

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 5, 1982

NOTE
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NEWS PEOPLE: For further information
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U OF M OFFERS
CAREER GROWTH FELLOWSHIPS

(FOR IMMEDIATE RELEASE)

Applications are being accepted for 10 career growth fellowships in early education and child development at the University of Minnesota.

The fellowships offer a \$3,000 stipend, travel allowance and tuition for fall or spring quarter of the 1982-83 academic year. The fellowships, funded by the Bush Foundation, are designed for persons who want to expand their knowledge of early education and child development.

Applicants are being sought from the fields of business, elementary education, health education, law, religion, nursing, the social sciences and school administration. Applicants from early education and child development must have completed their formal training 10 or more years ago.

To apply, contact the Center for Early Education and Development, 226 Child Development, 51 E. River Road, University of Minnesota, Minneapolis, MN 55455, or (612) 376-3229.

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(AO,14;B1,11;CO,14;DO,14;E14)

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JANUARY 7, 1982

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DISCOVERY OF NATURAL ALGICIDE
COULD LEAD TO CLEANER LAKES

(FOR IMMEDIATE RELEASE)

A group of Minnesota scientists has discovered a chemical produced by a species of algae that kills other algae, according to an article in the Jan. 22 issue of Science magazine.

The discovery offers the potential for ridding lakes of the overabundance of algae that can rob water of dissolved oxygen vital to other aquatic life and can ruin recreation with its odor and unsightly scum. Finding a way to produce the chemical economically and testing its effectiveness and environmental safety will take an estimated five to seven years.

The freshwater blue-green algae *Scytonema hofmanni* produces a chemical that kills other green and blue-green algae. "We've isolated the compound, characterized its chemical structure and looked at its effectiveness under laboratory conditions," said Florence Gleason, who directed the research at the University of Minnesota Gray Freshwater Biological Institute.

Gleason and her colleagues are now trying to find ways to produce large amounts of the chemical economically, either by chemical synthesis or by finding an organism that produces more of the chemical.

"The method we're currently using to extract the chemical from the alga is quite expensive," Gleason said. "People have asked me already if we could put the chemical in their lakes. Right now, we can't afford to treat even a small pond."

Gleason likened the process of developing the algicide to penicillin research. "Penicillin was discovered before World War II, but it wasn't until a great effort was made during the war years that a way was found to produce large quantities of the antibiotic. The first few milligrams of penicillin were too expensive to use on

(MORE)

anybody. It's the same sort of idea here. What we've found has the potential to develop into a practical algicide, but first we have to find a way to produce it cheaply and do all the tests to make sure it's effective and environmentally sound."

Gleason estimates it may take three to four years to find a practical production method, and another two to three years for testing the algicide in lakes.

"It may turn out to be ineffective in lakes," she said. "All our tests have been in the lab, and there is a possibility that the chemical might be easily broken down by bacteria in lakes."

Like penicillin, the natural algicide was discovered when its ability to clear organisms from a Petri plate was observed in the laboratory. The discovery of the algicide was made in the summer of 1978 by Charles Mason, who was working with Gleason at the time and is currently on the faculty of Gustavus Adolphus College in St. Peter, Minn.

After setting up a great number of Petri plates with different combinations of algae, Mason found that the *Scytonema hofmanni* killed every alga grown near it.

This particular alga grows slowly, and its natural algicide might help it compete with faster-growing species, Gleason said. "Out there in the algae world, if you can't grow very fast you need some mechanism for keeping your space clear or other species will grow right over you," she said.

This observation could help solve the puzzle of algal succession. "One species of algae is usually predominant in the spring, then gives way to a succession of dominant species occurring throughout the summer," Gleason said. "Nobody knows quite why this succession occurs. There is no rational way to predict it, except by what happened in previous years. There are lots of theories on why one particular alga will grow in a lake and another won't. Our discovery fits with the theory that some algae produce chemicals that kill other species of algae."

The discovery of the chemical structure of the natural algicide will give scientists a new way of studying freshwater algae. "It contains chlorine, which is

(MORE)

associated with salt water organisms," Gleason said. "Nobody ever thought to look at freshwater species to see if they too produce chlorine compounds. Scientists get into a certain basic way of thinking, and the thinking for many years has been that these types of compounds are produced only by marine organisms. This is one of the first papers to show that freshwater organisms can also do this."

