPA Update 9920 - New capitalization threshold.

Notice issued: 4/1/99

Supersedes: \$500 threshold

Effective date: 7/1/99

Change:

Capitalization threshold changed from \$500 to \$2,500.

Action to take:

See the related article on page three of the *April Research Review*.

SPA Update 9921 - Indirect costs to be charged on first \$25,000 of subcontracts and consortia agreements.

Notice issued: 4/1/99

Supersedes: na

Effective date: 7/1/99

Change:

Indirect costs to be charged on first \$25,000 of subcontracts and consortia agreements.

Action to take:

See the related article on page three of the *April Research Review*.

Patents and Technology Marketing

Severson New President-Elect of AUTM

Members of the Association of University Technology Managers (AUTM) elected Jim Severson to the office of president-elect during their annual convention in San Diego in March. The position requires a three-year commitment, serving as president-elect, president, and a transitional third year as immediate past president.

"It's an honor to be elected to this position and I hope it will increase the visibility of the University of Minnesota's work in research and technology transfer," said Severson,

director of the University of Minnesota's health technologies office in Patents and Technology Marketing.

AUTM is an international, nonprofit, and educational society created to assist administrators of patent and copyright programs at universities to license technologies, encourage the production of inventions, and to make appropriate recommendations to assure the effective transfer of technology to the public.

Minnesota High Tech Association Partnership Conference

This conference is an excellent opportunity to learn about the business and strategic direction of dozens of software and information technology companies. Attendees will meet service providers who can assist in the partnering process.

April 13, 1999
Radisson South
494 & Highway 100
Bloomington

1:30 – 2:00 p.m.
Registration

2:00 – 4:30 p.m.
Company presentations
Practical partnering definitions
Audience participation

4:30 – 5:30 p.m.
Networking/Cocktails

Cost:
\$15 MHTA Member
\$35 Non-member

You may register online at
<http://www.mhta.org>
For other event information call 651.683.3892

This event is sponsored by:
Express Interactive Solutions – Fingerhut – Lucent Technologies
Prideway Moores Insurance – Seagate
University of Minnesota – West Group

Animal Care and Use Committee Animal Care and Use Orientation Seminars

Animal Care and Use Orientation Seminars sponsored by the Institutional Animal Care and Use Committee will be held at the following times in April. All new employees using vertebrate animals must attend. Call 612.612.5654 to reserve a spot for the sessions in D-528 Mayo. The St. Paul session does not need a reservation. Contact Dale Cooper at 612.624.5462 with any questions. Current schedules are maintained at <http://www.ahc.umn.edu/rar/Seminars.html>.

Tuesday, April 6

9:30-11 a.m. D-528 Mayo (Minneapolis, East Bank)

Wednesday, April 14

9:30-11 a.m. B36 Classroom Office Building (St. Paul)

Monday, April 19

1-2:30 p.m. D-528 Mayo (Minneapolis, East Bank)

Thursday, April 29

1-2:30 p.m. D-528 Mayo (Minneapolis, East Bank)

Dale M. Cooper, DVM, MS, DACLAM
Associate Program Director, Office of Regulatory Affairs
Academic Health Center, University of Minnesota
Box 351 Mayo, 420 Delaware St. SE
Minneapolis, MN 55455
612.624.5462; fax: 612.625.7632;
coope019@tc.umn.edu

Clinical Drug Trials Seminar for Principal Investigators

The Academic Health Center (AHC) is hosting a half-day seminar for principal investigators involved in drug research. Speakers will include representatives from the FDA and Pharmaceutical Industry, as well as representatives from the University of Minnesota.

Topic Highlights:

- Recent updates and changes in the FDA regulations and guidelines
- Investigational Pharmacy policy update for FUMC and the AHC
- What a sponsor looks for when selecting an investigator

Wednesday, April 21, 1999
8:00 – 1:00 OR 12:00 – 5:00

Please contact Meg Becker at
612.626.1462 for more information

Video Presentation

The National Council of University Research Administrators (NCURA), in cooperation with the Council on Government Relations (COGR), presented a live satellite and video conference entitled, "A Primer on Award Administration," on April 8, 1999. The program included information on award administrator basics, and looked at the how and whys of the administration of federal awards.

The broadcast focused on day-to-day administrative activities for those administrators *not* in the central research administration office and was relevant to principal investigators.

University of Minnesota staff videotaped the presentation and will allow interested viewers the opportunity to view the presentation at a later date.

For more information, please call Research Training at 612.625.4572 or e-mail rschtrng@umn.edu.

Research Subjects' Protection Programs Institutional Animal Care and Use Committee

The Institutional Animal Care and Use Committee (IACUC) announces the first revised edition of the "Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching," released January 1999 by the Federation of Animal Science Societies.

Preliminary drafts had been widely distributed so most of the policies and procedures have been in evolving implementation over recent years. The guide was developed with the input of most major organizations involved in animal research and with the consultation of active researchers. The guide is intended to support the research and ensure animal welfare. With agriculture specific guidance, the field is now recommending state-of-the-art techniques.

The University of Minnesota has an extensive research and teaching effort involving agricultural animals all around the state.

In anticipation of the new guide, and to respond to the differences between agricultural and laboratory research, the IACUC established an agricultural subcommittee to review and inspect agricultural animal research, teaching, and service projects. Researchers and facility managers should be aware that one new requirement in the guide involves more frequent inspection of agricultural animal sites. The IACUC will now conduct semi-annual (not annual) inspections.

The Research Subjects' Protection Programs has received permission to duplicate the guide for researchers. To obtain a copy, please contact the office at 612.626.5654 or iacuc@umn.edu.

by Moira Keane, Director
Research Subjects' Protection Programs

Patents and Technology Marketing Paul Korathu Joins PTM

Paul Korathu recently joined the University of Minnesota's Patents and Technology Marketing (PTM) office as a licensing associate in the area of health technologies. Korathu holds an undergraduate degree in biochemistry and chemistry from Duquesne University and a graduate degree in biochemistry from Ohio State University. Prior to joining PTM, he worked as a licensing assistant at Ohio State University's Office of Technology Licensing and as a research associate at Case Western Reserve University where he did research in immunochemistry.

Research Animal Resources

Patrick J. Manning Research Award

Nominations are invited for the Patrick J. Manning Animal Care and Research Award. This award is a memorial to Dr. Patrick J. Manning, D.V.M., who directed the University's Research Animal Resources from 1974 to his death in 1994. Dr. Manning was also a professor in the Department of Laboratory Medicine and Pathology. The award recognizes special effort in the care and use of research animals and contributions to biomedical research. Examples of the kinds of accomplishments the award seeks to honor include:

- Efforts in refining research techniques to use fewer animals, or provide less invasive or less stressful procedures;
- Efforts that improve training in animal welfare and biomedical research;
- Efforts for outstanding observation, daily care, or health care of research animals;
- Efforts that educate the public about the essential role animals play in research.

Nominations should take the form of a single letter *by the candidate* and signed by a supervisor. The award is intended for University staff or students, not faculty. The short letter should summarize the candidate's contributions to animal care and research. Nominations are due Friday, **April 30, 1999**. Mail nominations to PJM Awards, 6-255 Millard Hall. Further information may be obtained from RAR's homepage <http://www.ahc.umn.edu/rar>, or call 612.625.7430.

by Jodi Burich

Sponsored Project Administration Award Notices

In their efforts to speed up the time required to set up an award, Sponsored Projects Administration staff will now be sending out shortened award notices for most research projects. In some circumstances, the lengthier NOGA may be used.

The abbreviated Notice of Grant and Contract Award (NOGAs) will now point to articles in the sponsor's award notice that contain unusual provisions rather than listing general and specific provisions of the award.

SPA staff request that principal investigators and departmental staff take a few extra minutes to review the sponsor's award notice when the NOGA arrives.

Important Information About Proposal Submission

National Science Foundation

Because of significant changes in NSF grants submission and the use of FastLane, *Research Review* is repeating the information published in last month's issue.

Proposal Submission Using FastLane

Beginning May 3, 1999, all unsolicited proposals to the National Science Foundation's Directorate for biological Sciences (BIO) *must* include the following proposal forms via FastLane: the proposal cover page; the project summary; and the BIO proposal classification form (PCF). BIO *strongly recommends* that the entire proposal be submitted electronically. The entire announcement may be accessed at <http://www.nsf.gov/cgi-bin/getpub?nsf9983>.

Postaward Actions

Effective May 3, 1999, Grantee Post-Award notification to NSF and requests for approval by NSF that are supported by FastLane will only be accepted in FastLane. This requirement means that it is very important to request no-cost extensions in a timely manner because Sponsored Projects Administration (SPA) will not be allowed to submit a letter to the program officer to make an exception when the deadline has passed. See the December 1998 *Research Review* article regarding no-cost extension requests for details and the FastLane web page at <http://www.fastland.nsf.gov/> for a complete set of FastLane supported functions.

Project Reporting System

As of October 1, 1998, the National Science Foundation requires all principal investigators to use the new Project Reporting System format to submit annual and final project reports. PIs *must* transmit these reports via FastLane. Reports that have been submitted on paper are being returned with instructions that submission will *only be accepted* via FastLane.

Please be advised that if principal investigators have any outstanding reports, it may delay the funding for all their grants or proposals until these reports are submitted.

Mailing FastLane Proposal Original Documents

The FastLane Office at NSF has informed SPA that they will *no longer* accept the original numbered cover sheet, signed certification page, and other original documents if sent by FedEx. These documents are to be sent by first class mail and *must* arrive at NSF within five (5) working days after the original FastLane submission. Only exceptions as specified in the original program announcement are allowable.

Sponsored Projects Administration

Material Transfer Agreements

Sponsored Projects Administration (SPA) staff recently developed a new form to specifically address the information required for processing Material Transfer Agreements (MTA). SPA staff designed the form to make it easier for researchers to provide the correct information grant administrators use to review the agreement. Researchers must use this new form when completing MTAs and not the Proposal Routing Form (BA23).

MTAs are legal contracts stating conditions under which proprietary research material is being transferred from one

institution or company to another. When University researchers receive proprietary materials, they must submit the MTA (usually prepared by the provider's institution or company) and MTA form to their grant administrator at SPA. The grant administrator will then review the documents to ensure that the researcher's and university's rights are protected, obtain legal university signatures, and submit it to the provider.

The new form is available at <http://www.ortta.umn.edu/forms/forms.htm>.

Modular Grants

(continued from page 1)

will no longer have to submit rebudgeting requests to the agency because the award is not structured in specific budget categories.

What are the drawbacks of a modular grant?

One major risk is that without figuring out the exact cost of a project, an applicant may request an inaccurate figure. An associated issue is routine escalations that are currently built into budget requests. Modular grants are usually awarded at a set module level for the life of a project. Unless the researcher calculates the request based on the *entire* life of the project, the project might be faced with deficits as salaries and other costs increase annually. Increases in modules can be requested in exceptional circumstances, but the request must be thoroughly justified.

Will detailed budgets be required for modular grants?

Yes, NIH *will* require a detailed budget to be submitted before they will forward their award notice. In addition, NIH requires the checklist and indirect cost calculations, therefore detail must be provided for several items, such as graduate research assistant salary and fringe benefit costs. The university also needs some budget detail in order to set up the appropriate accounting features.

How does the modular grant form make the proposal process easier?

If an applicant can accurately figure the entire cost of the project without making detailed calculations, the initial proposal process is easier because less budget information needs to be compiled and presented. Because some degree of budget detail will be necessary for the principal investigator to determine the number of modules to request over the life of the project, the EGMS system is being set up to facilitate both the development of modules and the details needed to accurately establish a budget in the university financial system once an award is made.

Besides budget information, how are modular applications different from the current applications?

These applications have numerous changes, for example, the Other Support section is not part of a modular grant, but much of this information must be presented in the biographical sketches. However, NIH will require principal investigators to submit other research support information if the application has successfully passed peer review and is being considered for an award.

How will using EGMS make the proposal process easier?

Because the format and presentation of project information is so different, and to facilitate the award set up, the university is requesting that principal investigators use the Electronic Grants Management System (EGMS) to develop their proposals in the modular grant format.

Unlike NIH, EGMS will not require applicants to develop budgets in \$25,000 increments. If the researcher chooses to devise a detailed categorical budget, EGMS will automatically convert it into the modular format. Because this detailed budget is stored in the database, if the project is awarded, the detailed budget can be quickly forwarded to NIH.

EGMS also makes the process easier because the researcher does not need to worry about whether the application form is being filled out correctly. The system

{next page}

Sponsored Projects Administration New Pre-Award Policy

Sponsored Projects Administration (SPA) staff developed a new pre-award policy to replace the *Guidelines for Establishing Accounts for Pending Awards*. This new policy, *Charging Sponsored Project Costs before the Award*, is part of the University policy library and can be found on the library's website or at <http://www.ortta.umn.edu/policy/respolcy.htm>. These changes will:

- Clarify differences between procedures for accounts established before the award process is complete (advance) vs. before the start date (pre-award).
- Outline conditions and procedures for charging pre-award costs to continuing awards when work is accelerated or there is a minimal break in support. This information clarifies when costs need SPA and perhaps sponsor approval (accelerated) and when no approval is necessary (minimal break).
- Remove the option to charge pre-award costs to a non-sponsored departmental account and transfer the costs to the sponsored account when the award is received.
- Incorporate the new Aged Pre-Award Account Report and outline responsibilities for monitoring expenditures on pre-award and advance accounts and age of these accounts.
- Include the responsibilities of the new Office of Institutional Oversight and Reporting.
- Include new forms: the Pre-award / Advance Account Request Form and the Accelerated Work Request Form. These forms enable preparers to provide all necessary information in advance so approvers can review the request efficiently.
- Clarify situations when pre-award spending approval must be obtained from a sponsor.

Modular Grants

(continued from previous page)

requests information in a question and answer format. As the researcher answers the questions, the data are stored in a database and can be automatically printed in the form of the modular grant application.

How does an applicant find out about using EGMS for the modular grant application?

To use EGMS, look at <http://nirvana.ortta.umn.edu> or call the EGMS helpline at 612.618.8747. Questions about modular grants should be directed to the grant administrator at Sponsored Projects Administration who will handle the project. NIH also has information posted at <http://www.nih.gov/grants/funding/modular/modular.htm>.

Using EGMS for NIH Applications

<u>Alternative 1</u> All paper	<u>Alternative 2</u> Sketchy budget in EGMS that is rolled into the modular forms	<u>Alternative 3</u> Detailed budget in EGMS that is rolled into the modular forms
<p><u>Advantages</u></p> <ul style="list-style-type: none"> • Can be prepared quickly. 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> • At least the module structure is apparent. • Should be fast. 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> • Budget will be done up front and will not need to be done again when the award is imminent. • SPA can respond quickly to NIH, which will expedite award processing. • Award setup will be fast through EGMS.
<p><u>Disadvantages</u></p> <ul style="list-style-type: none"> • Potential for errors that could have serious consequences in the out years of the grant. • Will have to do a detailed budget before award, resulting in delays. • Will have to put detailed budget into EGMS anyway for the University's grants management processes, leading to more delays. 	<p><u>Disadvantages</u></p> <ul style="list-style-type: none"> • Potential for errors that could have serious consequences in the out years of the grant. • Will have to do a detailed budget before award, resulting in delays. • Will have to put detailed budget into EGMS anyway for the University's grants management processes, leading to more delays. 	<p><u>Disadvantages</u></p> <ul style="list-style-type: none"> • None, other than having to do the budget in the way you are now used to.

PTM Creates New Position to Help with Technology Transfer

The University of Minnesota's Patents and Technology Marketing (PTM) unit recently created the position of technology transfer liaison to work in the Academic Health Center (AHC). The position is part of Chris Maziar's, dean of the graduate school and vice president for research, overall technology commercialization plan. The position was created to help AHC faculty and staff manage disclosures in a timely way and introduce the additional role of technology prospecting.

The university also established the position to increase visibility for PTM and assist principal investigators in recognizing the commercial potential of their research. The hope is to take a more proactive approach in recognizing new technologies earlier in the process. Additional staff will allow PTM to develop a "local" presence in the colle-

giate units. PTM plans to create and fill two additional liaison positions in the near future, one for the St. Paul campus and the other for the Institute of Technology.

PTM hired Susan Patow to be the first technology transfer liaison working with AHC. Patow brings years of education and experience to the new position. She's earned graduate degrees in technology management and business administration from the University of Maryland and also has degree in nursing. Patow spent the last several years working as a technology transfer specialist at the National Institutes of Health and is currently serving as president of Technology Transfer Society. Patow says reaction from AHC staff has been positive, "People we've talked to have been very supportive and they are excited that there is a liaison at AHC to help them."

Research Review Survey Questions for Readers

We're changing the *Research Review* and we want your input.
Please take a few minutes to answer the questions below and return them to Bruce Erickson
at the address printed on the back of this page. Thank you.

1. Are you faculty _____, staff _____, or other _____?

2. I read the following standard sections of the *Research Review*:

	Always	Sometimes	Never
a. Funding Opportunities	_____	_____	_____
b. Faculty Research, Training, and Service Awards	_____	_____	_____
c. Rates, including fringe benefit rates and indirect cost	_____	_____	_____
d. Research Subject Protection Programs	_____	_____	_____
e. What's New in Grants Management	_____	_____	_____
f. Recent Publications by University Authors	_____	_____	_____
g. Sponsored Project Admin questions and answers	_____	_____	_____

3. I find the feature articles in the *Research Review* informative and useful: _____ Agree; _____ Neutral; _____ Disagree
4. It's easy to find the information I need in the *Research Review*: _____ Agree; _____ Neutral; _____ Disagree

5. I would like more information about the following areas:

	Yes	No
a. Sponsored Project Administration (SPA) procedures and policies	_____	_____
b. University regulations	_____	_____
c. EGMS information	_____	_____
d. patents of interest	_____	_____
e. research projects of interest	_____	_____
f. issues involving technology transfer	_____	_____
g. court cases affecting research and technology transfer	_____	_____
h. regulations and legislation affecting research and technology transfer	_____	_____
i. websites of interest to researchers	_____	_____
j. specific agency or sponsor policy changes	_____	_____
k. other areas: _____	_____	_____

6. How is the *Research Review* helpful to you?

7. How would you change the *Research Review*?

8. Additional comments or suggestions regarding the *Research Review*.

9. If you are comfortable with *Research Review* staff contacting you to receive follow-up information, further comments, and input regarding the content of the *Research Review*, please print your name, phone number and email address below.

Name: _____

Email Address: _____

Phone number: _____

**Bruce Erickson
Sponsored Projects Administration
1100 Washington Avenue South, Ste. 201
Minneapolis, MN 55415**

CAMPUS MAIL 7491

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

- Prell, R.E. Fighting to become Americans: Jews, gender, and the anxiety of assimilation. Boston: Beacon Press, 1999.
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- Carver, L.J., Bauer, P.J. When the event is more than the sum of its parts: 9-month-olds' long-term ordered recall. *Memory* 7.2 (Mar. 1999): 147-174.
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- Chang, T.K. Reporting public opinion in Singapore: journalistic practices and policy implications. *Harvard International Journal of Press/Politics* 4.1 (Winter 1999): 11-28.
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Krueger, R.F. Personality traits in late adolescence predict mental disorders in early adulthood: a prospective-epidemiological study. *Journal of Personality* 67.1 (Feb. 1999): 39-65.

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Magne, P., Douglas, W.H. Rationalization of esthetic restorative dentistry based on biomimetics. *Journal of Esthetic Dentistry* 11.1 (1999): 5-15.

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Indritz, M.E.S., Artz, M.B. Value added to health by pharmacists [Review]. *Social Science & Medicine*. 48.5 (Mar. 1999): 647-660.