Besides Gleason and Mason, the authors of the paper are: Kent Edwards, a chemist from the H.B. Fuller chemical company in St. Paul; and Joseph Pignatello, Robert Carlson and John Wood of the Gray Freshwater Biological Institute.

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EDITOR'S NOTE: Florence Gleason's number at the Gray Freshwater Biological Institute is (612) 471-7709.

(AO,4,18;B1,2,9,18;CO,4,18;DO,4,4b,18;
EO,4,4b,18;I4)

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GRANT MAY TAKE EDGE
OFF INDUSTRY'S LURE

(FOR IMMEDIATE RELEASE)

In an effort to neutralize the lure of high salaries private industry offers scientists and engineers, the Atlantic Richfield Foundation has given the University of Minnesota \$125,000 to support selected graduate students and junior faculty in geology and geophysics.

The fellowships -- being provided to departments at 30 universities throughout the country -- are intended to encourage interest in teaching careers in science and engineering by providing support for those preparing for such careers.

The four-year program includes \$5 million in fellowships in chemical engineering, chemistry, metallurgy, petroleum engineering, mechanical engineering, electrical engineering, computer science and botany, as well as geology and geophysics.

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(AO,4;B1,12;CO,4,4d,4e,4f;DO,4,4c,4e,4f)

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JANUARY 8, 1982

MTR
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'U' BUDGET CUTS FORCE
LAYOFFS, TUITION HIKE

(FOR IMMEDIATE RELEASE)

At least 400 University of Minnesota employees will lose their jobs and tuition may go up 13 percent by summer because of a projected loss of at least \$20 million in the university's 1981-83 budget.

However, no final decision on the total magnitude of the cuts has been made yet by the legislature, which is grappling with the state's fiscal crisis, and if the total loss is larger both the number of jobs lost and the size of tuition increase could grow larger, the Board of Regents was told today (Friday).

President C. Peter Magrath outlined for the board the cuts that will be made to accommodate a cut of between \$20.4 million and \$22.9 million from the biennial appropriation the university receives from the state. "It is clear that we will lose no less than \$20 million," Magrath said.

Administrative support units will be reduced by \$5 million to \$7 million, special projects funded by the state trimmed by \$2.5 million and Twin Cities academic programs cut \$3.5 million, he said. Between \$1 million and \$1.5 million will be cut from the budgets of the four coordinate campuses. A proposed 13 percent tuition increase beginning summer of 1982 will raise about \$8.4 million.

The cuts in administrative and support units will go into effect immediately, Magrath said, and will mean the loss of at least 200 jobs. "These cuts will mean a reduction in student services, slower responses, longer lines," Magrath said.

Other support cuts include:

--Layoff of at least 20 administrators.

--Increases in service charges for such things as concerts and lectures, the University Gallery, computer services to outside users, and certain student services and activities fees.

--A 7.5 percent reduction in campus bus services.

--Layoff of at least 120 custodial workers. Offices will be cleaned twice rather than five times a week, and window washing frequency will be cut 40 percent.

--Budgets for repair and maintenance of buildings reduced 6.8 percent.

--The police department budget cut 8.5 percent, the University Relations budget by 15 percent, and the personnel department budget by 8 percent. The personnel department will eliminate 90 percent of employee training.

(MORE)

--Phasing out the Measurement Services Center and Student Life Studies departments, and combining the staffs of the Educational Development Center and the University College.

--Reduction in funds for student housing and student activities; student employment, student aid and programs for handicapped and minority students will be protected.

Out of the \$3.5 million in cuts proposed for the Twin Cities campus academic programs, \$1 million will have to come out of this year's budget, Magrath said. To make that immediate cut, several steps will be taken:

--No faculty or civil service jobs will be filled unless it can be demonstrated that serious academic consequences for many students would result.

--Travel will be drastically reduced.

--A freeze will be placed on publication of all magazines and newsletters during spring quarter.

--Some \$775,000 in funds for indirect cost recovery and equipment replacement, normally distributed to academic units over the course of a year, will be withheld.

Specific plans on cuts in "state special" appropriations, the Twin Cities campus academic program and the coordinate campus budgets will be presented to the regents in February. At that meeting, the board will be asked to approve the tuition increase as well.

"If at all possible, we should not increase tuition during the current school year," Magrath said. Students make their financial plans at the beginning of a school year and are not able to change them drastically midstream, he said.