**Please send your new citations to tove
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More Information

To generate copies of NIH and NSF application forms, please go to,

EGMS at <http://www.ortta.umn.edu>, or to NIH at <http://www.nih.gov/grants/forms.htm>, or to NSF at <http://www.nsf.gov/pubsys/index.htm> (You may call 612.624.9004 if you need help).

For funding searches please contact the

Office of the Vice President for Research
612.625.7585; facgrant@gold.tc.umn.edu,
<http://www.research.umn.edu/research.html>.

Department of Justice

Evaluation of Parents Anonymous

The Office of Juvenile Justice and Delinquency prevention requests applications for the evaluation of the Parents Anonymous program. The purpose is to assess the implementation effectiveness of the program in diminishing the impact of risk factors, increasing the resiliency of parents and children, preventing and treating child abuse and neglect, and preventing juvenile delinquency.

Parents Anonymous is the oldest and largest national child abuse prevention program in America. From a single group in 1970, it has grown into more than 2,300 weekly mutual support groups for parents and complementary children's programs. The national network consists of 50 state and local affiliate organizations which oversee weekly programs.

This evaluation will be conducted in two phases, each lasting 18 months. During Phase I the process evaluation will measure the operationalization of the theoretical premises, principles, best practices, and model of the program. Phase II will explore the various factors that contribute to the program's effectiveness and develop survey instruments to measure outcomes to both parents and their children.

Up to \$300,000 is available for the initial 18-month budget period. Phase II is expected to be at a comparable, or higher level.

The application deadline is **May 7, 1999**. For further information contact Dean Hoffman, Program Manager, Research and Program Development Division, Office of Juvenile Justice and Delinquency Prevention, 800 K Street NW, 3rd Floor, Washington, DC 20531; 202.353.9256. A full copy of the announcement, and application materials may be found at <http://www.ojjdp.ncjrs.org/grants>.

National Institute for Literacy Literacy Leader Fellowship Program

The literacy leader Fellowship Program is designed to provide federal financial assistance to adult learners and to individuals pursuing careers in adult education or literacy in the areas of instruction, research, or innovation. Literacy workers and adult learners are applicable for fellowships.

The priorities currently being addressed are: 1) developing leadership in adult learners; 2) expanding the use of technology in literacy programs; 3) improving accountability for literacy programs; and 4) raising public awareness about literacy.

The estimated average size of awards is \$37,000; three to four awards will be made for three to 12 months of full or part-time activity.

The application deadline is **May 14, 1999**. To receive an application or for further information, contact Julie Gedden, National Institute for Literacy, 800 Connecticut Avenue NW, Suite 200, Washington, DC 20006; 202.632.1515, fax 202.632.1512, jgedden@nifl.gov. You may also go to <http://www.nifl.gov/activities/fllwhome.htm>.

Agency for Toxic Substances and Disease Registry Childhood Asthma

The Agency for Toxic Substances and Disease Registry (ATSDR) is inviting cooperative agreement applications to conduct research on the impact of hazardous substances on childhood asthma.

Grantees will use secondary data sources for asthma to evaluate the contribution of environmental exposures to asthma morbidity among children; provide generalizable scientific information about the link between hazardous substances and childhood asthma morbidity; and develop methods as models for organizations to use to answer questions about effects of substances.

\$185,000 is available for one or two awards, ranging from \$80,000 to \$105,000, for three years.

The application deadline is **May 17, 1999** for letters of intent, and **July 16, 1999** for full applications. For applications, call 888.472.6874, refer to 99059. For program information, contact Sherri Berger, 404.639.5149, sob8@cdc.gov, <http://www.cdc.gov>. The CFDA number is 93.161.

Centers for Disease Control

Evaluating Potential Exposures to Blood and Risk of Hepatitis C Virus

The Centers for Disease Control and Prevention (CDC) announces the availability of FY 99 funds for a cooperative agreement for evaluating potential exposures to blood and risk of hepatitis C virus (HCV) infection among persons without traditional risk factors. Specifically, applications are solicited for projects aimed at determining if there is an increased risk of HCV or HBV infection associated with illegal intranasal drug use (cocaine or heroin), anabolic steroid abuse, tattooing, or body piercing in populations with a low prevalence of illegal injection drug use.

Approximately \$150,000 is available to fund one award for a 12-month budget period within a project period of one year.

The application deadline is **May 10, 1999**. To obtain additional information contact Andrea Wooddall, Grants Management Specialist, Grants Management Branch, Procurement and Grants Office, Centers for Disease Control 2920 Brandywine Road, mailstop E—18, Atlanta, GA 30341-4146; 770.488.2751, fax 770.488.2777, ayw3@cdc.gov. See also <http://www.cdc.gov>.

National Institutes of Health

Centers for Dietary Supplements Research: Botanicals

The Office of Dietary Supplements and 12 other institutes within the National Institutes of Health invite applications to establish specialized research centers to investigate the biological effects of botanicals, including but not limited to, botanicals available as dietary supplements. Applicants are encouraged to propose research projects ranging from basic research to clinical applications. A fully integrated center eventually will have the capacity to 1) identify, characterize, and authenticate botanicals; 2) assess the bioavailability and bioactivity of botanical ingredients; 3) identify active constituents in botanicals, and explore their mechanism(s) of action; and 4) conduct both preclinical and clinical evaluations of botanicals.

The mechanism of support is the specialized center grant—P50. An estimated \$1.5 million is available to fund one award for no more than five years.

An optional, non-binding letter of intent is requested by April 13, 1999. Full proposals are due **May 13, 1999**. The announcement may be accessed at <http://www.nih.gov/grants/guide/rfa-files/RFA-OD-99-007.html>.

Centers for Disease Control

Violence-Related Injury Evaluation Research

The Centers for Disease Control and Prevention (CDC) are accepting proposals for Injury Prevention and Control Research Grants. The priority area is injuries as a result of violent and abusive behavior. The purposes of the program are to:

1. Evaluate current interventions, policies, and strategies for the prevention of violence-related injuries.
2. Identify effective strategies to prevent violence-related injuries.
3. Build the scientific base for the prevention of injuries, disabilities, and deaths due to violence in the following areas: suicidal behavior, firearm-related injury, sexual violence, and intimate partner violence.
4. Encourage professionals from a wide spectrum of disciplines to work together and undertake research to prevent and control such injuries.

The submission deadline is **April 30, 1999**. This and other CDC announcements are available through the CDC homepage at <http://www.cdc.gov>.

Department of Energy

Mining Industry Crosscutting Technologies

The U.S. Department of Energy is inviting proposals to enhance competitiveness, reduce energy consumption, and reduce environmental impacts of the mining industry. DoE is particularly interested in proposals related to low-cost and efficient production; superior exploration and resource characterization; and safe and efficient extraction and processing.

Two million dollars is available for multiple awards for three years. The matching requirement is 50 percent of total project costs. DoE encourages collaboration among industry, university, and national laboratory scientists.

The application deadline is **May 17, 1999**. For further information contact Keith Miles, Federal Energy Technology Center; 412.892.5984, fax 412.892.6216, miles@fetc.doe.gov. You may also go to <http://www.fetc.doe.gov/business>. Refer to solicitation DE-PS26-99FT40299.

■ NSF Opportunities In Brief

Global Change Methods and Models

To develop improved methods for integrated assessment of global change that will address the combined influence of multiple systems such as environmental change, large-scale technological change, and international socio-political evolution.

Three million dollars will be available to fund 10 to 15 awards for three years.

The deadline is **May 21, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9986>.

Contaminant Behavior

For research on the physical and biological routes, rates, and reservoirs of Arctic contaminants.

Three million five hundred thousand dollars is available to fund 15-25 awards for up to three years.

The deadline is **May 7, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9997>.

Rural Systemic Initiative

To conduct assessment and accountability studies of the Rural Systemic Initiatives program which seeks to implement sustainable, high-quality, standards-based teaching to improve significantly teaching and learning of mathematics and science across rural school systems.

Three million dollars is available for 6 to 10 awards for three years.

The deadline is **June 1, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9995>.

Antarctic Research

To conduct research in Antarctica and perform related research and data analysis in the U.S. in areas including biology, ecology, climate systems, environmental research, and oceanography.

Thirty million dollars is will be available to fund 110 awards.

The deadline is **June 1, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9993>.

Polar Programs Antarctic Information Program

To continue the Cold Regions Bibliography Project, which produces the Antarctic Bibliography and the Bibliography on Cold Regions Science.

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One million dollars is available for 1 award for five years.

The deadline is **June 2, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9994>.

Biological Databases and Informatics

To generate new approaches to the management of biological knowledge that render the collection, maintenance, dissemination, and query of biological data and information useful to the scientific community.

Five million dollars is available to fund 10 awards for up to three years.

The deadlines are the **second Monday in July and January** annually. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9994>.

U.S. Southern Ocean Global Ocean Ecosystems Dynamics

To elucidate shelf circulation processes and their effect on sea ice formation and krill distribution, and to examine the factors, which govern krill survivorship and availability higher trophic levels, including penguins, seals, and whales.

Approximately seven million dollars will be available to fund 20-25 awards.

The deadline is **June 15, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99100>.

Long-Term Ecological Research in Land/Ocean Margin Ecosystems

To new Long-Term Ecological Research (LTER) sites that focus on ecological systems at the interfaces of land masses and coastal oceans, including the Laurentian Great Lakes, estuaries, coastal wetlands, and coastal reefs and their associated terrestrial and freshwater environments. The work should seek to understand the causes of major ecological and environmental changes that influence land and ocean-margin environments, and how the populations, communities, and ecosystems of those environments respond to these changes.

Up to three new sites will be awarded at \$700,000 per year for up to six years.

The submission deadline is **July 1, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9989>.

■ U.S. Department of Agriculture National Needs Graduate Fellowship

USDA announces the availability of grant funds to support the Food and Agricultural Sciences National Needs Graduate Fellowship Grants Program, and for Supplemental Grants for Special International Study or Thesis/Dissertation Research. Funds are awarded to colleges and universities having a demonstrable capacity to carry out the teaching of food and agricultural sciences, and to administer and conduct graduate fellowship programs. The grants are specifically intended to support fellowship programs that encourage outstanding students to pursue and complete a Ph.D. degree.

For fellowship grants, six national need areas have been established: 1) biotechnology—animal; 2) biotechnology—plant; 3) engineering—food, forest products, or agricultural; 4) human nutrition or food science; 5) marketing or management—food, forest products, or agribusiness; and 6) water science.

An institution may submit a maximum of six proposals, and no more than one proposal may be submitted in any one national need area.

The submission deadline is **June 7, 1999**. The application kit may be requested from the Proposal Services Unit, Office of Extramural Programs, Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture STOP 2245, 1400 Independence Avenue SW, Washington, DC 20250-2245; 202.401.5048. Forms may also be requested from psb@reeusda.gov. Indicate that you are requesting National Needs Graduate Fellowship materials.

Institutions with active Fellowship grants and current holders of fellowships may apply for supplemental awards to fund special international study or thesis/dissertation research. The application deadline is **February 16, 2000**. Application materials may be requested from the above address, specifying that you are requesting Special International Study or Thesis/Dissertation Supplemental Grant materials.

A full copy of the announcement, as it appeared in the Federal Register, is available from SPA and may be requested by calling 612.624.0061. Nowhere in the announcement was a web site mentioned.

■ Department of Education Office of Postsecondary Education Gaining Early Awareness and Readiness for Undergraduate Programs CFDA 84.334

The goal of the Gaining Early Awareness and Readiness for Undergraduate Program (GEAR UP) is to give more low-income students the skills, motivation, and preparation needed to pursue postsecondary education. Through early college preparation and awareness activities, eligible students are provided comprehensive mentoring, counseling, outreach, and support services, including information to students and their parents about the benefits of postsecondary education and the availability of federal financial assistance.

There are two components to this program: partnerships, and state grants.

Eligible applicants are partnerships with at least 1) one institution of higher education; 2) one local educational agency (school district) on behalf of one or more schools with a 7th grade and the high school(s) that they would normally attend; and 3) two additional organizations, such as businesses, professional associations, community-based organizations, state agencies, elementary schools, philanthropic organizations, religious groups, and other public or private organizations.

One hundred twenty million dollars is available to fund this program. The size of each partnership grant will depend on the number of students served; there is a maximum annual federal contribution of \$800 per student. Approximately 300 to 700 grants will be awarded.

For state grants, the estimated average award is \$1.5 million to \$2 million. Approximately 20-30 state grants will be awarded.

The application deadline is **April 30, 1999**. For applications or information contact Karen W. Johnson, OPE, USDE, 400 Maryland Avenue SW, Room 6252, Portals Building, Washington, DC 20202; 1.800.USA.LEARN, gearup@ed.gov, or fax your request to 202.260.4269. Other information may be found at <http://www.gearup.org>. The complete announcement may be found at <http://ocfo.ed.gov.fedreg.htm>; <http://www.ed.gov/new.html>; <http://www.ed.gov/gearup>.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by SPA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at SPA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
February 1999	373	\$ 98,452,458
Awards Processed		
February 1999	221	33,868,451
Proposals Submitted		
July 1998 - February 1999	2,661	547,106,379
Awards Processed		
July 1998 - February 1999	2,047	239,392,010
Proposals Submitted		
July 1997 - February 1998	2,707	547,161,683
Awards Processed		
July 1997 - February 1998	1,963	225,333,383

Analysis of *C. elegans* Unconventional Myosins

Margaret Titus, Cell Biology and Neuroanatomy
American Heart Association, Inc.
\$299,999 - 1/1/99-12/31/02

NAADP Signaling in Mammalian Systems

Timothy F. Walseth, Pharmacology
NIH, NIGMS
\$102,882 - 2/1/99-2/1/00

Oncogenic Determinants of the Emerging ALV-J Retrovirus

Kathleen Conklin, Human Genetics
NIH, NCI
\$216,322 - 2/1/99-2/1/00

Effect of Propecia on the Hair Follicle in Male Androgenetic Alopecia: A Confocal Laser Scanning Microscopy and Video Imaging Study

Maria K. Hordinsky, Dermatology
Marna Ericson, Dermatology
Merck
\$49,880 - 10/15/98-10/14/99

Low-Cost, Standards-Based Tele-Home Care

Stanley M. Finkelstein, Laboratory Medicine and Pathology
Stuart Speedie, Laboratory Medicine and Pathology
USDOC, National Telecommunication and Information Adm.
\$625,000 - 10/1/98-12/31/00

Biomedical Applications for the Next Generation Internet

Lael C. Gatewood, Laboratory Medicine and Pathology
Gregory M. Vercellotti, Medicine
NIH,.nlm
\$98,622 - 9/29/98-6/30/99

Epidemiology and Molecular Virology of Oral HIV Transmission

Timothy W. Schacker, Medicine
Ashley T. Haase, Microbiology
Seth L. Welles, Epidemiology
NIH, NIDR
\$309,181 - 2/1/99-2/1/00

Platelet Factor 4 Modulation of the Protein C Anticoagulant

Arne Slungaard, Medicine
American Heart Association, Inc.
\$165,000 - 1/1/99-12/31/01

The Metabolic Consequences of Hemipancnectomy in Humans

Elizabeth R. Seaquist, Medicine
Diabetes Trust Fund
\$21,725 - 9/1/98-8/31/99

Therapeutic Use of Stem Cell Transplantation in Autoimmunity

Ronald P. Messner, Medicine
Patricia E. Tam, Medicine
Lupus Foundation Of America, Minnesota Chapter
\$14,795 - 1/1/99-12/31/99

Genetic and Clinical Characterization of Myotonic Dystrophy Type 2

Laura P.W. Ranum, Neurology
Muscular Dystrophy Association
\$200,000 - 1/1/99-12/31/99

Alpha Synuclein and Lewy Bodies

Karen Hsiao, Neurology
Massachusetts General Hospital
\$106,855 - 9/30/98-8/31/99

The Molecular Regulation and Cellular Mechanism of Cardiac Looping

Jamie L. Lohr, Pediatrics
American Heart Association, Inc.
\$260,000 - 1/1/99-12/31/02

Molecular Basis of Ornithine Transcarbamylase Deficiency

Mendel Tuchman, Pediatrics
Norma Allewell, Biochemistry, CBS
NIH, NIDDK
\$219,032 - 9/29/98-7/31/99

Dynamic Study of Human Brain Activity with fMRI And fMRS

Wei Chen, Radiology
Xiao-Hong Zhu, Radiology
Elizabeth R. Seaquist, Medicine
NIH, NINDS
\$320,192 - 12/1/98-11/30/99

Myoglobin Detection and Oxidative Metabolism

Kamil Ugurbil, Radiology
NIH, NHLBI
\$281,152 - 1/1/99-11/30/99

New Technique for fMRI Processing

Xiaoping Hu, Radiology
NIH, NIMH
\$73,496 - 1/10/99-12/31/99

A Phase I/II Study: Triple Immunosuppressive Therapy in De Novo Renal Transplant Recipients

Arthur Matas, Surgery
Protein Design Labs, Inc.
\$104,952 - 11/1/98-10/31/04

School-Based Study of Complex Environmental Exposures and Related Health Effects in Children, Part A

Ken Sexton, Public Health
Ian A. Greaves, Environmental and Occupational Health
Tim Church, Public Health
Environmental Protection Agency
\$899,264 - 1/26/98-1/25/01

Farm Family Exposure Study Task Force

Jack S. Mandel, Environmental and Occupational Health
 George Maldonado, Environmental and Occupational Health
 Tim Church, Public Health

American Crop Protection Association
 \$52,483 - 1/11/99-8/30/99

The Financial Impact of Third Party Prescriptions on Community Pharmacy

Stephen Schondelmeyer, Pharmacology
 Sam Wagner, Pharmacology

National Community Pharmacists Association Foundation
 \$10,103 - 10/1/98-4/1/99

Epidemiology of Infant Leukemia

Julie A. Ross, Pediatrics
 Leslie L. Robison, Pediatrics
 Joanne L. Slavin, Food Science and Nutrition, CHE

NIH, NCI
 \$385,198 - 2/9/99-12/31/99

Urinary Cotinine in Pregnant Women

Sharon E. Murphy, Cancer Center

University Of Alabama
 \$7,303 - 12/1/98-3/31/99

Minnesota Equine Research Center Research Grants

Mats Troedsson, Clinical and Population Sciences

Minnesota Racing Commission
 \$40,000 - 5/1/98-12/31/99

Improved Handles for Solid-Phase Peptide Synthesis

George Barany, Chemistry

NIH, NIGMS
 \$232,551 - 1/1/99-12/31/99

Polymerization Catalysis, Block Polymers, and NMR Characteristics

Marc A. Hillmyer, Chemistry
 Eric Munson, Chemistry

National Science Foundation
 \$172,500 - 1/15/99-12/31/99

Synthetic Approaches for Modeling Metal-Oxo Proteins

Lawrence Que, Jr., Chemistry

NIH, NIGMS
 \$40,760 - 4/1/98-3/31/99

Video Camera-Based 3D Digitizing Process

Richard Voyles, Computer Science

Minnesota Technology, Inc.
 \$59,870 - 12/14/98-12/31/99

Port-Based Agent Architecture for Self-Adaptive Software

Richard Voyles, Computer Science

Carnegie-Mellon University
 \$34,053 - 7/1/98-11/11/98

Designing a Timing Measurement System

Bapiraju Vinnakota, Electrical Engineering

Ironwood Electronics, Inc.
 \$64,000 - 1/4/99-6/15/00

Integrated Transformer Fabrication and Characterization

Stephen A. Campbell, Electrical Engineering

Minnesota Technology, Inc.
 \$60,400 - 1/1/99-12/31/99

A Magnetic Rapid Thermal Annealer

Stephen A. Campbell, Electrical Engineering

Advanced Research Corporation
 \$41,799 - 7/15/98-7/14/99

Modeling of Critical Thermal-Mechanical Behavior in Lithospheric and Mangle Dynamics

David A. Yuen, Geology and Geophysics

National Science Foundation
 \$132,800 - 1/1/99-12/31/00

Career Experimental Studies of Mantel Melting

Marc M. Hirschmann, Geology and Geophysics

National Science Foundation
 \$119,211 - 3/1/99-2/28/00

Combined TH-230 and PA-231 Dating: Establishing the Absolute Timing of Late Quaternary Climate Changes and Calibrating the 14C Timescale.

Lawrence Edwards, Geology and Geophysics

National Science Foundation
 \$79,758 - 1/1/99-12/31/99

Geologic Maps of Quaternary Deposits, Twin Cities

David L. Southwick, Geology and Geophysics

USDI, Geological Survey
 \$41,515 - 7/1/98-6/30/99

Southern Center for the Study of Secondary Air Pollutants

Peter H. McMurry, Mechanical Engineering

Georgia Institute of Technology
 \$110,000 - 4/1/98-3/21/99

Instrumentation for Chemical Characterization of Gas

Michale Zachariah, Mechanical Engineering

National Science Foundation
 \$86,225 - 1/1/99-4/30/99

Microassembly of Microelectromechanical Systems

Bradley J. Nelson, Mechanical Engineering

USDOD, Navy
 \$82,291 - 11/15/98-9/30/99

Integrated Microfluidic Systems for Molecular Processing

Bradley J. Nelson, Mechanical Engineering

University of Pennsylvania
 \$33,657 - 9/14/98-6/30/99

Exploratory Study of Nanoparticle Growth Kinetics

Michale Zachariah, Mechanical Engineering

National Science Foundation
 \$30,989 - 1/1/99-4/30/99

Histories of Noble Gases in Solar-System Materials

Robert O. Pepin, Physics and Astronomy

National Aeronautics and Space Administration
 \$173,000 - 3/15/99-3/14/00

Geotail Observations of ExB Flows and Associated Low Frequency Waves in the Magnetotail and their Dependence on Magnetic Activity and Interplanes

Cynthia Cattell, Physics and Astronomy

National Aeronautics and Space Administration
 \$84,000 - 2/1/99-2/1/00

Study of Substorm Associated ULF and VLF Waves in the Magnetotail Using Spacecraft Data

Naiguo Lin, Physics and Astronomy

Cynthia Cattell, Physics and Astronomy
 National Aeronautics and Space Administration
 \$55,000 - 2/15/99-2/15/00

Axial Unloading Device Therapy for Cervical Spine Rehabilitation

Paul A. Iaizzo, Anesthesiology

Arthur G. Erdman, Mechanical Engineering

Spinal Designs
 \$40,500 - 1/1/99-12/31/99

Evolutionary Genomics of Maize

John F. Doebley, Plant Biology

National Science Foundation
\$1,105,191 - 1/1/99-12/31/99**Molecular-Genetics of Variation for Complex Traits**

John F. Doebley, Plant Biology

NIH, NIGMS
\$214,460 - 1/1/99-12/31/99**Privatization in Nordic Health Care**

Robert K. Leik, Sociology

Thomas Choi, Health Services Research and Policy

Jon Christianson, Health Services Research and Policy

National Science Foundation
\$91,941 - 1/1/99-12/31/99**Grain Moisture-Density Sensor for a Combine**

Jonathan Chaplin, Biosystems and Agricultural Engineering

Agrichem, Inc.

\$62,750 - 8/1/98-7/31/99

Development of Biodegradable Corrosion Inhibitor Films

Mrinal Bhattacharya, Biosystems and Agricultural Engineering

Cortec Corporation

\$22,000 - 1/1/99-12/31/99

Wheat Breeding and Genetics

James A. Anderson, Agronomy and Plant Genetics

Minnesota Wheat Research and Promotion Council

\$150,000 - 8/3/98-12/31/00

Energy Sparing Effects and Energy to Amino Acid Ratios

Sally L. Noll, Animal Science

Minnesota Turkey Research and Promotion Council

\$10,000 - 7/15/98-6/30/99

Biological Control of Alfalfa Blotch Leafminer

George Heimpel, Entomology

St. of MN, Department of Agriculture

\$15,000 - 5/6/98-7/1/02

Nitidulidae Associated with Oak Wilt Mats/Upper Midwest

Steven Seybold, Entomology

U.S. Department of Agriculture

\$9,790 - 2/12/99-12/31/99

Application of Biotechnology to Control the Soybean Cyst Nematode

Nevin D. Young, Plant Pathology

James H. Orf, Agronomy and Plant Genetics

Iowa State University

\$59,678 - 10/1/98-9/30/99

Screening Hard Red Spring Wheat Germplasm for Tolerance to Septoria and Tan Spot Disease

James V. Groth, Plant Pathology

Robert H. Busch, Agronomy and Plant Genetics

Minnesota Wheat Research and Promotion Council

\$3,155 - 1/1/98-12/31/99

Cochran Fellowship Programs

John R. Vreyens, International Agriculture Programs

U.S. Department Of Agriculture

\$2,583 - 12/7/98-12/18/98

Upper Great Lakes Regional Earth Science Application Center

Marvin E. Bauer, Forest Resources

Thomas E. Burk, Forest Resources

Alan R. Ek, Forest Resources

National Aeronautics and Space Administration

\$1,500,000 - 2/3/99-2/3/00

Coordinate the National Conference on Enterprise Development through Agroforestry

Scott J. Josiah, Forest Resources

Environmental Protection Agency

\$15,000 - 5/1/98-5/1/99

Effects of Nutrient Reduction on Mississippi River and Gulf of Mexico

Patrick L. Brezonik, Civil Engineering

Environmental Protection Agency

\$99,623 - 2/13/98-2/28/99

Model Water Quality Cooperatives Pilot Project

Robert D. Sykes, Landscape Architecture

Thomas Fisher, Architecture

Legislative Commission on Minnesota Resources

\$300,000 - 7/1/97-6/30/99

Five District Integrating Partnership Evaluation

Karen S. Louis, Educational Policy & Administration

Elisabeth Palmer, Educational Policy & Administration

St Paul Public Schools

\$8,500 - 6/1/98-9/30/98

Radon Measurement and Mitigation Training

William J. Angell, Design, Housing and Apparel

Iowa Department of Public Health

\$18,000 - 1/1/99-6/30/99

High School Financial Planning Curriculum: Program Evaluating

Sharon M. Danes, Family Social Science

University of Wisconsin, Madison

\$8,499 - 1/1/97-1/30/99

Reduced Colonic Microbial Activity in Beef Fat: A Mechanism for Reducing the Risk of Colon Cancer

Daniel D. Gallaher, Food Science and Nutrition, CHE

Minnesota Beef Council

\$27,103 - 10/1/98-9/30/99

Conference on Children and Domestic Violence

Jeffrey Edleson, Social Work

National Institute of Justice

\$24,975 - 10/1/98-9/30/99

Information Technology and the Use of Informant in Managed Care

Jon Christianson, Health Services Research and Policy

Robert Wood Johnson Foundation

\$385,208 - 1/1/99-12/31/99

Take Charge Program

Edward P. Ehlinger, Kinesiology and Leisure Studies

Coca-Cola Foundation

\$37,907 - 11/18/98-12/31/98

East Side Community Outreach Partnership Center

Frederick W. Smith, Urban and Regional Affairs

U.S. Department of Housing and Urban Development

\$399,157 - 10/1/98-9/30/01

Minneapolis Training Program for Neighborhood Organizers

Jay Clark, Urban and Regional Affairs

Minneapolis Community Development Agency

\$10,000 - 5/1/97-5/31/98

Rural Telehealth Interactive Webcast and TV Broadcast

G. Edward Schuh, Humphrey Institute

C. Harris Stevens, Humphrey Institute

U.S. Department of Agriculture

\$279,617 - 2/20/98-2/19/01

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RESEARCH REVIEW

Office of Research and Technology Transfer
<http://www.ortta.umn.edu>

May 1999

Executive Briefing on the University's New Sponsored Projects Management System



Christine Mazier, Mark Yudof, David Hamilton, Robert Bruininks, Frank Cerra



Christine Mazier



Mark Yudof

More on page 8



A good crowd



A briefing, food, conversation, and entertainment

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Photos by Nancy Mellgren
Biomedical Graphics

Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612.624.5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612.626.9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 11

May 1999

Editor: Bruce Erickson

Editorial Assistant: Tove Jespersen

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Research Review is a monthly publication of the Office of Research and Technology Transfer Administration (ORTTA). Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Bruce Erickson, 612.625.2354, bruce@ortta.umn.edu, or Tove Jespersen 612.624.0061, tove@ortta.umn.edu.

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Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When developing budgets for proposals, please use the following rates.

Graduate and Professional Student Assistants

New *provisional* rates effective Fall, 1999

TA, RA, AF: standard	\$5.13/hr + 7.6%	of gross salary
TA, RA, AF: advanced master's or Ph.D.	\$.93/hr + 7.6%	
Summer quarter TA, RA, AF	—	7.6%
Summer session TA, with tuition	\$9.68/hr + 7.6%	
Summer session TA, without tuition	—	7.6%
Professional program assistant	—	7.6%
Dental fellow *	\$3.35/hr	—
Medical fellow *	\$2.57/hr	—

To the rates listed above, add 7.7% to the 7.6% when a graduate student is enrolled for fewer than 3 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental or medical fellows, or medical fellow specialists. **This is a change from previous years.**

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612.625.7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	24.4%	27.6%	14.2%
7/1/00 - 6/30/01	27.9%	27.4%	14.3%

Fringe benefit rates are determined by the Accounting Services Department; call Vivian Fickling, 612.624.2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe1999_2000.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Bruce Erickson, editor, at 612.625.2354, bruce@ortta.umn.edu.

Grants Management Project Payroll Encumbering

Good news! When the University implements PeopleSoft Payroll next spring, it will include comprehensive encumbering functionality. The mechanism for distribution of payroll to specific accounts will be online. For nonsponsored accounts, the system default for encumbering will be the U's fiscal year, and for sponsored accounts the system will use the official budget period dates for the grant. This may be manually overridden as needed when inputting payroll documents, for example when the payee is not scheduled to work the entire grant period. Encumbering will be possible for individuals, for positions (even if currently vacant), and for groups of positions.

It will be available for what is currently called positive pay and also for flexible hourly workers (based on an estimate). For employees whose effort level is relatively constant, encumbrances will be updated automatically by determining the number of pay periods left and the amount encumbered per pay period. Where effort levels fluctuate considerably, an estimate for the period can be supplied and the system will automatically update encumbrances by starting from the total estimated amount and subtracting what has been paid out so far. This method will accommodate both flexible hourly situations and those principal investigators whose total commitment is known but whose effort is not constant across the budget period of the grant. It will also apply to encumbering by position and groups of positions.

This comprehensive tool will greatly improve the accuracy and meaningfulness of the account balance data on financial reports. It will eliminate or greatly reduce the need for departments to maintain supplementary payroll data to adjust centrally produced reports.

Until the implementation of PeopleSoft Payroll, departments are encouraged to use the functionality available in the present system, and to adjust the unobligated balance on central reports with encumbrance data not available centrally, such as for flexible hourly workers. (There is a column for such adjustments on the Agency-Specific Expense Categories Summary. To use it, download the report and fill in the adjustment column and calculate the Balance after Adjustments amounts. For help with this process, contact FSS helpline at 612.624.1617). For situations with fairly constant effort levels, departments are urged to encumber grant payroll accounts by grant budget period. For highly volatile situations, it may be more convenient to shut encumbering off entirely for that account and calculate the remaining obligation manually. Letting the default end date apply to grant accounts is not recommended. For help with either converting present encumbrances to grant

{next column}

Sponsored Financial Accounting Question and Answer

Question: What is the process for deleting a sponsored Org?

Answer: Departments do not need to delete a sponsored Org — Sponsored Financial Reporting (SFR) performs this function. After SFR determines that all revenue has been received and expenses incurred, they will mark the account for 'purge' by marking an 'F' in the status field on the GDES table. Once a year, at Thanksgiving time, FSS deletes all 'purged' accounts.

Department staff can usually tell when an account has been marked for 'purge.' After they mark the account, SFR sets the report date field on the GDES for a month after this happens. Department staff will receive reports with '0' balances for that month. After that point, they will not get CUFS production reports. Please notify the FSS help line at 612.624.1617 if you continue to receive reports.

Department staff are often misled when they receive a budget worksheet during budget prep that lists sponsored accounts that they believe were already deleted. If this happens, *do not do anything*. *Do not* send an Org request form to Accounting Services to delete these accounts.

Reminder: Practice of Charging Nonsponsored Accounts for Pre-Award Expenses is No Longer Allowed

As announced in last month's issue, a new pre-award policy has been issued. This policy states that pre-award charges can no longer be made to nonsponsored accounts and then transferred to the sponsored account once the award is established. For expenses incurred to nonsponsored accounts under the old guideline, unit administrators reviewed the new policy, applied for an advance or pre-award account, and transferred the expenses as soon as possible. Effective July 1, these types of cost transfers *will not* be allowed. The University established this policy to strengthen its internal controls and to reduce the number of cost transfers being made between accounts. The cost transfer guidelines are being revised to incorporate the change.

budget periods or to shut encumbering off for a volatile account, register your request with the Grants Management Office at 612.625.9057 and someone will get back to you.

by Jeanne Gibbs, Consultant
Grants Management Project

Grants Management Project

Modular Grants are Not as Easy as NIH Thinks!

I want to put in a new application to NIH on June 1, 1999. The total direct costs will be less than \$250,000 and NIH says I have to use the modular format (actually, they will accept a detailed budget on that date, but they will convert it to modules). In looking over what NIH has put on the Modular Grant website (<http://www.nih.gov/grants/funding/modular/modular.htm>) it appears to be straightforward and simple, but hidden within that simplicity are pitfalls that could have significant consequences over the lifetime of the grant.

Claim. Modular Grants have been touted as the principal investigator's best friend because they make constructing a budget for a grant easy. All you have to do is add up how many \$25,000 modules you need and put the result on a simple form.

Fact. What NIH doesn't tell you are the following:

- You actually have to calculate very carefully to make certain that the number of modules will actually cover your projected costs, as well as inflationary increases.
- Management of the grant by the University is still subject to the same old federal regulations (e.g., OMB Circulars A-21 and A-110), which means that locally we have to have a detailed budget, with personnel, supplies, etc. identified.
- Indirect (now known as facilities and administrative [F&A]) costs are not calculated simply as a percentage of the total direct costs. Equipment and other things are

excluded from the calculation and need to be identified before the grant application can be submitted, because the F&A costs asked for have to be on the last page of the grant application (the checklist).

What does this mean for grants management at the University? Unfortunately, it means that in order to manage grants and not get into trouble over federal regulations, the University needs a detailed budget. Also, because we have the "exceptional" designation from NIH, they require that we submit a detailed budget prior to the award.

So, what am I going to do? I am going to use EGMS to compose a detailed budget and have the software convert it to the modular format (this will be available by May 1st). Why? Because it will take into consideration all of the bullets above and do the calculations automatically for me. Once it's done it's done, and when I receive notification that it is in the fundable range, SPA staff can immediately send the detailed budget to NIH and not delay the award while I belatedly prepare the required detailed budget.

When we come off designation we will not be required to submit detailed budgets to NIH, but we will still have the regulatory requirements to meet in order to manage the grant locally. It looks like detailed budgets are here to stay and in the long run the only winner is NIH, because Modular Grants will result in less work for them.

by David W. Hamilton
Professor of Genetics, Cell Biology and Development, and
Director, Grants Management Project

Update on Request for Prior Approvals from NIH

Approvals Must Be Sent Electronically

As a reminder, PIs and staff must send all NIH approval requests electronically. Principal investigators must write the requests and email them to their department heads, or deans if applicable.

The department head or dean must evaluate the request and *indicate approval in writing at the top of the request*. This statement can be as simple as, "I recommend for approval." The dean or department head must then forward the request to the appropriate SPA grant administrator or to prior@ortta.umn.edu if they don't know which grant administrator should receive it.

The grant administrator will evaluate the request and if it is approved, forward it for institutional authorization. The authorized signer will forward it to NIH.

63rd Annual Course

Advances in Breast, Endocrine, and Cancer Surgery

This course is designed primarily for surgeons, but may be of interest to other physicians involved in the care of these patients. The format will include lectures, moderated panel discussions, audience participation panels, and films of specific surgical procedures shown during the noon hour.

June 16-18
Wiley Hall

Costs:

\$550.00 – Physician
\$500.00 – Past Registrant
\$350.00 – Non-U Physician in Residency Training
\$250.00 – University of Minnesota Clinical Faculty and Retired Minnesota Physician.

Interested potential participants may access the full announcement and brochure at
<http://www.med.umn.edu/cme>

Research Subjects' Protection Programs

Assuring the Security of People and Animals

Assuring the security of people and animals, an ongoing priority for the University, has become even more important in light of last month's vandalism by the Animal Liberation Front. The University administration will continue to assess security, access, and safety throughout the campus and make thoughtful, reasoned plans for all our facilities.

While the University Police are charged with security for all University property, we all have a personal responsibility to do what we can to assure a safe working and learning environment.

It is a myth that because we are a public institution we must have open access to all our space. Research space is not public space.

The following suggestions are no-cost ideas for enhancing security in your work area. These steps can help ensure personal and property safety.

- Establish a "neighborhood watch" model for research facilities. Get to know your neighbors in your building or in your area. Meet and discuss strategies for assuring the safety of your space.

Much research is conducted "after hours." Find out when research labs are expected to be in use and when they should be unoccupied. Report any deviations. Know when staff are scheduled to handle animal care and charge those individuals with checking for locked doors and corridors.

- Revise departmental policies to make the securing of your area an important performance expectation. Employees should be warned that failure to comply with standards would result in discipline.
- Outlaw the practice of propping external doors open. Convenience is not an excuse for a security breach.
- Look for, question, and report unknown persons in unusual locations.
- Report graffiti or other signs of vandalism immediately.
- Require staff to wear identification. Question people who aren't wearing identification. If the situation is intimidating, don't confront but **CALL THE POLICE**. Acting Chief of Police, Steve Johnson has assured us that the police would prefer to respond to calls about suspicious

behavior and intervene before a problem arises, rather than deal with the aftermath of vandalism or theft.

- Lock every door you are responsible for whenever staff are not present.
- Secure valuable data in locked cabinets or drawers in all laboratories and office space.
- Implement protocols for back up of computer data and off-site storage.
- Lock away all videotapes or photos of animals used in research.
- Avoid the impulse to be "nice" and hold the door for a stranger in a secured area. Ask the person to self-identify or show their access card. Report any suspicious activity to the police.
- Use the University system for security monitors. The University has a staff of Security Monitors (624-WALK) who provide a uniformed escort for the campus commu-

nity. These monitors will meet you and escort you to your destination. If you expect to be in an isolated area alone, you can arrange for a security or "welfare check" where the monitor can stop back and check on you at prescribed time.

- Call for a monitor for short distance escorts if you are planning to transport animals or sensitive equipment.
- Arrange for special arrangements or a regular patrol schedule by calling the University Police Department.

Questions about general security can be directed to the University Police at 624-3550.

by Moira Keane, Director
Research Subjects' Protection Program
612.626.5654

Seminar Research Animal Resources

May 7th
1:00 - 2:00 p.m.
5-276 Millard

'LOOK, LOCK, AND DON'T PROP!'

Marianne Olson, University Police Detective, will discuss taking personal responsibility for security in the work place: animal facility, research laboratory, office.

Frequently Asked Questions About the Certified Approver Program

Why is the Certified Approver Program being established?

With the approval of President Yudof and Vice President Maziar, the University has adopted and is implementing a new grants management compliance and oversight model. To implement this model, the Certified Approver Program and the Office of Oversight, Analysis and Reporting are being created.