"If the budget cuts go deeper than expected, then we are obviously going to have to re-examine additional reductions in university budgets and additional tuition," he said.

Rose Johnson, a student representative to the board, said the projected tuition increase would have serious consequences. "You are talking about students' very livelihood--how they are going to buy food, pay rent, especially when financial aid has been decreased so," she said.

Minneapolis regent David Lebedoff said that while the pain of tuition increases is readily apparent, "the cuts in the academic programs are far more harmful in the long run."

Kenneth Keller, vice president for academic affairs, said that many of the administrative and support cuts the university has been forced to make seem invisible, but affect the quality of an education a student gets. Position cuts from the library system will affect students, as will the elimination of the Measurement Services Center, which evaluates courses, and cuts in the budget of the media resources department, which prepares educational filmstrips and other classroom needs.

"The most tragic thing about what we're doing is the people cuts," he said.

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JANUARY 8, 1982

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(EMBARGOED FOR RELEASE JAN. 11, 1982)

STUDY SEEKS ALTERNATIVES
TO SURGERY IN EAR DISEASE

Four hundred Twin Cities children suffering from chronic otitis media -- persistent middle ear inflammation and fluid build-up -- will participate in a University of Minnesota/St. Louis Park Medical center study to find ways to treat the disease without surgery.

Middle ear problems are nearly as prevalent as the common cold; about three-fourths of all children experience at least one bout of middle ear infection by the time they're five.

"The economic costs of this disease are great," said Scott Giebink, associate professor of pediatrics at the University Medical School and the study's principal investigator. "They include frequent physician visits for recurring acute otitis media, requirements for special education facilities during early school years and the cost of surgery to evacuate fluids during the early childhood and to reconstruct damaged middle ear tissue later in life."

Most youngsters with fluid in the middle ear will improve within several weeks of the start of treatment and suffer no detectable hearing loss. However, children with recurrent or prolonged ear fluid accumulation may not hear sounds that are helpful in language development because the fluids inhibit sound wave conduction in the middle ear. In some children, minor surgery may be necessary to remove the fluid and to place tiny plastic tubes in the eardrum to ease draining.

"We will determine whether one of the following treatments -- prednisone, ibuprofen or a combination of antibiotics -- is more effective than no treatment in clearing middle ear fluid," Giebink said. "It is anticipated that one or more of the

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medical intervention strategies will improve the functional outcome of these patients while reducing the economic costs compared to surgical management."

The children, ages 1 to 5, will be enrolled through the pediatric clinic at the St. Louis Park Medical Center under the direction of Paul R. Batalden, head of the center's pediatric department and the study's co-principal investigator. Half the children will be treated this year and the remainder in 1983.

Previous studies show that chronic otitis media affects 4 to 7 percent of infants and pre-school children. Children tend to develop middle ear infections more often than adults, probably because a child's eustachian tube is straighter and shorter than an adult's. This provides easier access for infection-causing bacteria. In addition, young children have had less time to develop immunity against various infection-causing virus and bacteria.

The medical intervention program is made possible by a \$143,000 grant from The Robert Wood Johnson Foundation with supplemental funding from Burroughs-Wellcome Inc. and The Upjohn Co., manufacturers of the drugs to be used in the study.

The university launched an intensive study of otitis media in 1974, bringing together experts from the departments of pediatrics, otolaryngology, biometry and anatomy. The Minnesota Collaborative Otitis Media Study has resulted in a number of important discoveries.

University scientists were among the first to document that fluid build-up in ears -- once thought to cause only minor, temporary problems -- can lead to permanent nerve damage in the inner ear. When fluid ears are left untreated for long periods, tissue damage and bone destruction can occur. A team led by Dr. Michael Paparella, chairman of the department of otolaryngology, developed the concept of viewing otitis media on a continuum. This has helped clinicians to identify various stages of the disease and plan treatment.

In addition to Giebink and Batalden, the research team includes audiologist John McDermott, otolaryngologist Timothy Jung, biometrician Chap T. Le, economist Brian Dowd and Patricia Calamug-Nguyen, a social scientist.

The otitis media study is one of 23 research projects announced this week under The Robert Wood Johnson Foundation's medical practice research and development program. The foundation is the country's largest private support of activities to improve health care.