The Certified Approver Program will lead to the designation of qualified staff as "certified approvers," that is, staff who have the knowledge and experience they need to determine whether financial transactions initiated by principal investigators are allowable and affordable. Certified approvers will have the authority to determine whether proposed financial transactions are allowable on sponsored projects and will be responsible and accountable for exercising this authority. When certified approvers are in place in departments and centers, the current requirement that all financial transactions of \$500 or greater value be approved by Sponsored Projects Administration will be eliminated.

This approach to managing sponsored projects aligns the skills of certified approvers with the University's highest risk transactions on sponsored projects, eliminates the current practice of multiple approvals on financial transactions, and improves the efficiency of the business processes supporting grants management.

With Sponsored Projects Administration (SPA) removed from the transaction approval process, where can certified approvers turn for help?

SPA staff will continue to be available for expert advice and consultation as in the past, and certified approvers will be encouraged to use SPA staff for expert assistance. In addition, when a certified approver and principal investigator occasionally disagree about the allowability of a charge on a sponsored project, the issue will be resolved by the dean (or designee in the dean's office) rather than by a department or center head as in the past. In this way, a consistent collegiate approach will be applied to problem resolution and department heads will not need to appear to be taking sides with either principal investigators or administrators.

Will everyone who works on sponsored projects need to be certified?

No. In fact, many departments may have only one certified approver. Senior administrators within a department or center may be certified approvers and some grant accountants may be certified approvers. The exact number needed for a department, though, and their classification level will depend on such factors as the department's volume of

research, business practices, staffing levels, and experience of staff. It is not anticipated that principal investigators or department heads will become certified approvers.

How does someone become a certified approver?

Three conditions must be met to become a certified approver. First, an organizational need for a certified approver must exist. The department head will typically make this determination. Second, a candidate must demonstrate he or she has the required knowledge by passing a two-part test. Third, the candidate must be recommended by the department head and appointed by the respective dean.

Is training required before taking the test?

No. Many University staff currently perform the tasks of certified approvers and have the knowledge they need to perform their jobs well and to pass the test. However, Training Services offers classes that cover all the aspects of sponsored project management that will be covered in the tests. The list of classes that cover the test material and the times the classes are offered are available by calling Training Services.

When will the Certified Approver Program be implemented?

The Program will be implemented first in the Focused Grants Management Project departments, beginning in May. These departments include Biochemistry, Chemistry, Chemical Engineering & Materials Science, Epidemiology, Food Science & Nutrition, Pediatrics, Psychology, and Surgery. The Program should be fully implemented within the University by the end of 1999.

Where can I get more information about the Certified Approver Program?

You can arrange to have a member of the Certified Approver Program Development Committee provide an overview of the program by contacting Peggy Sundermeyer (612.626.7850) or you can submit specific questions to RschrTrng@umn.edu for future discussion in *Research Review*.

by Rob Super, Administrator
Research Programs

Expectations for a Research Enterprise

from the point of view of
our institution
our sponsors
our society and our faculty
our students

Program Highlights:

Opening remarks by President Yudof
Discussion of the New Intellectual Property Policy
Mastering Fiscal Accountability
Modular Grants and Funding Trends

Jointly presented by the
University of Minnesota
and the
National Institutes of Health

Please join us

Tuesday, June 8, 1999
8:30 a.m. - 4:30 p.m.
Coffman Memorial Union

For more information, or to attend, contact
Dee Anne Bonebright at
612-624-6550 or at
d-bone@tc.umn.edu

Patents and Technology Marketing New Manager of SOTA TEC Technology Development Fund

Fred Janzen, Technology Transfer Coordinator, is the new manager of the SOTA TEC Fund. Janzen holds a Ph.D. in chemistry from the University of Western Ontario, as well as an MBA. He has worked in the optical instrumentation field and, from 1989 until joining PTM in April 1999, he worked in technology transfer and business development in the medical devices field. He may be reached at 612.625.8816, fred@ortta.umn.edu.

Sponsored Projects Management

Executive Briefing

A standing-room-only crowd gathered on April 15 to hear about the University of Minnesota's new Sponsored Projects Management System. Speakers at the briefing included President Mark Yudof, David Hamilton, professor of genetics, cell biology and development and director of Sponsored Projects Management, Bob Bruininks, executive vice president and provost, Frank Cerra, senior vice president for Health Sciences, and Christine Maziar, vice president for Research.

President Yudof offered full cooperation and support from his administration and stressed that the new system reinforces the values that research must be conducted ethically, comply faithfully with federal, state, and local rules, and ensure good business practices. The other speakers stated that the new system builds a value-centered approach to research responsibility and is among the nation's best. Dr. Hamilton outlined the implementation plan and assured attendees that Sponsored Projects Management staff will work with researchers and departments to have everyone using the new system by June 30, 2000.

The briefing had demonstrations that are part of the system, including:

- Electronic Grants Management system (EGMS), a web-based system to aid investigators, departments, and grant administrators through the entire life cycle of sponsored grants and contracts, from proposal forms preparation, through receipt and acceptance of awards to final closeout of accounts, assuring compliance with the applicable sponsor and University regulations.
- Financial FormsNirvana (FFN), an electronic routing and approval system for preparing financial transaction documents on the web.
- Roles and Responsibilities in the proper conduct of research from the perspective of Office and Employee Class, and from the perspective of Research Process.

{next column}

- Financial Reports on the Web – Agency Specific Reports
- Financial Reports on the Web- Oversight Reports
- Faculty Expertise

"This is a celebration, which will be the beginning of the end of exceptional status," said Dr. Cerra. Officials hope this new system will encourage the National Institutes of Health (NIH) to drop the exceptional status designation given the University, and that it will keep Minnesota as one of the top research universities in the nation.

Minnesota Project Innovation

MPI Wins National Award

Minnesota Project Innovation (MPI) recently received the Outstanding Center of the Year award at the national spring conference of the Association of Government Marketing Assistance Specialists (AGMAS) on March 24, 1999. The award recognized the professionalism and expertise of MPI personnel in assisting Minnesota businesses in securing government contracts.

MPI is a nonprofit, economic development organization that also administers the Small Business Technology Transfer (STTR) program in Minnesota. STTR funds collaborations between research organizations and small businesses. MPI recently assisted WR Medical Electronics Company, based in Stillwater, and William R. Kennedy, U of M Department of Neurology, in a STTR NIH Phase II proposal for \$600,000.

Interviews of clients, related government agencies, and others can be arranged by MPI upon request. For more information, contact Pat Dillon at 100 Mill Place, 111 Third Avenue South, Minneapolis, MN 55401; 612.338.3280, fax 612.349.2603, pdillon@mpi.org. MPI's website is <http://www.mpi.org>.

What's New in Grants Management

an index to changes and announcements

May 1999

(month 11 of UM fiscal 1999)

This month there are no changes or announcements regarding grants management.

Patents Issued

January 1999 through March 1999

- 1. Title:** **Method and Apparatus for Implementing Maximum Transition Run Codes**
Purpose: Apparatus and method for coding to improve the minimum distance properties of sequence detectors operating at high densities in storage systems.
Inventors: Jaekyun Moon, Barrett J. Brickner, Electrical and Computer Engineering
- 2. Title:** **6-Alkynyl Steroids**
Purpose: Inhibitors of aromatase and useful for treating diseases such as breast cancer in mammals.
Inventors: Yusuf J. Abul-Hajj, Abraham O. Akanni, Medicinal Chemistry
- 3. Title:** **Method of Growing Rickettsiae in *Ixodes Scapularis* Tick Cell Culture and Preparing Antigens and Vaccines of Rickettsiae**
Purpose: A cell culture method that can be used in large scale production of rickettsia containing products useful in diagnostic assays and vaccine preparations.
Inventors: Ulrike G. Munderloh, Timothy J. Kurtti, Entomology; Katherine M. Kocan, Edmour F. Blouin, Sidney A. Ewing, Non-U
- 4. Title:** **Immunoconjugates Comprising Tyrosine Kinase Inhibitors**
Purpose: Immunoconjugates effective for treating cancers and autoimmune diseases in humans.
Inventors: Fatih M. Uckun, Therapeutic Radiology-Radiation Oncology
- 5. Title:** **Caged Nucleotides**
Purpose: Compounds useful for the photolytic generation of free nucleotides in aqueous samples, for example, in the study of calcium mobilization in cells and cell homogenates.
Inventors: Timothy Walseth, Pharmacology; Robert A. Aarhus, Richard M. Graeff, Hon Cheung Lee, Physiology; Kyle R. Gee, Richard P. Haugland, Non-U
- 6. Title:** **Production of Nanostructured Materials by Hypersonic Plasma Particle Deposition**
Purpose: A method and apparatus for the controlled synthesis and assembly of nanoparticles into nanostructured materials, including nanocomposites.
Inventors: Nagaraja P. Rao, Steven L. Girshick, Peter H. McMurry, Joachim V.R. Heberlein, Mechanical Engineering
- 7. Title:** **Heat Shock Protein Peptides that Share Sequences with Cyclic Nucleotide Phosphodiesterase and Methods for Modulating Autoimmune Central Nervous System Disease**
Purpose: The invention provides for peptides and methods of using peptides to block or inhibit a pathogenic autoimmune response to central nervous system components.
Inventors: Gary Birnbaum, Linda Kotilinek, Neurology; Peter E. Braun, Non-U
- 8. Title:** **Azavesamicols**
Purpose: Novel vesamicol derivatives with anticholinergic properties termed azavesamicols.
Inventors: Simon M.N. Efange, Radiology; Stanley M. Parsons, Non-U

9. **Title:** **Transgenic Non-Human Mammals with Progressive Neurologic Disease**
Purpose: A transgenic, non-human, eukaryotic animal whose germ cells and somatic cells contain the amyloid precursor protein sequence introduced into the animal, or an ancestor of the animal, at an embryonic stage.
Inventors: Karen Hsiao, Neurology; David R. Borchelt, Sangram S. Sisodia, Non-U
10. **Title:** **Immortalized Cell Lines for Virus Growth**
Purpose: The production and use of immortalized cell lines from primary chicken embryonic fibroblasts, useful as substrates for virus propagation, recombinant protein expression, and recombinant virus production.
Inventors: Douglas N. Foster, Linda K. Foster, Animal Science
11. **Title:** ***Candida Albicans* Gene, Integrin-Like Protein, Antibodies, and Methods of Use**
Purpose: An isolated and purified DNA molecule encoding *Candida albicans* protein with integrin-like motifs, the protein itself, antibodies thereto, and methods of use.
Inventors: Margaret K. Hostetter, Catherine M. Bendel, Cheryl A. Gale, Nianjun Tao, Pediatrics; Kathleen Kendrick, Non-U

Patents Issued Prior to First Quarter 1999 but Not Previously Reported

12. **Title:** **Polyethylene Glycol Derivatives for Solid-Phase Applications**
Purpose: Pertains to polyethylene glycol (PEG) derivatized graft supports, methods for making these supports, and methods of using the supports to synthesize peptides for solid-phase synthesis techniques.
Inventors: George Barany, Fernando Albericio, Nuria Solé, Jane Chang, Samuel Zalipsky, Chemistry
13. **Title:** **Metal-Regulated Transporters and Uses Therefore**
Purpose: Isolated nucleic acid molecules encoding novel members of the MRT family of polypeptides; transgenic plants in which expression of an MRT polypeptide is altered may be used to remove pollutants from soil or as nutritional supplements to treat iron- or zinc-deficiency.
Inventors: David J. Eide, Medicine, Duluth; Mary Lou Guerinot, Non-U

**Technology Transfer Agreements
January 1999 through March 1999**

1. **Title:** **Monoclonal Antibodies Reactive with Native and Denatured Cytochrome C from Various Species**
Purpose: Technology that provides monoclonal antibodies which are useful in research relating to apoptosis, (programmed cell death).
Inventors: Ronald R. Jemmerson, Microbiology
Licensee: Promega Corporation Nonexclusive License Agreement
- 2-5. **Title:** **Apple Tree called MN 1824 ("Zesta!") Minnewashta**
Purpose: An apple tree with vigorous growth in early years and little winter injury, with annual fruit production having a well-balanced flavor, crisp and juicy.
Inventors: David S. Bedford, James J. Luby, Horticultural Science
Licensee: Cummins Nursery Nonexclusive Plant Patent and Trademark Agreement
Northwind Nursery Nonexclusive Plant Patent and Trademark Agreement
Edible Forest Nursery Nonexclusive Plant Patent and Trademark Agreement
TRECO Nonexclusive Plant Patent and Trademark Agreement

6. **Title:** **Strawberry Plant called "MNUS 210" (Winona)**
Purpose: A strawberry for Midwest U.S. climates that bears a large fruit in late season and resists disease.
Inventors: James J. Luby, Horticultural Science; David K. Wildung, North Central Experiment Station; Gene J. Galletta, Non-U
Licensee: Lewis Nursery and Farms, Inc. Nonexclusive Plant Patent and Trademark Agreement
7. **Title:** **Strawberry Plant called "MNUS 210" (Winona)**
Strawberry Plant called "MNUS 248" (Mesabi)
Purpose: Strawberry plants for Midwest climates that bear large fruit and resist disease.
Licensee: MEIOSIS, Limited Exclusive Plant Patent and Trademark Agreement
- 8-11. **Title:** **Apple Tree: Honeycrisp**
Purpose: An extremely crisp, sweet apple that stores well.
Inventors: David S. Bedford, James J. Luby, Horticultural Science
Licensee: Schlabach's Nursery and Orchard Nonexclusive Plant Patent and Trademark Agreement
G.W. Allen Nursery, Ltd. Nonexclusive Plant Patent and Trademark Agreement
Biringer Nursery Nonexclusive Plant Patent and Trademark Agreement
Agri Sun Nursery Nonexclusive Plant Patent and Trademark Agreement
12. **Title:** **Transgenic Circulating Endothelial Cells**
Purpose: For expanding the population of endothelial cells; the resulting cells are useful to biocompatibilize implantable medical devices, or can be used directly, as for gene therapy.
Inventors: Robert P. Hebbel, Medicine; Yi Lin, Biomedical Engineering; John S. Lollar, Non-U
Licensee: Octagen Corporation Exclusive Option Agreement
13. **Title:** **Method of Removing Organic Volatile and Semi-Volatile Contaminants from an Aqueous Solution**
Purpose: A process for treating contaminated water that results in clean water and a smaller volume of more highly contaminated oil.
Inventors: Michael J. Semmens, Civil Engineering
Licensee: Membran Corp. Exclusive License Agreement
14. **Title:** **Strawberry Plant named "MNUS 248" (Mesabi)**
Purpose: A cold-climate, high-yield strawberry that bears in midseason and resists disease.
Inventors: James J. Luby, Horticultural Science; David K. Wildung, North Central Experiment Station; Gene J. Galletta, Non-U
Licensee: Ontario Berry Growers Assoc. Nonexclusive Plant Patent and Trademark Agreement
15. **Title:** **Staging of Bronchiolitis Obliterans Syndrome Using Home Spirometry**
Purpose: Software for early detection of rejection in lung transplant patients.
Inventors: Stanley M. Finkelstein, Laboratory Medicine and Pathology; Marshall I. Hertz, Medicine
Licensee: CuraMED Systems, Inc. Exclusive License Agreement
16. **Title:** **Corn cDNA Mapping from Oat-Corn Chromosome Addition Lines and Corn-Oat Introgression Lines (C.O.I.L.S.)**
Purpose: A tool contributing to characterizing the corn genome, and in doing so, will contribute to the development of improved corn varieties.
Inventors: Evgueni V. Ananiev, Ronald I. Phillips, Oscar Riera-Lizarazu, Howard W. Rines, Agronomy and Plant Genetics
Licensee: Pioneer Hi-Bred International, Inc. Nonexclusive License Agreement

17. **Title:** **The Nature of Wood and Wood Based Products**
Purpose: A CD-ROM containing a series of modules designed to provide a basic understanding of wood as a raw material, and of principal products made of wood.
Inventors: James L. Bowyer, Ruth Smith, Wood and Paper Science
Licensee: Forest Products Society Exclusive Software License Agreement
18. **Title:** **Test Using the Energy Consumption Ratio**
Purpose: An algorithm to use in testing for failure of integrated chips.
Inventors: Wanli Jiang, Bapiraju Vinnakota, Electrical and Computer Engineering; Max J. Cortner, Non-U
Licensee: Guidant/CPI Exclusive License Agreement
19. **Title:** **AMSOL Version 6.0**
Purpose: A computer program for semiempirical quantum mechanical calculations including solvation models.
Inventors: Christopher J. Cramer, Donald G. Truhlar, Chemistry
Licensee: Semichem, Inc. Nonexclusive Software License Agreement
20. **Title:** **Transgenic Chickens using Long-Term Cultures of Undifferentiated Primordial Germ and/or Embryonic Stem Cells**
Purpose: To generate chickens that accumulate desirable protein products in the egg, i.e., production of monoclonal antibodies for therapeutic uses.
Inventors: Federico A. Ponce De Leon, Animal Science
Licensee: Avian Biotechnology, Inc. Exclusive License Agreement
21. **Title:** **Test Device and Method for Quantitative Measurement of an Analyte in a Liquid**
Purpose: A device and method for determining the concentration of an analyte, particularly useful to screen for cystic fibrosis in an individual.
Inventors: Leland G. Hansen, Warren J. Warwick, Pediatrics
Licensee: Polychrome Medical, Inc. Exclusive License Agreement
22. **Title:** **Ready-to-Use Horticultural Peat Pellets**
Purpose: Pellets that make peat use more versatile for horticultural and turfgrass uses. They are easily handled and can be used to increase organic material in soil and as a carrier for biological organisms and fertilizers.
Inventors: Timothy S. Hagen, Thomas J. Malterer, Natural Resources Research Institute, Duluth
Licensee: Minnesota Sphagnum, Inc. Exclusive License Agreement
Conrad Fafard, Inc. Exclusive License Agreement
Hyde Park Products, Inc. Exclusive License Agreement
23. **Title:** **Biological Control of Purple Loosestrife**
Purpose: A novel, isolated, and purified strain of *Sphaeropsis sp* is produced providing a mycoherbicidal composition that is effective in controlling purple loosestrife.
Inventors: Roger L. Becker, David R. Johnson, Elizabeth J. Katovich, Donald L. Wyse, Agronomy and Plant Genetics; Robert F. Nyvall, North Central Experiment Station
Licensee: ENCORE Technologies, Inc. Exclusive License Agreement

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

Dexter, S.L., Anderson, R.E., Becker, H.J. Teachers' views of computers as catalysts for changes in their teaching practice. *Journal of Research on Computing in Education* 31.3 (1999): 221-239.

LaBat, K., Sokolowski, S. A three-stage design process applied to an industry-university textile product design project. *Clothing and Textiles Research Journal* 17.1 (1999): 11-20.

DeLong, M., LaBat, K., Gahring, S., Nelson, N., Leung, L. Implications of an educational intervention program designed to increase young adolescents' awareness of hats for sun protection. *Clothing and Textiles Research Journal* 17.2 (1999): 73-83.

Tiberius, V. Justifying reasons for valuing: an argument against the social account. *Southern Journal of Philosophy* 37.1 (Spring 1999): 141-158.

Chang, T.K. China from here and there. *Media Studies Journal* 13.1 (Winter 1999): 32-+.

Farmer, E.L. From admiration to confrontation. *Media Studies Journal* 13.1 (Winter 1999): 136-+.

Holmes, T.J. How industries migrate when agglomeration economies are important. *Journal of Urban Economics* 45.2 (Mar. 1999): 240-263.

Smith, P.J. Do knowledge spillovers contribute to U.S. state output and growth? *Journal of Urban Economics* 45.2 (Mar. 1999): 331-353.

Glomb, T.M., Munson, L.J., Hulin, C.L., Bergman, M.E., Drasgow, F. Structural equation models of sexual harassment: longitudinal explorations and cross-sectional generalizations. *Journal of Applied Psychology* 84.1 (Feb. 1999): 14-28.

White, B.M. The woman who married a beaver: trade patterns and gender roles in the Ojibwa fur trade. *Ethnohistory* 46.1 (Winter 1999): 109-147.

Thoma, S.J., Rest, J.R. The relationship between moral decision making and patterns of consolidation and transition in moral judgment development. *Developmental Psychology* 35.2 (Mar. 1999): 323-334.

Crick, N.R., Casas, J.F., Ku, H.C. Relational and physical forms of peer victimization in preschool. *Developmental Psychology* 35.2 (Mar. 1999): 376-385.

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Rose, A.G., Miller, L.W., Shumway, S.J. Status epilepticus and cardiac transplantation. *Transplantation* 67 (1999): 641-642.

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Please send your new citations to Tove Jespersen, tove@ortta.umn.edu

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More Information

To generate copies of NIH and NSF application forms, please go to,

EGMS at <http://nirvana.ortta.umn.edu>, or to

NIH at <http://www.nih.gov/grants/forms.htm>, or to

NSF at <http://www.nsf.gov/pubsys/index.htm>

(For help, call the EMGS Help Line at 612.618.8747)

For funding searches

please contact the

Office of the Vice President for Research

612.625.7585; facgrant@gold.tc.umn.edu,

<http://www.research.umn.edu/research.html>.

Procter & Gamble

International Program for Animal Alternatives

The purpose of this program is to provide funds for research in biological sciences. Specifically, the program funds the development and the scientific validation of replacements for, or improvement in, current animal methods for efficacy and safety testing used in the development of new drugs and other consumer products. This year's program will select proposals relevant to use of animals in research on cardiovascular and skeletal muscles, including the following:

- Myocyte hypertrophy
- Myocyte atrophy/wasting
- Markers of myocyte hypertrophy/atrophy/wasting
- *In Vivo* imaging of muscle hypertrophy/atrophy
- Myoblast differentiation
- Myocyte regeneration
- Myocyte apoptosis
- Myocyte toxicity
- Computer models of myocyte physiology/biochemistry

Funding will be provided for up to three proposals each year. The maximum funding for each awarded proposal will be \$75,000 per year for a period of up to two years. Funds are intended to be sufficient to support one independent research unit and may be expended as determined by the principal investigator.

The application deadline is **August 15, 1999**. A program brochure which includes an application form may be obtained from Program Administrator, International Program for Animal Alternatives, The Procter & Gamble Company, Miami Valley Laboratories, PO Box 538707, Cincinnati, OH 45253-8707; fax 513.627.1153, extresprgim@pg.com; or at the website at <http://www.pg.com/about/rnd>.

Centers for Disease Control

Measles

The Centers for Disease Control and Prevention (CDC) announces the availability of funds to support research into the pathogenesis of measles virus in a primate model. The purpose is to achieve the following goals:

1. Use the rhesus macaque as a primate model for measles infections;
2. Characterize the immune response to natural measles disease and measles vaccination;
3. Develop improved measles vaccines;
4. Evaluate immune response to individual measles virus antigens.

Approximately \$300,000 is available to fund two awards, averaging \$150,000 for a 12-month budget period within a three-year project.

The application deadline is **June 2, 1999**. To receive additional written information and to request an application kit, call 1.888.GRANTS4 (1.888.472.6874). You will be asked to leave your name and address and will be instructed to identify the announcement number 99066. You may also go to the CDC home page at <http://www.cdc.gov>.

National Oceanic and Atmospheric Administration

Harmful Algal Blooms Project

The National Oceanic and Atmospheric Administration, in cooperation with other federal agencies, is soliciting research proposals for the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) program, providing support for research on all aspects of harmful algal bloom ecology and oceanography in U.S. coastal waters. ECOHAB will support projects ranging from laboratory studies by individual investigators, to small research teams, to coordinated, well-integrated, multidisciplinary field programs. Studies will also support predictive models and address gaps in knowledge related to mechanisms that regulate harmful algal species.

All cooperating federal agencies will maintain separate funding mechanisms, a common review process will be used to evaluate and select proposals.

The application deadline is **June 7, 1999**. A complete program description, other requirements, and standard NOAA application forms are available at <http://www.cop.noaa.gov>.

American Heart Association

The American Heart Association announces its National Research Program for 1999. Research programs available for this deadline are:

- Scientist Development Grant
- Established Investigator Grant
- Grant-in-Aid
- AHA-Bugher Foundation Awards for the Investigation of Stroke (new!)

Program information, application instructions, and application forms may be found at the AHA website <http://www.americanheart.org>. (Look for Science and Professional; click on Research; then look for AHA National Research Programs). AHA *strongly encourages* electronic submission of applications via FTP. Formats for both Windows and Macintosh are available.

The application deadline is **June 15, 1999**. Forms are also available on disk. SPA has a few; for others call Joanne Kauffman at 214.706.1457; fax 214.706.1341; Joannek@heart.org.

There is an option to submit proposals electronically. The deadline is the same, and submission through this method will require the same institutional approvals as paper submission. For further information, call Liz Li at Sponsored Projects Administration, 612.624.0810.

U.S. Department of Agriculture Pest Management Alternatives

Proposals are invited by the U.S. Department of Agriculture for the Pest Management Alternatives program. This program addresses anticipated changes in pest management on food, feed, livestock, and ornamental commodities resulting from implementation of the Food Quality Protection Act of 1996.

The goals of the program are to 1) develop and demonstrate alternatives and possible mitigation strategies to ensure that crop producers have reliable methods of managing pests; and 2) develop crop profiles and summarize production practices, pesticide use and usage data, and available pest management alternatives for pesticides considered a high priority for tolerance reassessment.

Approximately \$1.5 million will be available to support this program.

The application deadline is **June 1, 1999**. To obtain copies of the announcement and application materials contact Proposal Services Unit, Office of Extramural Programs, Co-

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operative State Research, Education, and Extension Service, U.S. Department of Agriculture, Mail Stop 2245, 1400 Independence Avenue SW, Washington DC 20250-2245; 202.401.5048, psb@reeusda.gov. Indicate that you are requesting forms for Special Research Grants Program—Pest Management Alternatives Research. Include your name, mailing address, and telephone number.

Department of Education Preparing Tomorrow's Teachers to Use Technology CFDA 84.342

The U.S. Department of Education announces the "Preparing Tomorrow's Teachers to Use Technology" Program. The purpose is to provide grants that help future teachers become proficient in the use of modern learning technologies. Support is provided for three types of grants: capacity building grants; implementation grants; and catalyst grants.

Only consortia may receive grants under this program. A consortium must include at least two members, and may include institutions of higher education, Schools of Education, State educational agencies, local educational agencies, private schools, professional associations, foundations, museums, libraries, for profit agencies and organizations, nonprofit organizations, community-based organizations, and others.

\$75 million is available to fund 200 capacity building grants, 75 implementation grants, and 35 catalyst grants.

The application deadline is **June 4, 1999**. The complete announcement may be accessed at <http://www.ed.gov/news.html>.

BFGoodrich Collegiate Inventors Program

The BFGoodrich Collegiate Inventors Program is an annual competition open to all full-time college or university students in the United States. Applicants must submit a new invention, idea, or process that must be original, and the result of work completed by the student—or team of students—under a faculty advisor.

Each year, up to six student/advisor teams are awarded cash prizes up to \$42,000 and are honored during the National Inventors Hall of Fame induction.

The application deadline is **June 1, 1999**. To download applications forms go to <http://www.invent.org>. Scroll down and click on the BFGoodrich Collegiate Inventors Program.

■ National Science Foundation

In Brief

Long-Term Observations in the Arctic: Environmental Observatories Remote/Autonomous Instruments Sample Repositories.
NSF 99-101

To increase the availability of long-term environmental data in the Arctic. Proposals should include a scientific justification for long-term measurements and the infrastructure requirements to establish and implement measurements at an environmental observatory for up to five years, the rationale for building and installing remote autonomous instrumentation, or the establishment of sample (other than ice) repositories that provide long-term community-wide access.

An estimated \$3.7 million is available in FY99; \$5.3 in FY00; \$3.0 in FY01; \$3.0 in FY02; and \$2.5 in FY03. 10-20 awards will be made.

The application deadline is **June 25, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99101>.

Multilingual Information Access and Management NSF 99-102

Intended to further the knowledge required to build information systems that operate in multiple languages; to provide the technologies required for their application in a number of social and organizational contexts; and to demonstrate the validity of the approaches chosen. Proposals will be accepted from European Union-United States multi-partner projects with teams from at least two countries from the EU and at least one team from the US.

Approximately \$2 million will be available to fund at least two awards.

The application deadline is **July 5, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99102>.

Large Scientific and Software Data Set Visualization NSF 99-105

This program will support research to improve the ability to understand large sets, simulation results, and software systems. It encourages use of these improved methods on data sets from experiments and simulations of real scientific interest and on large software systems.

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Approximately \$10 million is available to fund 12-18 awards.

The application deadline is **July 6, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99105>.

Digital Government NSF 99-103

To fund research at the intersection of the computer and information sciences research communities and the mid- to long-term research, development, and experimental deployment needs of government information service communities. Academic/government collaborations are expected to contribute to government strategic planning for information services while providing interesting and unique new research problems and data sets for the academic research community.

Approximately \$3 million will be available to fund 10-20 awards.

The application deadline is **July 15, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99103>.

■ Environmental Protection Agency "Supersites" Program

The Environmental Protection Agency requests applications for the 1999 investigator-initiated Particulate Matter (PM) "Supersites" monitoring program that will provide information of value to the atmospheric sciences, human health, and human exposure research communities. The program will be implemented through individual projects in as many as five study areas in the U.S. Each individual project will be an ambient atmospheric measurement study.

To foster interaction among potential applicants across a spectrum of scientific disciplines, EPA has organized a discussion session on the evening of June 7, 1999 at the Durham Marriott at the Civic Center, Durham, NC. Further information about this meeting is posted at <http://www.epa.gov/ttn/amtic/supsites.html>.

The application deadline is **August 4, 1999**. The complete announcement may be accessed at <http://www.epa.gov/ncerqa> under 'announcements.' For further information contact U.S. Environmental Protection Agency, National Center for Environmental Research and Quality Assurance (8703R), 401 M Street SW, Washington DC 20460; 800.490.9194.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by SPA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at SPA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
March 1999	332	\$ 84,947,772
Awards Processed		
March 1999	337	37,282,639
Proposals Submitted		
July 1998 - March 1999	2,993	632,054,151
Awards Processed		
July 1998 - March 1999	2,384	276,674,649
Proposals Submitted		
July 1997 - March 1998	3,021	611,715,630
Awards Processed		
July 1997 - March 1998	2,309	291,575,791

Alfred Maurer Conservation, Catalogue, and Exhibition Project

Lyndel I. King, Art Museum
 Patricia McDonnell, Art Museum
 National Endowment for the Arts
 \$25,000 - 1/1/99-12/31/99

University for Seniors, an Institute for Learning in Retirement

Jory H. Peterson, Summer Session, Duluth
 Minnesota Humanities Commission
 \$6,000 - 1/29/99-12/31/99

Developmental Genetics of Mouse Embryogenesis

William Shawlot, Genetics and Cell Biology
 Minnesota Medical Foundation
 \$20,000 - 2/1/99-2/1/00

Molecular Mechanisms of Axonal Guidance and Pathfinding

Paul C. Letourneau, Cell Biology and Neuroanatomy
 Minnesota Medical Foundation
 \$11,000 - 3/1/99-2/29/00

Functional MRI Investigations of Visual Perception

Paul R. Dassonville, Physiology
 Seong-Gi Kim, Radiology
 National Science Foundation
 \$90,902 - 10/1/98-9/30/99

A Solubilized Cellulose Pilot Trial

Joseph Keenan, Family Practice and Community Health
 Joel J. Pins, Family Practice and Community Health
 Fiberstar Corporation, Inc.
 \$52,433 - 9/15/98-2/15/99

Chemokine Receptors and Integrin Function in Prostate Cancer

James B. McCarthy, Laboratory Medicine and Pathology
 USDOD, Army
 \$421,821 - 1/15/99-8/14/01

Polymerase Chain Reaction (PCR) Assay for Rapid Detection of Fungal Infection

Jo-Anne Van Burik, Medicine
 NIH, NIAID
 \$43,740 - 1/15/99-6/30/99

Analysis of Angiogenic Net Balance in Patients with Non-Small Cell Lung Cancer

Arkadiusz Dudek, Medicine
 Minnesota Medical Foundation
 \$12,000 - 1/31/99-2/2/00

The Role of Sexually Transmitted Diseases in Male Infertility

Timothy W. Schacker, Medicine
 Minnesota Medical Foundation
 \$9,000 - 2/1/99-2/1/00

Glycine Antagonist in Neuroprotection

Arthur C. Klassen, Neurology
 Columbia University
 \$138,000 - 10/14/98-10/13/99

Effects of Therapy with Donepezil on Functional Magnetic Resonance Imaging in Patients with Mild Alzheimer's Disease

David Knopman, Neurology
 Haiying Liu, Radiology
 Pfizer, Inc.
 \$105,303 - 11/4/98-11/3/99

Salvage vs. Amputation Following Limb Threatening Injury

Marc F. Swionkowski, Orthopaedic Surgery
 Univ. of Washington, NIH Prime
 \$13,771 - 7/1/98-12/31/98

Role of Antigen Presenting Cells in Rhabdomyosarcoma Immune Response

Bruce Blazar, Pediatrics
 Minnesota Medical Foundation
 \$10,000 - 11/15/98-11/14/99

Magnetic Resonance Spectroscopy for Neurological Conditions

Sean O'Casey, Radiology
 Paul J. Tuite, Neurology
 Minnesota Medical Foundation
 \$14,000 - 1/1/99-12/31/99

MRI Analysis of Candy

Bruce E. Hammer, Radiology
 Hershey Foods Corp.
 \$5,000 - 3/1/90-3/1/00

Photofix Vascular Patch Implantation in the Sheep Model

Richard W. Bianco, Surgery
 Sulzer Carbomedics, Inc.
 \$73,290 - 3/1/98-2/28/99

Statistical Methods to Assess Environmental Justice

Bradley P. Carlin, Biostatistics
 Thomas Louis, Biostatistics
 Emory University
 \$108,669 - 8/1/98-7/31/99

Childhood Injury in Washington State Agriculture

Bruce Alexander, Environmental and Occupational Health
 Centers for Disease Control
 \$206,376 - 12/8/98-9/29/99

Approaches to Obesity Treatment in a Managed Care Setting

Robert W. Jeffery, Epidemiology
 NIH, NIDDK
 \$624,840 - 3/1/99 - 2/29/04

Identification of Characteristics of an Optimal Diet for Pregnancy

Judith E. Brown, Epidemiology

Minnesota Medical Foundation
\$25,000 - 2/1/99-2/1/00

Economic Impact of Outpatient Prescription Drug Coverage on Total and Specific Health Care Expenditures and Service Use of Medicare Benefits

Margaret Artz, Pharmacy
Ronald S. Hadsall, Pharmacy

Health Care Financing Administration
\$21,579 - 1/11/99-1/11/00

Spanish-Speaking Day Treatment

Amos S. Deinard, Community University Health Care Center
Otto Bremer Foundation
\$71,200 - 1/1/99-12/31/01

Role Modeling Interventions for Family Boundary Ambiguity

Patricia S. Tomlinson, Nursing

Children's Hospital, St. Paul
\$19,588 - 6/1/98-12/31/99

Designer Paths for Guided Axon Extension in Three-Dimensional Structures

Wei-Shou Hu, Chemical Engineering and Materials Science
Mark D. Distefano, Chemistry
Paul C. Letourneau, Cell Biology and Neuroanatomy

National Science Foundation
\$168,658 - 9/15/98-8/31/99

Magnetic Metal/Semiconductor Heterostructures

C.J. Palmstrom, Chemical Engineering and Materials Science

USDOD, Navy
\$110,000 - 1/1/99-12/31/01

Structure and Dynamics of Polymer Mixtures

Timothy P. Lodge, Chemistry

National Science Foundation
\$354,000 - 4/1/99-3/31/02

Back-Analysis of the Thermo-Hydraulic Experiment

Emmanuel Detournay, Civil Engineering

AECL Research, Canada
\$40,800 - 6/1/98-2/28/99

Mechanisms for Secure and Robust Agent-Based Distributed Computing

Anand Tripathi, Computer Science

National Science Foundation
\$169,758 - 10/1/98-9/30/00

Distributed JVM Research

Pen-Chung Yew, Electrical and Computer Engineering

Intel, Inc.
\$90,000 - 12/10/98-12/9/99

Unsupervised Document Set Exploration using Divisive Partitioning

Daniel L. Boley, Electrical and Computer Engineering

National Science Foundation
\$60,745 - 9/15/98-8/31/99

Active Views for Relational Databases

Jaideep Srivastava, Electrical and Computer Engineering

Honeywell, Inc.
\$8,000 - 9/14/98-12/31/98

Collaborative Research and Development Project for the Global File System

Matthew T. O'Keefe, Electrical and Computer Engineering

National Aeronautics and Space Administration
\$356,667 - 2/1/99-2/1/00

A Utility-Friendly Battery-Charging Infrastructure for Powering Electric Vehicles and Wireless Communication

Ned Mohan, Electrical and Computer Engineering

National Science Foundation
\$140,614 - 9/15/98-8/31/00

Nanoelectronic Circuit Technologies

Richard Kiehl, Electrical and Computer Engineering

USDOD, Navy
\$120,000 - 4/1/99-3/31/02

Fault Detection with the Energy Consumption Ratio

Bapiraju Vinnakota, Electrical and Computer Engineering

Cardiac Pacemakers, Inc.
\$61,500 - 9/15/98-9/14/99

Perovskite Transistor Demonstration

Stephen A. Campbell, Electrical and Computer Engineering

Oak Ridge National Laboratory
\$14,000 - 2/11/99-4/1/99

Designing a Timing Measurement System

Bapiraju Vinnakota, Electrical and Computer Engineering

Ironwood Electronics, Inc.
\$12,600 - 11/20/98-6/15/99

Numerical Modeling of Mixing of Chemically Reacting, Non-Newtonian Slurry for Tank Waste Retrieval

David A. Yuen, Geology and Geophysics

U.S. Department of Energy
\$307,986 - 8/15/98-9/14/01

Melting and Mass Transfer in the Central American Arc from Pa-231, Th-230 and Ra-226 Systematics

Marc M. Hirschmann, Geology and Geophysics

National Science Foundation
\$154,907 - 2/1/99-1/31/02

Paleoclimate and Geomagnetic Field Variability

Subir K. Banerjee, Geology and Geophysics

Stefanie Brachfeld, Geology and Geophysics

Joint Oceanographic Institute
\$20,727 - 6/12/98-2/29/00

Environmental Magnetism of the West African Margin

Subir K. Banerjee, Geology and Geophysics

Peter A. Solheid, Geology and Geophysics

Joint Oceanographic Institute
\$5,027 - 2/16/99-6/15/99

Integratable Systems: from Classical to Quantum

Willard J. Miller, Mathematics

National Science Foundation
\$10,000 - 10/1/98-9/30/99

Experimental and Modeling Studies of Nanometer Aerosol Filtration

David Y. Pui, Mechanical Engineering

Da-Ren Chen, Mechanical Engineering

U.S. Department of Energy
\$310,114 - 9/15/98-9/14/00

Heat Transfer Enhancement in Separated and Vortex Flows

Richard J. Goldstein, Mechanical Engineering

U.S. Department of Energy
\$147,446 - 9/1/98-8/31/99

Biosensor Microfluidics and Packaging

Susan C. Mantell, Mechanical Engineering

Affymax Research Institute
\$100,001 - 12/21/98-12/20/99

Software and Hardware Design for Testing Equipment

Arthur G. Erdman, Mechanical Engineering

Minnesota Technology, Inc.
\$39,886 - 2/1/99-12/30/00

An Investigation of Visual Guided Micromanipulation Using Active Optical Systems

Bradley J. Nelson, Mechanical Engineering
National Science Foundation
\$97,600 - 9/14/98-7/31/99