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JANUARY 8, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
Jan. 13-19, 1982

- Wed., Jan. 13--North Star Gallery: New watercolors by Herb Hultgren. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Jan. 29. Free.
- Wed., Jan. 13--The Gallery: "Doorways and Windows," paintings by Barbara Claussen. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through Jan. 29. Free.
- Wed., Jan. 13--Coffman Union Gallery: Minneapolis College of Art and Design faculty show, Galleries 1 and 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through Jan. 27. Free.
- Wed., Jan. 13--University Gallery: "Young Minnesota Artists: A Juried Competition," through Feb. 7. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., Jan. 13--Whole Coffeehouse: Larry Long, folk. Coffman Union. Noon. Free.
- Wed., Jan. 13--Films: "The Frozen Revolution" and "The Mexican-American Speaks: Heritage in Bronze." Theater-lecture hall, Coffman Union. 12:30 and 7 p.m. Free.
- Wed., Jan. 13--University Film Society: "City of Women" (Fellini, 1980). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Wed., Jan. 13--Third Century Poetry and Prose series: Kevin Fitz Patrick, followed by an open reading. Fireplace room, lower level, West Bank Union. 8 p.m. Free.
- Thurs., Jan. 14--University Film Society: "City of Women" (Fellini, 1980). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Fri., Jan. 15--Film: "Excalibur." Theater-lecture hall, Coffman Union. 1:30, 7 and 9:30 p.m. \$2.50, \$1.50 for students with U of M ID.
- Fri., Jan. 15--Bijou film: "Some Like It Hot" and Laurel and Hardy short. Program Hall, West Bank Union. 8 p.m. \$1.50, \$1 for students with paid fee statement.
- Sat., Jan. 16--Film: "Excalibur." Theater-lecture hall, Coffman Union. 7 and 9:30 p.m. \$2.50, \$1.50 for students with U of M ID.
- Sat., Jan. 16--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Sat., Jan. 16--Bijou film: "Some Like It Hot" and Laurel and Hardy short. Program Hall, West Bank Union. 8 p.m. \$1.50, \$1 for students with paid fee statement.

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Sun., Jan. 17--Goldstein Gallery: "A Stitch Here, A Stitch There: An International Sampling of Embroidery." 241 McNeal Hall. Opening reception: Jan. 17, 1-4 p.m. Regular hours: 8:30 a.m.-4:30 p.m. Mon.-Fri. Through Feb. 15. Free.

Sun., Jan. 17--Film: "Excalibur." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50, \$1.50 for students with U of M ID.

Sun., Jan. 17--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.

Mon., Jan. 18--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.

Tues., Jan. 19--Film: "White Heat." Theater-lecture hall, Coffman Union. Noon and 8 p.m. \$1.50, \$1 for students with U of M ID.

Tues., Jan. 19--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.

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(AO;B1;F2)

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JANUARY 11, 1982

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GOLDWATER LECTURE SET
FOR JAN. 19 AT U OF M

(FOR IMMEDIATE RELEASE)

Sen. Barry Goldwater's first major public address since his November hip surgery will be given next week as part of the University of Minnesota Hubert H. Humphrey Institute of Public Affairs's Carlson Lecture Series.

The Arizona Republican's speech, "The Conscience of a Conservative, 1982" will begin at noon Jan. 19 in Northrop Auditorium on the Minneapolis campus. Free tickets will be available at the auditorium beginning at 11 a.m.

Goldwater's talk is the first in the Humphrey Institute's Carlson Lectures, which were made possible by a \$1 million gift from Curt Carlson, founder of the Minneapolis-based Carlson Companies Inc. The lecture series was established to bring distinguished national and international leaders to the Humphrey Institute to speak on current topics of interest to the public.

Goldwater was the Republican candidate for president in 1964 and is currently chairman of the Senate Select Committee on Intelligence.

The outspoken senator gained national attention last year when he defended Sandra Day O'Connor's nomination to the U.S. Supreme Court and voiced strong disapproval of the Moral Majority's involvement in politics.

The 73-year-old senator grew up in Arizona and attended the University of Arizona in Tucson. He was a pilot in the United States Air Force during World War II and attained the rank of colonel.

After the war, Goldwater served as chief of staff of the Arizona National Guard and was a major general in the U.S. Air Force Reserves. In 1949 he was named Phoenix's "Man of the Year" and served on its city council until 1952.

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Goldwater was elected to the U.S. Senate in 1953. He served until 1965 when he ran for president. He was re-elected to the Senate in 1969. As a senator he has served on several committees, including Armed Services and Labor and Public Welfare.

Goldwater has been married to Margaret Johnson since 1934 and is the father of two sons and two daughters. He is an avid photographer and has written several books including photographic collections. He wrote "The Conscience of a Conservative" in 1960; "Why Not Victory?" in 1962; "Where I Stand" in 1964; and "The Conscience of the Majority" in 1970.

The Humphrey Institute was founded in 1977 to honor the late Sen. Hubert H. Humphrey and serves as a memorial to his distinguished career. Its faculty members are from several disciplines within the university and engage in public policy research. The institute trains both graduate students and mid-career professionals who want to be leaders.

Curt Carlson is a 1937 graduate of the University of Minnesota. He is a past president and chairman of the board of the University of Minnesota Foundation and serves as a trustee, senior vice president and member of the executive committee of that group.

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(AO, 3, 13; B1; CO, 3, 13; DO, 3, 13; F22)

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JANUARY 11, 1982

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U OF M RAPTOR CLINIC TO STUDY
EFFECT OF LEAD ON EAGLES

(FOR IMMEDIATE RELEASE)

Since last year four American bald eagles suffering from lead poisoning have been treated at the University of Minnesota's Raptor Rehabilitation Research Clinic. Two lived and two died.

Researchers wonder why.

A two-year study, funded by the Blandin Foundation of Grand Rapids, Minn., is seeking an answer to this and other questions related to levels of lead in America's most famous bird.

During the winter eagles, our national symbol for two hundred years, often feed on dead and dying waterfowl. These waterfowl are sometimes victims of hunters using lead gunshot. In some cases, hunters are unable to locate fallen birds in thick marshland. But the eagles, with their keen eyesight, can spot them easily.

"We're interested in learning whether this ingestion of lead makes the eagles less able to fight infectious disease," said Gary Duke, who is co-investigator of the lead study with Patrick Redig. Pathologist Ellen Lawler is also partially supported by the research grant.

Minnesota's Raptor Clinic, the only one of its kind in the country, has treated more than 70 eagles incapacitated by broken wings and legs during the past two years. Ninety percent of the eagles had lead levels which would be toxic to domestic dogs and cats, Duke said.

"One of the first things we must do in this study is establish standards as to what is a toxic level of lead in eagles," Duke said.

In 1976, the U.S. Fish and Wildlife Service launched a program to ban lead shot. The agency planned to phase in nontoxic steel shot, starting on the eastern seaboard

(MORE)

and gradually extending to other migratory bird flyways across the country.

The regulations sparked strong resistance among hunters who claimed the more expensive steel shot was less effective and damaged gun barrels. In response, the sportsmen filed lawsuits and began an intensive lobbying effort.

The lead-shot ban withstood the hunters' challenge until 1979 when a rider to the Interior Department's appropriations bill gave states an opportunity to withdraw from the federal program.

Minnesota presently requires steel shot in only certain areas of the state. Results of the Raptor Clinic study could have an impact on state laws affecting waterfowl management, Duke said.

"The state Department of Natural Resources requires a real good reason to change their regulations," Duke said. "What we're doing may provide a source of information which could determine changes in the management of game animals."

At this point, the veterinarians are unable to say how many birds will be included in the study. "That will depend on the number submitted to our clinic," Duke said. The clinic relies on the public to bring in injured birds.

Minnesota presently has 230 nesting pairs of American bald eagles and an estimated 200 to 500 "immature" eagles or birds under five years who have not grown white feathers on their heads.

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JANUARY 11, 1982

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3M GIVES \$1.2 MILLION
TO U OF M RESEARCH CENTERS

(FOR IMMEDIATE RELEASE)

The 3M Co. has given \$1.2 million to two research centers in the University of Minnesota Institute of Technology.

The major portion -- \$1 million -- will go to the institute's Microelectronic and Information Sciences Center (MEIS) for basic research over a two-year period, and the financial support will be considered for renewal in 1983. The remaining \$200,000 will help fund the Computer Aided Design/Computer Aided Manufacture Center (CAD/CAM) of the institute.