Dilution Factors Influencing Diesel Aerosol Size Distribution

David B. Kittelson, Mechanical Engineering
Winthrop F. Watts, Mechanical Engineering
Environmental Protection Agency
\$28,449 - 8/1/98-7/30/99

The Skyflash Program

John R. Winckler, Physics and Astronomy
National Aeronautics and Space Administration
\$7,500 - 7/1/98-6/30/99

Climate Reconstruction in the Upper Great Lakes Region Using Pollen Analogs

Margaret Davis, Ecology, Evolution and Behavior
National Science Foundation
\$110,000 - 9/15/98-8/31/99

Microscopic Charcoal Analysis from Pollen Cores

Margaret Davis, Ecology, Evolution and Behavior
USDI, National Park Service
\$2,000 - 9/14/98-3/1/99

Supermarket Shopper Profiles and Preference

Benjamin Senauer, Applied Economics
Alfred P. Sloan Foundation
\$10,000 - 1/15/99-10/1/99

Process and Material Development for Biodegradable Paintball

Mrinal Bhattacharya, Biosystems and Agricultural Engineering
Minnesota Technology, Inc.
\$81,563 - 12/15/98-2/16/00

Identifying the Red Flourbeetle Source in the Shingle

B. Subramanyam, Entomology
St. of Minn., Department of Agriculture
\$11,740 - 6/17/98-11/30/98

Nitidulid Species Associated with Oak Wounds

T.C. Skalbeck, Entomology
U.S. Department of Agriculture
\$10,000 - 3/27/98-6/30/99

Grassland Bird Study

W. Daniel Svedarsky, Agriculture and Natural Res., Crookston
USDI, Geological Survey
\$69,913 - 4/1/98-12/31/99

Minnesota Valley Wildlife Refuge Internship Program

Philip J. Splett, Natural Resources
USDI, Fish and Wildlife Service
\$5,000 - 4/23/98-9/30/99

Assess the Status of the Tiger and its Forest Ecosystems in Vietnam

James L. Smith, Fisheries and Wildlife
USDI, Fish and Wildlife Service
\$12,740 - 11/1/97-9/30/99

Great Lakes Population of Piping Plover Research Review

Francesca J. Cuthbert, Fisheries and Wildlife
USDI, Geological Survey
\$10,000 - 9/10/98-6/1/00

Organic Binding and Photochemistry of Mercury Forms

Paul R. Bloom, Soil, Water, and Climate
Patrick L. Brezonik, Civil Engineering
U.S. Department Of Interior
\$56,064 - 9/1/98-8/31/00

Developing Science Curriculum for Language Immersion Education

Diane Tedick, Curriculum and Instruction
Constance Walker, Curriculum and Instruction
USDE, Office Of Postsecondary Education
\$42,000 - 3/31/98-8/31/99

Modifying Minnesota Graduation Standards

James E. Ysseldyke, Educational Psychology
Martha Thurlow, Educational Psychology
St. of Minn., Department of Children, Families, and Learning
\$163,968 - 4/1/98-3/31/99

Dimensionality of Deviant Employee Behavior in the Workplace

Paul R. Sackett, Industrial Relations
Melissa L. Gruys, Industrial Relations
U.S. Department of Defense
\$10,000 - 7/1/98-6/30/99

The Role of Customer Relationships in Electronic Commerce

Lester A. Wanniger, Information and Decision Sciences
Daniel B. Wackman, Journalism and Mass Communications
William K. Durfee, Mechanical Engineering
National Science Foundation
\$169,999 - 10/1/98-9/30/00

Linking Transit, Economic Development, Sustainable Community Development

Lee Munnich, Humphrey Institute
Hennepin County
\$162,975 - 6/2/98-6/30/99

Children's Literature Research Collection Manuscripts and Illustration Project

Karen N. Hoyle, Library Administrative Services
Barbara Stelmasik, Library Administrative Services
National Endowment for the Humanities
\$99,352 - 10/1/98-9/30/00

Role of Complement Activation in Occupational Asthma

Jean F. Regal, Medicine, Duluth
Whiteside Institute for Clinical Research
\$4,996 - 1/1/99-12/31/99

Access: Making Water Quality Data Real and Relevant for Minnesotans

George E. Host, Natural Resources Research Institute, Duluth
Richard Axler, Natural Resources Research Institute, Duluth
Hennepin Parks
\$278,664 - 11/1/98-10/31/00

Clay Grade Analysis, Minnesota River Valley

Steven A. Hauck, Natural Resources Research Institute, Duluth
John J. Heine, Natural Resources Research Institute, Duluth
St. of Minn., Department of Natural Resources
\$9,000 - 2/23/99-6/30/99

Metastatic Breast Cancer Stimulation of Osteolysis

Merry Jo Oursler, Biology, Duluth
Whiteside Institute for Clinical Research
\$5,000 - 1/1/99-12/31/99

Collaborative Research Paleoceanographic Records of Western Arctic

James McManus, Large Lakes Observatory, Duluth
National Science Foundation
\$36,805 - 3/1/99-2/29/00

Heritage Preserver's 1999 Heritage Forum, Lecture Series

Elizabeth S. Blake, Academic Affairs, Morris
Minnesota Humanities Commission
\$3,000 - 12/30/98-12/31/99

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A Quick Reference Guide

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Mailing List Changes

ORTTA cannot change the faculty mailing list.

It is generated by Human Resources and changed in your department.

For faculty changes, please call your **departmental** payroll or Human Resources coordinator.
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RESEARCH REVIEW

Office of the Vice President for Research

<http://www.ortta.umn.edu/resrev.htm>

June 1999

University of Minnesota Hosts First Annual Technology Fair

Staff from the University's Patents and Technology Marketing office hosted the first annual Technology Fair on May 17 to introduce business and private sector representatives to University researchers and their projects.

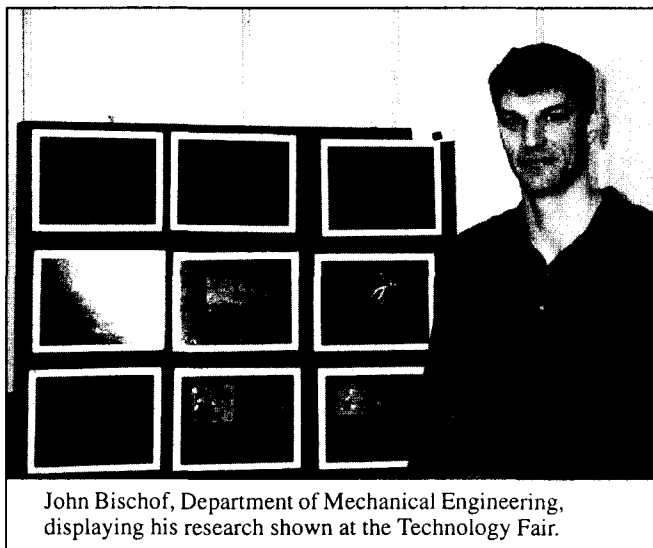
Departments with faculty presenting research included: Medicine, Plant Biology, Mechanical Engineering, Veterinary Diagnostic Medicine, Veterinary PathoBiology, Radiology, Laboratory Medicine and Pathology, Institute of Human Genetics, General Biology, Electrical and Computer Engineering, Medicinal Chemistry, College of Pharmacy, Chemistry, and Biochemistry, Molecular Biology and Biophysics. Companies represented at the fair included 3M, IBM, Honeywell, Ecolab, General Mills, ATG Laboratories, Andersen Corporation, SOTA TEC, and others.

Vice President for Research and Dean of the Graduate School Christine Maziar, Regent Dallas Bohnsack and keynote speaker President Yudof addressed the crowd. They emphasized the importance of public-private collaborations in getting research from the University out to the people of Minnesota.

With the keynote address President Yudof committed to expanding the University's relationships with the private sector saying, "Partnerships are crucial to moving innovations from the lab to the marketplace, in support of the University's mission to make the fruits of its efforts available in forms beneficial to the public."

Yudof used the Digital Technology Center as an example of these partnerships. The Center's mission is to "develop a center of excellence at the University and to form a partnership with the community to recapture Minnesota's commanding position in digital technology.

For more information about technology transfer, please look at the Patents and Technology Marketing website at <http://www.ortta.umn.edu/patents.htm> or call 612.624.0550.



John Bischof, Department of Mechanical Engineering, displaying his research shown at the Technology Fair.

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Indirect Cost Rates

The rates listed below come from the University's most recent indirect cost agreement, dated *May 19, 1995*. This date should be used where required on applications. For periods beyond June 30, 1999, the rates listed below are *provisional*.

In rare cases, particular grant programs have maximum rates that are lower than the rates below. If you need to know which rate to use for a proposal, please call Sponsored Projects Administration, 612.624.5599. If you have questions on indirect cost rate development, please call Steve Bradley, 612.626.9895.

Predetermined Rates for 7/1/95-6/30/99

Research

On-campus	47.00%
Off-campus *	26.00%
SAFL on-campus	54.00%
SAFL off-campus *	26.00%
Hormel on-campus	50.00%
Hormel off-campus *	26.00%

Other Sponsored Activity

On-campus	35.00%
Off-campus *	26.00%

Instruction

On-campus	52.00%
Off-campus *	26.00%

* A project is considered off-campus if more than 50% of the direct salaries and wages of its personnel are incurred at a site neither owned nor leased by the University of Minnesota.

RESEARCH REVIEW

Volume XXVIII, Number 12

June 1999

Editor: Bruce Erickson
 Editorial Assistant: Tove Jespersen
 Associate Vice President: Ed Wink

Research Review is a monthly publication of the office of the Vice President for Research. Its purpose is to inform faculty, students, administrators, and staff who are involved with sponsored research and technology transfer about procedures and policies of granting agencies, about institutional policy, about funding opportunities, and about other information necessary to the preparation of research proposals.

Research Review welcomes ideas and comments from all readers. Write to *Research Review* at 1100 Washington Avenue South, Suite 201, Minneapolis, MN 55415-1226, or call Bruce Erickson, 612.625.2354, bruce@ortta.umn.edu, or Tove Jespersen 612.624.0061, tove@ortta.umn.edu.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Research Review is available electronically at <http://www.ortta.umn.edu>. It is also available on request to those who need it in other formats, such as Braille or audiotape.

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Fringe Benefit Rates

When developing budgets for proposals, please use the following rates.

Graduate and Professional Student Assistants

New provisional rates effective Fall, 1999

TA, RA, AF: standard	\$5.13/hr + 7.6%	of gross salary
TA, RA, AF: advanced master's or Ph.D.	\$.93/hr + 7.6%	
Summer quarter TA, RA, AF	—	7.6%
Summer session TA, with tuition	\$9.68/hr + 7.6%	
Summer session TA, without tuition	—	7.6%
Professional program assistant	—	7.6%
Dental fellow *	\$3.35/hr	—
Medical fellow *	\$2.57/hr	—

To the rates listed above, add 7.7% to the 7.6% when a graduate student is enrolled for fewer than 3 credits, or less than 1 credit for advanced master's students and Ph.D. candidates. This charge is for Social Security (6.2%) and Medicare (1.5%).

* The additional 7.7% is never charged for dental or medical fellows, or medical fellow specialists. **This is a change from previous years.**

For more information about GA job classes and fringe rates, contact George Green, associate dean of the Graduate School, 612.625.7368, green007@tc.umn.edu.

Other Job Classes

	Civil Service	Academic	Post-doc class #9546
7/1/98 - 6/30/99	25.6%	27.1%	13.9%
7/1/99 - 6/30/00	24.4%	27.6%	14.2%
7/1/00 - 6/30/01	27.9%	27.4%	14.3%

Fringe benefit rates are determined by the Accounting Services Department; call Vivian Fickling, 612.624.2009.

Complete details of fringe benefit rates for all classes of UM employees are available at www.fpd.finop.umn.edu/groups/ppd/documents/rates/fringe1999_2000.cfm.

Rate changes will be reflected in this section.

Your News Here?

Research Review welcomes contributions. It arrives in campus mail about the 10th of each month; it goes to press six working days before the end of the month. Contributions are due 11 working days before the end of the month. Contact Bruce Erickson, editor, at 612.625.2354, bruce@ortta.umn.edu.

Offices of the Vice President for Research and Sponsored Projects Administration

Closeout Process for Fixed-Price Projects

Sponsored projects can be funded in several ways. Most projects are "cost reimbursable" where the sponsor funds the project to the extent described in the award notice. The sponsor reimburses the University only for actual costs incurred; any unspent funds revert to the sponsor.

Some projects, however, are "fixed-price." In a fixed-price award, the principal investigator agrees to accomplish project objectives within a specific timeframe for a set dollar amount. The award amount remains constant, even if actual costs for the project are above or below it. Any overexpenditures are the responsibility of the department, and unspent funds do not revert to the sponsor.

When the end date on a fixed-price project has arrived, and the project and deliverables are completed, the principal investigator should request the remaining direct cost balance be transferred to a nonsponsored account (if the project and deliverables have not been completed, the principal investigator must request a no-cost extension). To initiate the process, the principal investigator should write a letter or e-mail including the following information:

- A statement that the project is complete.
- A statement that all deliverable and contract requirements have been met.
- A statement that the sponsor is satisfied and that all revenue has been received.
- A nonsponsored account number to which the balance should be transferred. The nonsponsored account must have an 1198 fund number and must carry a function code of the activity for which the balance will be used. The function does not have to be the same as for the original award.
- If the balance is greater than 10 percent of the total award, the closeout request must explain the reason for the large balance and the department head must sign the letter. If the request is made by e-mail, the department head must write a statement indicating approval. This documentation is required to assist the University in preserving the classification of these activities as "non-profit."

The principal investigator must forward this letter to the grant administrator in Sponsored Projects Administration assigned to the project. The grant administrator will confirm that the contract end date has passed, the award was indeed fixed-price, and the University has been fully paid for work done.

Note

- On occasion, the Office of the Vice president for Research negotiates a reduction from the published Facilities and Administrative (F&A or indirect cost) rate in order to make a project proposal more competitive for funding. If such a reduction is negotiated and a balance remains in the fixed-price account, the F&A account will be reimbursed before the balance is released to the department. For example, if a waiver has been obtained to charge a research project a 25 percent F&A/indirect cost rate instead of the published 47 percent rate and there is a balance, the entire project will be charged the 47 percent rate. If the balance is insufficient to recover the full 47 percent, then the full balance is reclaimed, and nothing is returned to the department.
- Deans and department heads can use the *Fixed Price Account Balances* report (<http://financial.reports.umn.edu>) to see if there is a pattern by principal investigators or departments of over- or underestimating the cost or effort needed to complete a project. The report provides the current balances of an account where the price was fixed for the outcome proposed and the end date has been reached.

This article outlines the University's established practice for handling fixed-price closeout. Any changes will be effective July 1, 1999. These changes may be:

- Requirement for department head signature for balances over 10 percent of the entire award.
- Charging the published F&A rate against any balance.

Research Subjects Protection Programs

Consent Form Update

All consent forms used in studies involving human subjects in the health and biological sciences need to be revised to include the changed telephone number of the Patient Relations department at Fairview. The new number is: 612.273.5050. This number typically appears at the end of the consent form in the section on contact for questions about subject's concerns. Also, please be sure to include the area code in all phone numbers.

Begin using the revised document with the next enrollee. If this is the only change you make in the form, you *do not* need to submit a revised consent form to the Institutional Review Board (IRB) at this time. If you have questions, call the RSPP office at 612.626.5654.

Moirra Keane, Director
Research Subjects Protection Programs

Sponsored Projects Administration

Revisions to the Effort Policy and Procedures

Sponsored Projects Administration has revised the *Effort Policy* and its procedures to incorporate changes made to other policies. They also reformatted the documents so they conform to current policy and procedure standards. For example much of the information in the 'Definitions' section is now in procedures. Procedure 2.1.1.2 "Certifying Effort Statements" has been simplified, and instructions for generating departmental effort statements has been moved to their separate procedure. Other significant changes include:

- Added special situation when Veterans Administration staff are also University staff. These individuals must certify cost-shared effort.
- Added 'common paymaster' special situation. These individuals do not have to certify that time.
- Mandated use of preaward accounts in accordance with new preaward policy.
- Revised signatory authority – in accordance with changes to *PI Eligibility* policy, civil service employees cannot sign for academic personnel unless the civil servant is principal investigator or has supervisory responsibility for the person being certified.
- Mandated that when employees work in multiple departments, they must have effort coordinated by their supervisors and therefore will have multiple signatures.
- Revised policy on accepting statements. Although all effort statements should be submitted in a single mailing, if there is a special circumstance where one or two statements will not be completed in time, all completed signed statements can be submitted with a note that lists which statements are missing.

The revised policy can be found on the list of research policies at <http://www.ortta.umn.edu/policy/respolicy.htm> and in the policy library at http://www.fpd.finop.umn.edu/groups/ppd/documents/policy/Effort_Certification.cfm.

Controller's Organization

New Policy on Uncollectible Costs on Sponsored Accounts

The Controller's Organization is finalizing a new policy and related procedures for treatment of uncollectible costs on sponsored accounts. Uncollectible costs are defined as any costs charged to a sponsored project that will not be reimbursed by a sponsor. Examples include cost overruns, unallowable or unallocable costs, balances not collectible because of disputes, or bankruptcy by the sponsor.

The policy, to be effective on July 1, 1999, requires uncollectible amounts to be moved promptly by departments from sponsored accounts to nonsponsored accounts. Amounts not moved by departments within a specified time frame will be moved by the Controller's Organization to newly established default nonsponsored accounts. It will be the responsibility of departments to cover costs moved to these accounts with nonsponsored funds.

For fiscal year 1999-2000, four new funds have been established for the default accounts. For each CUFS area that has or may have sponsored project activity, three new default fund-area-orgs will be established by the Controller's Organization, one for each function code associated with sponsored projects.

The current lists of uncollectible amounts on sponsored accounts for each Resource Responsibility Center (RRC) are being distributed as attachments to the FY 2000 budget instructions. RRCs should review the accounts and amounts reported, and contact Sponsored Financial Reporting with any questions. In July 1999 (period 01, FY 2000), the Controller's Organization will move the uncollectible amounts not yet resolved to the new nonsponsored default accounts. Thereafter, uncollectible costs are to be moved in accordance with the new policy.

Sponsored Projects Administration

Mary Lou Weiss Steps Down After 42 Years of Service

On the afternoon of Wednesday, April 28, staff from Sponsored Projects Administration (SPA) held a retirement party for Mary Lou Weiss. Mary Lou was employed by the University for 42 years, most of them in the administration of research.

Many friends and colleagues from among faculty and staff, current and former employees, and family gathered to show their appreciation for her many years of exemplary service to the department and the University—and to nibble from the sumptuous table of desserts provided by SPA staff.

Ed Wink, Associate Vice President for Research, spoke briefly, and Mary Lou responded with a short talk about her experiences while working at the University. Other friends also spoke and offered their congratulations and best wishes.

Although officially retired, faculty and staff may be assured that Mary Lou is not completely lost to SPA. After some days of vacation, Mary Lou is returning to SPA on a part-time basis to continue handling special accounts.

Research Animal Resources

Per Diem Chart

Effective July 1, 1999

<u>Species</u>	<u>Price</u>
Calves	8.50
Cats	3.35
Chickens and Ducks	.95
Chicks (up to 14 days)	.26
Chicks (15-45 days)	.50
Chinchilla	.66
Dogs	4.42
Dogs and Cats with Litter	6.00
Ferrets	3.35
Guinea Pigs	.62
Lizards and Newts	.28
Non-Human Primates (Baboons)	6.03
Non-Human Primates (Macaque)	3.75
Rodents: Small/Large Box Charge	
Conventional	.37/.84
SPF	.42/.94
Autoclaved	1.48/1.84
Pigeons	.80
Pigs	5.30
Rabbits	1.33
Rana Frogs	.38
Rats-Suspended Metal Cages	.32
Sheep and Goats	5.77
Turtles	.75
Xenopus Frogs	
Small Tank	.52
Large Tank	1.04
Post-Operative Care	19.70

Reminder

Expectations for a Research Enterprise

Tuesday, June 8, 1999

8:30-4:30pm.

Coffman Memorial Union

For more information, or to attend, contact

Dee Anne Bonebright at

612.624.6550, or at

d-bone@tc.umn.edu

Research Animal Resources

College of Veterinary Medicine

Per Diems 1999-2000

Effective July 1, 1999

<u>Species</u>	<u>Size/Housing</u>	<u>Per Diem</u>	
Cattle:	Birth-150 lbs	3.95	
	Calf with Milk Replacer	6.24	
	150-350	4.69	
	700+ (stention)	6.31	
	700+ (pen)	7.88	
	Bull 500+	8.62	
Pigs:	weaning – 50 lbs	1.44	
	Pig with litter milk	2.10	
	50-125	2.56	
	125+	3.50	
	farrowing crate in conventional barn	7.88	
Horses:	up to 350 lbs.	4.30	
	350-700	5.39	
	700+ (tie stall)	8.62	
	700+ (box stall)	11.12	
	Outside group housing in pole barn & corral	7.24	
	Rosemount Lot	6.82	
	Rosemount Pasture	3.00	
	Sheep/Goats:	weaning to 50 lbs	.90
		kids/lambs with milk replacer	1.27
		50+	2.31
mother with kids or lambs		3.85	
Turkey:	1-18 days	.08	
	19-46	.18	
	47-63	.32	
	64-77	.54	
	77+	.83	
	Chicken:	1-18 days	.08
19-46		.18	
46+		.33	
Laying chickens in layer cages		.89	
Incubator (120 VSB) per day/room		New 3.05	
Isolator room A/B by room weeks (R/W)	59.48		
Isolation rooms containing farrowing crates, Horace Bauer units brooders, and other cages; this includes calves that need milk replacer 2x/day	12.31		
Hay:	Alfalfa	3.22	
	Grass	2.34	
	Straw	1.61	

Status Update to OMB Circular A-110 Revisions

The article entitled "Update to Confidentiality of Research Data" in the March 1999 issue of the Research Review reported that the Office of Management and Budget (OMB) published revisions to Circular A-110 regarding the confidentiality of research data. These revisions were a result of the Fiscal Year 1999 Omnibus Appropriations bill passed by Congress.

OMB took comments on their proposed revisions until April 5, 1999. As of that date, the agency had received over 9,000 comments to its proposal, which according to OMB officials is an unusually high number of responses. Altogether almost half of the total comments came from universities and opponents of the legislation, indicating that OMB's revisions would not settle many of the problems likely to result from the change. Many researchers, higher-education professionals, and university officials charged that the proposed revisions would have negative and extensive consequences for research. Additionally, they felt the revisions would have a chilling effect on public and private research collaborations and could discourage people from volunteering as research subjects if there was no guarantee of confidentiality.

OMB reports that it needs more time to review the responses and currently does not have details regarding their next steps. OMB officials also comment that there have been no policy decisions made at this time, the policy options are still open, and the language is not finalized. OMB stated that there will probably be a second notice in the *Federal Register* within the coming months with more details about future action.

Because most people believe the OMB proposed revisions have gone as far as possible to protect confidentiality, they are looking to repeal the legislation or secure a delay in implementation to allow more time to study the implications of the law.

Questions on the OMB revisions, can be emailed to F. James Charney, policy analyst for OMB, at fcharney@omb.eop.gov or call him at 202.395.3993. OMB's website address is <http://www.whitehouse.gov/WH/EOP/omb>.

A detailed list of
names and telephone numbers of
Sponsored Financial Reporting staff
may be found at
<http://www.ortta.umn.edu/sfrstafflist.html>

National Science Foundation New Cost-Sharing Policy for University Research

The National Science Board, the agency overseeing the National Science Foundation (NSF), approved a new cost sharing policy on May 7, 1999. NSF managers are now prohibited from considering a university's willingness to share research costs when deciding on the most-qualified recipients. Cost sharing requirements must be clearly stated in the program announcement and will be considered an eligibility rather than a review criterion. Researchers may continue to negotiate cost sharing with agency officials but these discussions will occur either prior to the review process to establish the project's eligibility for consideration or after merit review has been completed.

The new policy also states that during budget negotiations, if NSF program managers decide to reduce a grant award by 10 percent or more from the proposed amount, the chosen recipients should reduce the scope of the project. The proposed project may be carried out at a lesser level of support from NSF and the agency will not expect universities to contribute any additional uncompensated funds.

NSF issued the new policy in response to complaints from researchers that NSF staff members required them to provide matching or cost sharing funds as a condition of receiving a research grant. As a result, some institutions refusing to offer these resources lost out on grants. Researchers argue that cost-sharing favors universities with large, well-financed research activities that are better able to absorb the match.

NSF will not be the only federal agency to make changes to its cost sharing policy. The National Science and Technology Council encouraged all federal agencies to clarify their cost-sharing practices. The Council, comprised of officials from the federal agencies that fund university-based research, made their recommendations in a recent report entitled "Renewing the Federal Government-University Partnership for the 21st Century." President Clinton gave the Council one year to propose how the agencies could make suggested improvements.

NSF's policy can be found at <http://www.nsf.gov/bfa/cpo/policy/cs42399.doc>. Copies of the Council's report are available by faxing requests to 202.456.6021. Text of the President's memo on the report can be found at http://www.usnewswire.com:80/topnews/Current_Releases/0427-128.htm

National Institutes of Health

Reminder: NIH Requires Applications in Modular Format

As reported in previous *Research Review* articles, NIH announced that as of the June 1, 1999 application due date, all competing individual research project grant (RO1), small grant (RO3), and exploratory/developmental grant (R21) applications with direct costs \$250,000 per year must be submitted with budgets compiled in modules of \$25,000. NIH will accept detailed budgets on June 1, but they will make the awards in modules. At subsequent due dates NIH will accept only modular budgets for these types of grants and neither study sections nor NIH staff will see detailed budgets.

Articles in the April and May issues of *Research Review* discussed advantages of the modular budget format versus the detailed budget. The Executive Committee of the University addressed this issue recently and decided that preparation of a detailed budget prior to submission of NIH Modular Grants is necessary and should be an administrative policy of the University. Committee members made this decision for two primary reasons:

NIH's general announcement that no detailed budget was necessary was modified for the University of Minnesota

because we are on "exceptional" status. For University of Minnesota applications, a detailed budget must be sent to NIH before an award is actually made.

To adhere to federal and local regulations and to be able to locally manage grants, the University needs more information than is compiled in the modular budget format. These regulations include *OMB Circular A-21*, *OMB Circular A-110* and the cost accounting standards.

Principal investigators do not need to develop two budgets (modular and detailed) for each NIH proposal if they use the Electronic Grants Management System (EGMS). All they need to do is develop their detailed budget, click the appropriate button, and the information will *automatically* be converted into the modular format.

The EGMS team has completed a job aid for preparing the modular application on EGMS. It is available on the EGMS web site at <http://nirvana.ortta.umn.edu/gems/jobaid.html>. Consult your SPA grant administrator for further information.

National Institutes of Health

Inclusion of Children in Research

A new website has been created to provide additional information about implementation of the NIH policy on Inclusion of Children. The website includes a questions and answers section, explanation of review codes that will be used, and provides several case studies to assist investigators in evaluating when children should be included in research studies supported by NIH.

Go to <http://www.nih.gov/grants/funding/children/children.htm>.

What's New in Grants Management

SPA Update 9922 - Policy on Uncollectible Costs on Sponsored Accounts

Notice Issued: 6/1/99 Supersedes: na Effective date: 7/1/99

Change: New policy and procedure

Action to take: See the related article on page 4 of the June *Research Review*.

SPA Update 9923 - Revisions to Effort Policy

Notice Issued: 6/1/99 Supersedes: policy updated 9/95 Effective date: 7/1/99

Change: Revised policy and procedures

Action to take: See the related article on page 4 of the June *Research Review*.

Patents and Technology Marketing Copyright Term Extended

The Sonny Bono Copyright Term Extension Act, signed into law on October 27, 1998, amends the provisions concerning duration of copyright protection. Effective immediately, the terms of copyright are generally extended for an additional 20 years. Specific provisions are as follows:

For works created after January 1, 1978, copyright protection will endure for the life of the author plus an additional 70 years. In the case of a joint work, the term lasts for 70 years after last surviving author's death. For anonymous and pseudonymous works and works made for hire, the term will be 95 years from the year of first publication of 120 years from the year of creation, whichever expires first;

For works created but not published or registered before January 1, 1978, the term endures for the life of the author plus 70 years, but in no case will expire earlier than December 31, 2002. If the work is published before December 31, 2002, the term will not expire before December 31, 2047.

For pre-1978 works still in their original or renewal term of copyright, the total term is extended to 95 years from the date that copyright was originally secured.

For background information on copyrights, see the article entitled, "How Does University-Developed Software Get Transferred to Public Use?" in the April 1998 issue of the *Research Review*, <http://www.ortta.umn.edu/rr/98-04>. If you have further questions, contact PTM's Software Specialist Jim Hildebrand, 612.624.9568, jim-h@ortta.umn.edu.

You may view this legislation at the Copyright Office Website at <http://www.loc.gov/copyright/legislation/s505.pdf>.

Sponsored Projects Administration Ordering Equipment

Question:

May I order equipment while waiting for formal approval from the sponsor?

Answer:

Yes. Since the project already has an account number, this becomes a prior approval issue rather than a preaward issue. If you are waiting for approval from your sponsor, you may charge the equipment to a *nonsponsored account*, then transfer the charge when approval has been obtained.

Grants Management Project Some Resources for Using the Electronic Grants Management System

The Electronic Grants Management System (EGMS) team has developed numerous resources to assist EGMS users. They include:

Helpline – 612.618.8747. This helpline is staffed during business hours by a member of the EGMS team.

User Guide - <http://www.research.umn.edu/egms/>. This User Guide provides information to help EGMS users. The first chapter provides background material about EGMS and gives a brief description of the features of the EGMS system. The second chapter provides information on getting started. Other chapters have been drafted and will be put on that site as they are completed.

Quick Help - <http://nirvana.ortta.umn.edu/index.html>. The EGMS team has designed a pop-up screen to answer specific questions as a proposal is being developed.

Labs: Training Services has laboratory sessions staffed by a member of the EGMS team available for individuals to work on their EGMS proposals. The labs are held every other Friday. Call Training Services at 612.626.1373 for further information.

Job-Aid - <http://nirvana.ortta.umn.edu/gems/jobaid.html>. The EGMS team has developed a one-page job aid for preparing applications to the National Institutes of Health in the new modular format.

Fastlane Proposal Deadlines

The grant administrator in SPA needs to be given access to full and/or partial FastLane proposals **three (3) working days** before the NSF submission deadline. The hard copy is due at SPA by 5 p.m. the day before the electronic submission is to take place. We have not been receiving many of the Fastlane proposals early enough! The three days is needed to allow proper review, to allow time for corrections that cannot be made by SPA, and to allow for unanticipated Internet slowdown or downtime. To date, all FastLane proposals have been submitted on time, but it is likely that if there is not adherence to the SPA deadline, there will be proposals that don't make the NSF deadline.

Sponsored Projects Administration Levels and Trends for Fiscal 1998

The Sponsored Projects Administration is preparing to publish *Levels and Trends in Sponsored Programs, Fiscal Year 1998*, its annual report of research and technology transfer statistics. The following information is taken from the forward of the report by Christine Maziar, vice president for Research and dean of the Graduate School, and Ed Wink, associate vice president of Sponsored Projects Administration:

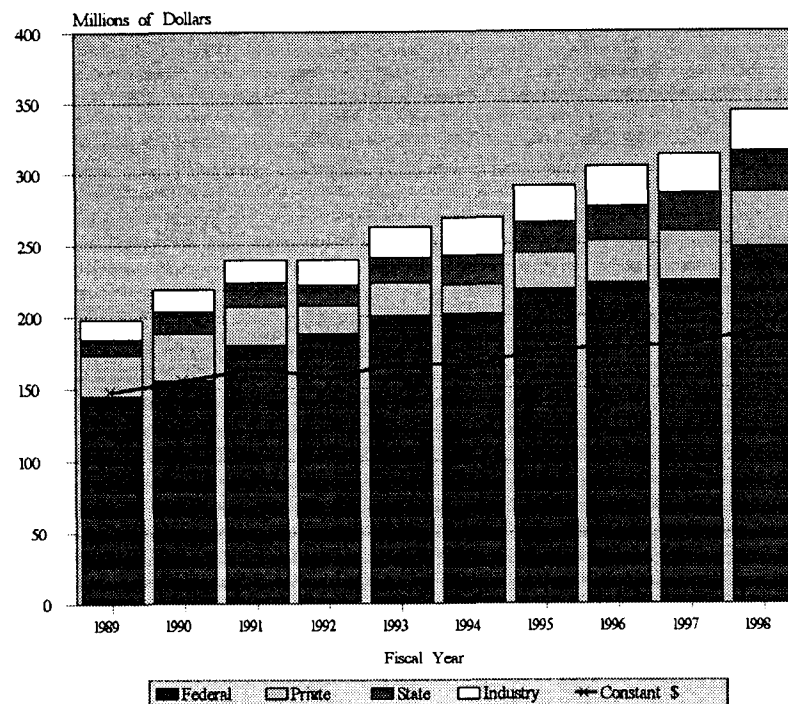
Sponsored research expenditures increased to \$344 million, up by approximately 10 percent from 1997. This increase is substantially higher than the University of Minnesota's pattern of increases for the past several years. This increase in expenditures is a promising indicator that our faculty and professional research staff are competing well for externally funded research support. Expenditures using federal funds increased by 10.5 percent (total amount \$247 million); state and local government sponsored expenditures increased by 6.6 percent (total amount \$28 million); sponsored expenditures from the private sector increased by 9.7 percent (total amount \$68 million).

The Medical School continues to receive the largest fraction of external research funding at the University with FY 98 sponsored research expenditures of \$109 million (an increase of 4.4 percent). It is followed by the Institute of Technology at \$84 million (an increase of 28.3 percent), the School of Public Health at \$37 million (up 4.7 percent), the College of Agriculture, Food and Environmental Sciences at \$14.5 million (up 6.4 percent), the College of Education and Human Development at \$12.5 million (up 5.9 percent) and the College of Biological Sciences at \$12.4 million (up 13.3 percent).

Fiscal year 1998 was also very successful for technology transfer at the University. Forty-one patents were granted during this time, and 78 technology transfer agreements

were completed. Another measure of success is that eight start-up companies were established as an outcome of our faculty efforts in technology transfer. Commercialization of university technologies supports the educational and research missions of the University of Minnesota and is a key component of our service mission. Efforts to move university discoveries and technology from the laboratory to the marketplace address the need to make those technologies available to benefit the public. For these reasons, President Yudof has emphasized the need to increase the

Chart 4
University of Minnesota
Trend in Sponsored Expenditures
Fiscal Years 1989-1998



from: *Levels and Trends in Sponsored Programs, Fiscal Year 1998*

effectiveness of the technology transfer activities and we are in the process of implementing a plan for significantly enhancing technology transfer.

The level and trend in sponsored activity of our faculty continues to move upward, and the scholarly work of our faculty continues to be excellent. As the competition intensifies for the best researchers and scholars and the funding to support their endeavors, the University is well positioned to continue as a world-class research, learning, and outreach institution.

Recent Publications by University Authors

Arts, Humanities, Social & Behavioral Sciences

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Please send your new citations to Tove Jespersen, tove@ortta.umn.edu.

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More Information

To generate copies of NIH and NSF application forms, please go to,

EGMS at <http://nirvana.ortta.umn.edu>, or to

NIH at <http://www.nih.gov/grants/forms.htm>, or to

NSF at <http://www.nsf.gov/pubsys/index.htm>

(For help, call the EMGS Help Line at 612.618.8747)

For funding searches

please contact the

Office of the Vice President for Research

612.625.7585; facgrant@gold.tc.umn.edu,

<http://www.research.umn.edu/research.html>.

■ National Institutes of Health

National Library of Medicine

Internet Connection for Health Institutions

RFA-LM-99-001

The National Institutes of Health, National Library of Medicine is accepting applications to expand Internet connections at health institutions. \$600,000 is available for 10 to 16 awards consisting of \$30,000 for an individual institution and \$50,000 for a group of institutions. U.S. public and private nonprofit organizations are eligible to apply.

An optional letter of intent is requested by **June 14, 1999**. The application deadline is **July 12, 1999**. Go to <http://www.nlm.nih.gov/ep/connect.html>.

■ Office of Naval Research

Young Investigator Program

The Office of Naval Research (ONR) announces its FY00 Young Investigator Program to identify and support academic scientists and engineers who have recently received Ph.D. or equivalent degrees and who show exceptional promise for doing creative research. The objective is to attract faculty to ONR's research program, to support faculty research, and to encourage teaching and research careers. A detailed description of ONR's research interests is in the Science and Technology section of ONR's home page, <http://www.onr.navy.mil/>.

ONR will make at least 18 awards of \$100,000 per year for three years.

The application deadline is **October 1, 1999**. For further information go to http://www.onr.navy.mil/sci_tech/special/yip/default.htm.

■ Department of Defense

Multidisciplinary Research Program of the University Research Initiative

The Department of Defense (DoD) announces the FY00 competition for the Multidisciplinary Research Program, one element of the University Research Initiative (URI). The URI is an initiative designed to enhance universities' capabilities to perform basic science and engineering research and related education in science and engineering areas critical to national defense.

The Multidisciplinary Research Program supports university teams whose research efforts intersect more than one traditional science and engineering discipline. Awards will address thirteen specific research topics in information technology and other DoD strategically important research areas. Nineteen awards will be made for the thirteen topics for a basic period of three years, with a possible additional two years, ranging from \$.5 million to \$1 million per year.

White papers are sought from prospective proposers.

Based on the evaluation of these papers, selected proposals will be invited. White papers are due **June 24, 1999**. Go to http://www.onr.navy.mil/sci_tech/special/onrpgadh.htm.

■ Centers for Disease Control

National Poison Prevention and Control Program

The purpose of the program is to support an integrated system of poison prevention and control services including: coordination of all poison control centers (PCCs) through development, implementation, and evaluation of standardized public education, development of a plan to improve national toxicosurveillance, and development of a single, nationwide toll-free telephone number, and related public service media campaign.

Approximately \$1.05 million is available to fund one award, for a 12-month budget period within a project period of up to three years, with continuation. Eligible applicants include universities, colleges, research institutions, hospitals, other public and private nonprofit organizations, state and local governments or their bona fide agents, and federally recognized Indian tribal governments, Indian tribes, or Indian tribal organizations.

Proposals are due on or before **July 7, 1999**. Go to <http://www.cdc.gov> for this and other program announcements, or call 1.888.472.6874. You will be asked to leave your name and address and will be instructed to identify the program announcement number: 99113.

■ National Science Foundation In Brief

The NSF Bulletin for May can be found at <http://www.nsf.gov/cgi-bin/getpub?ebu9905>.

Informal Science Education

Proposals for informal science education projects that provide rich and stimulating opportunities for learning science, mathematics, engineering and technology, including projects in museums, libraries, and community centers.

NSF encourages: 1) projects where informal science education institutions establish or have in place long-term, formal agreements to serve as resources with schools; 2) projects that link with major and national and international science research efforts to inform the public about science; 3) coordinated, wide-reaching efforts that identify and exploit key elements of mathematics that are appropriate to informal education; and 4) innovative and creative projects that develop new approaches or delve into new science content areas.