Lewis W. Lehr, 3M board chairman and chief executive officer, said the financial support recognized that the university and companies such as 3M have interests in common, including "complementary strengths in technological areas."

He spoke of an industry awareness of "the need to replenish the stock of basic research ideas and a belief that universities probably are best equipped to carry out this task in a cost-effective way.

"Closer interaction of this kind between academic institutions and industry can help the United States in its efforts to maintain a competitive world position," he said, commending the university and the institute "for taking the initiative and assuming a leadership role in this activity."

"Naturally, the entire university community appreciates 3M's vote of confidence," said university President C. Peter Magrath. "It is precisely this type of commitment that is so essential to advancing Minnesota's status as a high-technology leader."

Scientists from 3M's Electronic and Information Technologies Sector will collaborate with those of MEIS to help build on programs that already involve extensive

(MORE)

participation by research personnel at Control Data Corp., Honeywell Inc., and Sperry Univac, according to Robert M. Hexter, director of the center.

MEIS was established as a major research center two years ago in the Institute of Technology through efforts of the institute and Control Data, Honeywell and Sperry Univac. MEIS participants study new techniques and methods in micro-electronics -- the science of adding more electronic circuitry to computer chips -- and in the information sciences, the design of computer systems and software.

"We look forward to active, side-by-side collaboration between University of Minnesota faculty members and 3M research personnel, particularly in areas that have to do with the basic sciences underlying such critical requirements as the design and packaging of the high-density integrated circuits of the future," Hexter said.

The one-year, \$200,000 contribution to the CAD/CAM Center, part of the institute's mechanical engineering department, will be funneled into undergraduate education and the purchase of equipment for the areas of computer graphics and robotics.

This award represents initial funding for mechanical engineering's work in integrated design and manufacturing, which is part of the productivity center being built in the department.

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(AO,12;B1,12;CO,12;DO,12;E12)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
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January 12, 1982

MTR
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NEW MAGNET DISCOVERED IN
TEMPERATURES NEAR ABSOLUTE ZERO

By Jeanne Hanson
University News Service

A University of Minnesota physicist, using temperatures near absolute zero, has discovered a new kind of magnet.

Working with materials at temperatures two thousandths of a degree above absolute zero--minus 460 degrees, the point at which matter no longer provides energy--Walter Weyhmann has found that many materials that are not magnetic at normal temperatures become magnetic in extreme cold.

Colder than the spaces between the stars, absolute zero is a temperature at which rubber balls shatter and bananas become brittle. The Minnesota laboratory is one of about 20 in the country that can create such low temperatures, and the only one that is studying magnetism in this way.

The new magnet is an alloy of copper and praseodymium, the rare-earth metal that helps to create the spark of cigarette lighters.

This is pure science. The frontiers of physics stand some 20 years ahead of the technology and products to be derived from them, Weyhmann said. Applications can barely be imagined for the new magnets and the extreme helium refrigeration methods used to create them.

So far, technology is barely catching up with research at the relatively warm temperature of minus 452. A magnetocardiogram to measure barely perceptible changes in heart patterns is one possibility, Weyhmann said. The helium-cooled apparatus would be sensitive enough to monitor a patient continuously from a foot away without the electrodes that must be attached for electrocardiograms. Sensitive tools able to screen out background noise could be devised--with small refrigeration units attached--for use in prospecting and archeological digs.

(MORE)

Some technology is already in use at the minus 452-degree level, Weyhmann said. One device uses super-conducting magnets to help generate electrical power. Experimental Japanese and German trains now being introduced into this country have frozen magnetic motors that suspend them over and propel them along a wide solid metal track as the magnetic forces of train and track repel each other. And, at slightly colder temperatures, an astrophysical detector can sense very faint infrared energy from space.

Frozen magnets have proved to be useful in physics labs, too, where they help researchers make helium even colder for other experiments. "We were looking for a way to reach still lower temperatures when we happened to discover our new magnet," Weyhmann said.

But the biggest practical payoffs, again at minus 452 degrees, are the "Josephson junction" devices that may boost computer productivity. These superconductors generate very little of the waste heat that normally builds up, so computers can be constructed more densely, increasing their power and speed. IBM is developing a computer with superconductor components that will work in this convenient cold, Weyhmann said.

Meanwhile, Weyhmann's work continues at the frontier temperatures of one or two thousandths of a degree above absolute zero.