Eligible applicants include a wide variety of organizations, including science and natural history museums, science-technology centers, aquaria, nature centers, botanical gardens, arboreta, zoological parks, libraries, and community and youth centers.

A preliminary proposal is required by **August 1, 1999**; full proposals are due **November 15, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf9992>.

Technology for a Sustainable Environment

The National Science Foundation and the Environmental Protection Agency invite proposals to advance development and use of innovative technologies and approaches directed at avoiding or minimizing pollutants at the source. Research areas include chemistry for pollution avoidance or prevention; engineering for pollution avoidance and prevention; chemical processes and reaction engineering; simulations, modeling, sensors, and feedback techniques for pollution avoidance and prevention; and industrial ecology.

About \$5 million is available to make 20 awards.

The application deadline is **July 26, 1999**. Contact Robert Wellek, NSF, fax 703.306.0319, rwellek@nsf.gov; or Robert Menzer, EPA, 202.564.8749, menzer.robert@epamail.epa.gov. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99108>.

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Exploratory Research on Biosystems at the Nanoscale

High risk/high return, exploratory research feasibility studies on biosystems at the nanoscale.

Funding is anticipated at \$3 million for 20 awards, averaging up to \$100,000 (\$200,000 for essential collaborations).

The application deadline is **August 16, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99109>.

Faculty Early Career Development (CAREER) Program

Foundation-wide activity that supports junior faculty within the context of their overall career development. The program combines in a single program the support of research and education.

Approximately \$80 million will be available to fund approximately 350 awards. Awards will range from \$200,000 to \$500,000 in total for four or five years. There is no limit on the number of proposals that may be submitted by an organization; however, only one proposal may be submitted by each principal investigator.

The application deadline is **July 22, 1999**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99110>.

Materials Research Science and Engineering Centers

Supporting interdisciplinary university-based group research and educational activities in the area of materials science and engineering, condensed matter physics, solid state and materials chemistry, and related areas of science and engineering.

Approximately \$22 million is available to fund approximately 10-15 awards.

A preproposal is due **September 10, 1999**. Full proposals are due **January 21, 2000**. Go to <http://www.nsf.gov/cgi-bin/getpub?nsf99125>.

■ National Endowment for the Arts Arts Projects on Millennium Trails

The National Endowment for the Arts is requesting proposals leading to the award of a cooperative agreement to conduct a project that will support 52 high quality, community-centered arts projects along the Millennium Legacy Trails. The U.S. Department of Transportation will designate these trails in each of the 50 states, Puerto Rico and the District of Columbia.

Responsibilities of the recipient will include: preparation and distribution of application guidelines; overseeing the review and selection process; providing guidance and structure to each project; as well as monitoring all stages of each project. Eligible applicants are colleges or universities, or units of state and local government, and must have previous experience in working with relevant organizations and agencies, such as national cultural service organizations, national trails organizations, state/local arts agencies, state departments of transportation, and state and local trails organizations.

Funding is \$520,000 that must be matched on a one-to-one basis.

Proposals are due **July 12, 1999**. Requests for the solicitation should be addressed to the National Endowment for the Arts, Grants and Contracts Office, Room 618, 1100 Pennsylvania Avenue NW, Washington, DC 20506. For other information contact William Hummel, same address, 202.682.5482.

■ Women's Sports Foundation Leadership Development Grant

The Women's Sports Foundation's Leadership Development Grant funds efforts to train women as sports leaders, coaches, officials, and administrators of girls' and women's sports. Applications should be specific about training or certifications being conducted and the direct benefits of the proposal to promote women in sport leadership positions.

Eligible applicants include any sports governing association, school, sports club, or organization that offers sports leadership opportunities to girls and women. Funds cannot be used for tuition. Up to six grants will be awarded ranging from \$500 to \$2,000.

The next deadline is **October 15, 1999**. Contact Women's Sports Foundation, Leadership Development Grant, Eisenhower Park, East Meadow, NY 11554; 800.227.3988, <http://www.lifetimetv.com/sports/index.html>.

■ United States Information Agency College and University Affiliations Program

Accredited, post-secondary educational institutions may apply to pursue institutional or departmental objectives in international partnerships. Eligible fields are education or educational administration; the social, political economic, or environmental sciences; law; business; public administration; or communications.

Partner institutions may pursue specific goals through exchanges of teachers, administrators, or, in limited circumstances, students for any appropriate combination of teaching, consultation, research, and outreach, for periods ranging from one week (for planning visits) to an academic year. Award periods are from 36 to 40 months, the maximum award is \$150,000. Cost sharing is required.

The application deadline is **November 15, 1999**. For further information contact the Office of Academic Programs; Advising, Teaching and Specialized Programs Division; College and University Affiliations Program (CUAP), (E/ASU); U.S. Information Agency Room 349; 301 4th Street SW; Washington, DC 20547; 202.619.5289, fax 202.401.1433, affiliat@usia.gov. The entire solicitation package may be downloaded from <http://e.usia.gov/education/rfps>.

■ Paul Robeson Fund for Independent Media

The Paul Robeson Fund for Independent Media supports media activism and grassroots organizing. Grants focus on "media artists whose work reflects and comments on social and economic problems while promoting positive solutions and alternatives." Support goes to radio programs in all production stages, and film or video projects in the pre-production or distribution stages.

Grants typically range from \$3,000 to \$8,000. Eligible applicants include local, state, national, and international organizations, and individual media producers working in radio, film, and video production and distribution. Applying organizations must have 501(c)(3) tax-exempt status.

Applications are accepted only **between September 1 and December 1**. Contact the Paul Robeson Fund for Independent Media, Funding Exchange, 666 Broadway Suite 500, New York, NY 10012; <http://www.fex.org/robeson>.

Faculty Research, Training, and Service Awards

This section contains statistics on proposals and awards recently processed by SPA. In addition, we have selected awards received by faculty during preceding months. Faculty who have received awards they would like mentioned in a future *Research Review* may send the pertinent data, as exemplified below, to Tove Jespersen at SPA, tove@ortta.umn.edu.

Proposal and Award Summary

	Number	Amount
Proposals Submitted		
April 1999	320	\$ 83,193,941
Awards Processed		
April 1999	275	32,752,989
Proposals Submitted		
July 1998 - April 1999	3,313	715,248,092
Awards Processed		
July 1998 - April 1999	2,659	309,427,638
Proposals Submitted		
July 1997 - April 1998	3,298	683,025,571
Awards Processed		
July 1997 - April 1998	2,542	316,847,493

Engineering Novel Monomer Syntheses for Polyhydroxyalkanoate Copolymers

David H. Sherman, Microbiology/Biological Process Technology
Procter & Gamble Company
\$65,951 - 2/1/99-01/31/00

Cognitive Deficits as Indicators of Genetic Liability in Schizophrenia

Scott R. Sponheim, Psychiatry/Psychology
Veterans Affairs
\$638,100 - 10/1/99-9/30/04

Molecular Regulation of Hypertrophy in Aging Muscle

Dawn A. Lowe, Biochemistry, Medical School
David D. Thomas, Biochemistry, Medical School
NIH, NIA
\$40,036 - 3/20/99-3/19/00

Myosin Family of Dictyostelium

Margaret Titus, Cell Biology and Neuroanatomy
National Science Foundation
\$160,000 - 11/1/98-10/31/00

Intracellular Infection by Invasive Group A Streptococci

Paul P. Cleary, Microbiology
NIH, NIAID
\$131,516 - 12/31/98-11/30/99

Role of Oxygen in Production of Toxic Shock Syndrome Toxin-1

Patrick M. Schlievert, Microbiology
Procter and Gamble Company
\$28,046 - 10/1/98-3/31/99

Development of a Topoisomerase III Dependent Detection

Hiroshi Hiasa, Pharmacology
Stratagene
\$15,000 - 1/1/99-12/31/99

Mechanism of Hydroxyurea in the Suppression of HIV Replication

Timothy W. Schacker, Medicine
Ashley T. Haase, Microbiology
Bristol-Myers Squibb Pharmaceutical Research Institute
\$113,608 - 11/30/98-11/29/00

Prosthetic Mitral Valve Implantation in the Sheep Model

Richard W. Bianco, Surgery
Sulzer Carbomedics, Inc
\$96,723 - 12/15/98-12/14/99

Glucowatch Monitor Function in Diabetic Subjects

Elizabeth R. Seaquist, Medicine
David M. Brown, Pediatrics
The College Board
\$44,000 - 12/8/98-12/7/99

Cell Cycle Regulation in Cerebellar Development

Josee Huard, Neurology
Margaret E. Ross, Neurology
NIH, NINDS
\$36,700 - 3/29/99-3/28/01

Assessing True Level of Uncertainty and the Value of Further Gene Therapy for Metabolic Disorders

Chester B. Whitley, Pediatrics
National Science Foundation
\$788,609 - 1/1/99-12/31/99

Fetal Alcohol Syndrome (FAS) Diagnostic Clinic

Pi-Nian Chang, Pediatrics
Martha Smith, Pediatrics
St. of Minn. Department of Health
\$235,615 - 12/10/98-6/30/99

Real-Time Quantitative Detection System

Chester B. Whitley, Pediatrics
NIH, NCRR
\$101,440 - 4/15/99-4/14/00

Gene Therapy Using T Cells Engineered to Express Cytosine

Paul J. Orchard, Pediatrics
National Marrow Donor Program
\$65,385 - 2/1/99-2/1/00

Long-Term Cancer Survivors: Research Initiatives

Joseph P. Neglia, Pediatrics
Oregon Health Sciences University
\$41,836 - 4/22/99-6/30/99

Smoking Cessation Among Childhood Cancer Survivors

Leslie L. Robison, Pediatrics
Ann Mertens, Pediatrics
Dana-Farber Cancer Institute
\$33,639 - 4/1/98-7/31/99

Youth and AIDS Projects HIV Counseling and Testing Services

Gary Remafedi, Pediatrics
St. of Minn. Department of Health
\$10,000 - 3/2/99-12/31/00

Evaluation of the Analgesic Properties of PolyMem

Donald A. Simone, Psychiatry
Lois J. Kehl, Diagnostic Surgical Science
Ferris Manufacturing Corporation
\$41,167 - 11/1/98-10/31/99

3-Dimensional Quantative Motion Analysis of Cardiac Leads Implanted in Patients

Xiaoping Hu, Radiology
Cardiac Pacemakers Inc.
\$60,589 - 11/1/98-10/31/99

Violence Risk and Protective Factors for Vulnerable Youth

Michael D. Resnick, Health Management and Policy
Iris Borowsky, Pediatrics
Linda Bearinger, Nursing
Centers for Disease Control
\$185,817 - 9/30/98-9/29/99

Raloxifene Use for the Heart (RUTH) Study
 Kristine Ensrud, Medicine
 Eli Lilly and Company
 \$1,050,000 - 9/25/98-9/24/05

Treatment of Mild Hypertension Study/Analysis
 Gregory Grandits, Public Health
 Midwest Medical Research Foundation
 \$54,894 - 4/1/98-3/31/00

Special Report on Firearms
 Susan G. Gerberich, Environmental and Occupational Health
 Allina Foundation
 \$6,464 - 3/1/99-12/31/99

Enforcement of Tobacco-Age-of-Sale Laws II
 Jean L. Forster, Epidemiology
 Wake Forest University
 \$40,082 - 12/31/98-11/30/99

The Effects of Clinic Payment and Structure on Costs
 John Kralewski, Health Services Research and Policy
 Agency for Health Care Policy and Research
 \$164,847 - 4/1/99-3/31/00

**Preferences, Choices, and Managed Care Markets:
 Determinants of Consumer Trust and Satisfaction**
 Douglas Wholey, Health Services Research and Policy
 Robert Wood Johnson Foundation
 \$88,315 - 2/1/99-1/31/01

Metabolism of Carcinogenic Tobacco: Specific Nitrosamines
 Stephen S. Hecht, Cancer Center
 NIH, NCI
 \$258,644 - 4/1/99-2/1/00

Reading Program
 Amos S. Deinard, Community University Health Care Center
 Kathie Krieger Cerra, Community University Health Care Center
 Reading is Fundamental, Inc.
 \$2,229 - 8/13/98-5/31/99

Canine Epilepsy: Inheritance, Genes, and Linkage Test
 James R. Mickelson, Veterinary Pathobiology
 Ned E. Patterson, Small Animal Clinical Science
 P.J. Armstrong, Veterinary Pathobiology
 Canine Health Foundation (American Kennel Club)
 \$28,750 - 3/23/99-3/22/00

Interactive High-Definition Visualization and Latency
 Paul R. Woodward, Astronomy
 National Science Foundation
 \$400,000 - 10/1/97-9/30/98

Optimization of a Bioartificial Liver
 Wei-Shou Hu, Chemical Engineering & Materials Science
 Algenix, Inc.
 \$33,000 - 9/30/98-3/31/99

Array Technology and its Use in Diagnosis
 George Barany, Chemistry
 Cornell University Medical College
 \$352,800 - 10/1/98-9/30/01

Research on Sinuous Channels: State of the Art
 Gary N. Parker, Civil Engineering
 U.S. Department of Agriculture
 \$15,000 - 1/1/99-9/30/99

Algorithms for Vehicle Classification
 N. Papanikolopoulos, Computer Science and Engineering
 St. of Minn. Department of Transportation
 \$60,000 - 1/15/99-4/30/00

Variable Temperature Cryostat for Cathodoluminescence
 Philip I. Cohen, Electrical and Computer Engineering
 USDOD, Navy
 \$51,000 - 3/15/99-3/14/00

**A Feasibility Study: Integration of Mixed Transmission
 Line (MTL) Types using Micromaching Techniques**
 Rhonda Franklin Drayton, Electrical and Computer Engineering
 National Science Foundation
 \$17,368 - 8/1/98-2/1/00

Digital Aggregate Resources Map and Inventory Report
 David L. Southwick, Geology and Geophysics
 St. of Minn. Department of Natural Resources
 \$40,000 - 5/15/98-8/15/99

Theoretical Study ULF Waves in the Magnetotail
 Robert Lysak, Physics and Astronomy
 Yan Song, Physics and Astronomy
 National Aeronautics and Space Administration
 \$94,277 - 5/1/99-4/30/00

Single Proton Exchange Kinetics in Proteins
 Clare K. Woodward, Biochemistry, CBS
 NIH, NIGMS
 \$201,364 - 12/1/98-11/30/99

**Determinants of Male Dominance and Reproductive
 Success**
 Anne E. Pusey, Ecology, Evolution and Behavior
 Craig Packer, Ecology, Evolution and Behavior
 National Science Foundation
 \$100,000 - 2/1/99-2/1/00

**An Examination of Genetic Patterns and Phylogeny of
 Antarctic Pack Ice Seals**
 Donald B. Siniff, Ecology, Evolution and Behavior
 National Science Foundation
 \$97,221 - 3/1/99-2/29/00

**The Impact of a Recurrent Coastal Plume on Phosphorus
 Dynamics in Lake Michigan**
 James Cotner, Ecology, Evolution and Behavior
 University of Michigan
 \$76,231 - 7/1/98-6/30/99

Humanities Organization Network
 Karen L. Davis, Bell Museum of Natural History
 Minnesota Humanities Commission
 \$4,000 - 10/8/98-9/1/99

Financing Alternatives in Transportation
 Thomas Stinson, Applied Economics
 David R. Anderson, Center for Transportation Studies
 St. of Minn. Department of Transportation
 \$195,127 - 2/4/99-5/31/01

Perennial Legumes for Sustainable Pasture Systems
 Craig C. Sheaffer, Agronomy and Plant Genetics
 Neal Martin, Agronomy and Plant Genetics
 North Central Region Sustainable
 Agriculture Research and Education (SARE) Program
 \$99,800 - 8/1/98-7/31/00

Integrated Non-Chemical Weed Management
 Donald L. Wyse, Agronomy and Plant Genetics
 Agricultural Utilization Research Institute
 \$30,000 - 3/1/98-2/2/00

Soybean Genetic Diversity to Increase Yield
 James H. Orf, Agronomy and Plant Genetics
 U.S. Department of Agriculture
 \$17,488 - 4/12/99-9/30/00

Research on the Causal Agent of Bronze Leaf Disease

Robert Blanchette, Plant Pathology
 North Central Forest Experiment Station
 \$35,021 - 4/1/99-12/31/00

Assessment of Deterioration in the Historic Huts of the Ross Sea Region of Antarctica

Robert Blanchette, Plant Pathology
 National Science Foundation
 \$24,185 - 1/15/99-3/31/00

Sediment Production Estimates: Wild Rice River Watersheds

James C. Bell, Soil, Water, and Climate
 Edward A. Nater, Soil, Water, and Climate
 USDI, Geological Survey
 \$15,692 - 5/11/98-9/30/98

Canada Goose Population Management and Ecology

James A. Cooper, Fisheries and Wildlife
 City of Roseville
 \$12,000 - 3/15/96-3/15/00
 Ramsey County
 \$8,854 - 3/15/95-3/15/99

The First Generations of True Lignin-Based Plastics

Simo Sarkanen, Wood and Paper Science
 U.S. Department of Agriculture
 \$123,396 - 12/15/98-12/31/00

Review of Productivity, Costs, and Impacts Associated with Use of Smallscale Timber Harvesting Equipment

Charles R. Blinn, Forest Resources
 USDA, Forest Service
 \$14,486 - 9/1/98-12/30/99

Water Diversion Options on Forest Roads and Skid Trails

Charles R. Blinn, Forest Resources
 USDA, Forest Service
 \$10,491 - 8/12/98-12/30/99

Creating a Model for Mainstream Elementary Teachers

Constance Walker, Curriculum and Instruction
 Diane Tedick, Curriculum and Instruction
 Minneapolis Public Schools
 \$94,600 - 2/1/98-6/30/99

Exemplary Reading Grant Evaluation

Karen S. Louis, Educational Policy and Administration
 Debra Ingram, Applied Research/Educational Improvement
 Minneapolis Public Schools
 \$30,000 - 9/1/98-6/30/99

Playground Games: Their Social Context in Elementary and Junior Schools

Anthony D. Pellegrini, Educational Psychology
 University of London/Spencer Fdn. Prime
 \$80,846 - 4/20/99-9/30/00

Providing Options for Work-Based Learning

Roland Peterson, Work, Community and Family Education
 Minnesota FFA Organization
 \$67,085 - 7/1/98-6/30/99

Evaluation of Lifework Learning Lab School Project

James M. Brown, Work, Community and Family Education
 Gary W. Leske, Work, Community and Family Education
 Bemidji State University
 \$30,000 - 9/15/98-6/30/99

A Rapid Method for Analysis for Estrogen Metabolites

Mindy S. Kurzer, Food Science and Nutrition, CHE
 NIH, NCI
 \$72,192 - 4/1/99-3/31/00

Citysongs: A Youth Development Project in Music, Guest Artists

Helen Q. Kivnick, Social Work
 Metropolitan Regional Arts Council
 \$3,000 - 8/3/98-1/29/99

Role of Microorganisms used in Food Products

Francis F. Busta, Food Science and Nutrition, COAFES
 Linda J. Brady, Food Science and Nutrition, CHE
 University of Nebraska
 \$40,000 - 10/1/98-5/31/99

Survey About Basic Sliding Fee Child Care Program

Rossana Armson, Center for Urban and Regional Affairs
 Ramsey County
 \$9,992 - 8/14/98-11/30/98

Simulation Game on Transportation and Urban Growth

Gary Barnes, Transportation Studies
 St. of Minn. Department of Transportation
 \$25,000 - 7/20/98-6/30/99

Chemistry and Physics of Taconite Agglomeration

Ronald L. Wiegel, Natural Resources Research Institute, Duluth
 St. of Minn. Department of Natural Resources
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