To achieve this cold, he begins with helium liquified and cooled from its gaseous state and stored in a 60-gallon insulated canister. The liquid is allowed to expand and partly evaporate in a six-foot-high "thermos bottle" with several well-insulated layers, cooling the helium one step more. Next, with 20-pound superconducting magnets that can create a magnetic field 100,000 times stronger than the earth's, the copper-praseodymium alloy is quickly magnetized and then demagnetized within the bath of frigid liquid helium. At each of these steps, the helium must perform "work," which lowers its energy and hence its temperature. Beneath the helium, in a vacuum deep within the coil of the magnet, a small sample can be studied.

(MORE)

In this deepening cold, the fundamentals of magnetism begin to emerge, Weyhmann said. As heat energy is withdrawn, the chaotic activity of the atoms in the sample calms. At even lower temperatures, the nuclei of the atoms, originally weakly magnetic, become definitely magnetic. The sample then resembles iron, with a magnetism entirely due to the natural line-up of the electrons. This line-up reinforces the magnetism within each atom, making latent magnetism perceptible.

Many materials are magnetic at minus 452 degrees, Weyhmann said. They can become as magnetic as iron, nickel and cobalt, whose electrons conveniently line up magnetically at normal temperatures. But even iron has its limits: it is magnetic only from absolute zero up to about 1,400 degrees. Above that temperature--in the core of the earth, for example--the magnetic behavior of iron is not yet well understood.

As the next step in his research, Weyhmann would like to experiment with metal alloys and magnetic processes at temperatures even closer to absolute zero--just one ten thousandth of a degree above.

This temperature is near the limit of what is possible, since each step colder requires more work from machinery becoming progressively less efficient. Absolute zero can never be reached. But Weyhmann will be moving closer to it in basic research, and he may contribute to technology that won't be imaginable until well into the 21st century. In the meantime, his work will further scientific understanding of basic magnetism.

-UNS-

(A0,4,18;B1,12;C0,4,18;
D0,4;E0,1,4,4h;I4)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 13, 1982

MTR
N47
8A4P

NEWS PEOPLE: For further information
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WORK OF LOCAL FILMMAKERS
TO BE SHOWN AT U OF M

(FOR IMMEDIATE RELEASE)

About 20 films produced by three local independent filmmakers will be shown at Coffman Union at the University of Minnesota during the next few weeks.

All three filmmakers, Debra Estes, Jack Pennington and Jon Peterson, are in their 20s and attended Moorhead State University. They will discuss their films and their ideas on filmmaking during and after the sessions.

The films will be shown three times: 7 p.m., Jan. 21, room 325 Coffman Union; 2 p.m., Jan. 27, Coffman Gallery II; and 2 p.m., Feb. 3, Coffman Gallery II. All sessions are free and open to the public.

Films to be shown range in length from one to 12 minutes. Each session is scheduled to last about two hours.

Estes is studying at Film In The Cities in St. Paul. She prefers making silent films and is most interested in the visual aspects of film.

Pennington, who has produced films for the past four years, focuses on political concerns in his work. Peterson describes his work as non-traditional narrative.

Tom Westbrook, Coffman Gallery coordinator, said there may be more film and slide presentations by local producers if these sessions are well-attended.

-UNS-

Editor's note: The filmmakers will be available to the press after each session.

(AO,2;BL,13;CO,2)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
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Telephone: (612) 373-7517
January 13, 1982

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6

ARTIFICIAL ORGANS OF THE FUTURE:
LEGS THAT WILL DANCE, PLAY SOCCER

By Jeanne Hanson
University News Service

In Max Donath's lab at the University of Minnesota, three moving curtains of laser light sweep the room as an experimental subject passes through.

In another laboratory, cadaver wrists are fitted with light-emitting diodes and manipulated back and forth as their movements are analyzed by computer.

In a third lab, blood courses through smooth tubes of different widths, its reactions carefully measured.

The purpose of each of these engineering experiments is not the transplantation of living organs but the development of artificial substitutes.

"In transplants, the organ works well, but it may be rejected. With artificial organs, the organ is not rejected, but it may not work well," said Kenneth Keller, a university chemical engineer whose work on the fluid mechanics of blood will play a role in the development of successful artificial organs.

Engineers have been working on artificial organs for only about 10 years, according to Arthur Erdman, a bioengineer in the university's mechanical engineering department. "Our role is to make sure the measurements are right, and of the correct parts of the organ or joint," he said.

Engineers talk about the kinematics and kinetics of joints: the patterns of their movement, the forces they exert, the work extracted from them and the stresses they absorb. They discuss the fluid mechanics of blood, the way it flows in tubes of different sizes, how it reacts to contact with various materials.

The first offspring of this marriage of medicine and mechanics at the University of Minnesota is the infusion pump developed in 1970. The pump, once implanted, functions as an artificial gland, dispensing drugs into the bloodstream just as

(MORE)

glands secrete hormones.

Beyond the pump lie artificial legs that will dance and play soccer and artificial spines, wrists, jaws, ankles and fingers that will bring greater freedom of movement to the handicapped and to those who suffer from scoliosis, a common spine disorder.

Eventually, researchers hope to arrive at what may be an ideal solution: a hybrid organ, part mechanical and part biological.

Donath's lab is a jumble of laser tubes and scanning equipment, artificial legs and notes on computer programs that may instruct the artificial legs of the future. A computer screen creates a stick figure in precise movement.

Donath, a professor of mechanical engineering, is analyzing the way we walk. The computer program he and students Jane MacFarlane and Sabri Eken are writing can detail different walking styles based on the age, weight and sex of the walker.

The strides of experimental subjects along laser-scanned paths in the laboratory will be used to refine the program. To record them, lasers sweep through the room at different angles, creating three moving curtains of light. As the subjects walk through these sheets of low-powered light, their movements are characterized mathematically. Donath and MacFarlane are patenting the system through the university.

Donath's goal is a computerized artificial leg. A tiny microprocessor will tell the leg to walk in a style appropriate to the wearer, be it a middle-aged, heavyset man or a tall and slender young woman. It will stimulate the muscles that still work in a handicapped leg.

"Our pie-in-the-sky dream is to help paralyzed people walk, play soccer, dance and water ski," he said. Leg models now on the market are crude and don't last long, and at least 2 million people could benefit from an improved artificial leg, Donath said.

Arthur Erdman's lab is crowded with his projects on artificial spines, wrists, jaws, ankles and fingers. Like Donath, he is a mechanical engineer. In one corner there is a small pile of brochures on the spinal wrench Erdman invented with orthopedic surgery professor Jack Mayfield, along with beginning notes on a spinal compression rod, a cooperative project with the 3M Company. The rod will be used to reinforce a curved spine. Without correction, severe spinal curvature can compress the lungs and impede the heart's pumping.

(MORE)

Another corner houses the material for Erdman's wrist experiments -- a freezer of wrists from cadavers. With light-emitting diodes between the bone segments and on both sides of the joint, the wrists are manipulated for computer filming and analysis of their motion. Reconstructive surgery on wrist ligaments and tendons has already benefitted from Erdman and Mayfield's findings. In several years, they hope to have an artificial wrist of steel, titanium and plastic.

On Erdman's desk lies a plaster model of a human jaw, like those in an orthodontist's office. It is used in computer analysis of chewing. Erdman and John Schulte, an occlusion specialist in the university's School of Dentistry, are also beginning to use it to test the accuracy of dental articulators, the apparatus used by dentists and orthodontists to make bridges and to design plans for orthodontic work. Erdman is also launching tests of ankle and finger joints now on the market in the hope of designing new ones based on engineering improvements.

Keller, a professor of chemical engineering and materials science, is working on the fluid mechanics of blood in internal organs. Blood is altered by almost any synthetic material, a fact that has serious consequences for the development of artificial organs. Keller is also studying the way chemicals diffuse in blood and how blood passes through different porous materials.

So far, only some of an organ's functions can be duplicated, Keller said, partly because no one yet understands all the functions of any one organ. Neither can scientists reproduce the smallness and efficiency of many blood vessels or copy the movement of body chemicals between areas of different concentrations. Enzymes cannot be synthesized. And researchers have not yet found a material that does not somehow alter blood, by changing its absorption of sodium and potassium, for example, or by causing it to clot.

The future belongs neither to totally artificial organs nor to transplanted ones, but to hybrids, Keller said. In a hybrid, natural cells could be placed in a synthetic covering inside the body. Blood would move in and out of the hybrid organ through a porous material; the material would allow the blood to move freely but block the body chemicals that attack transplanted cells.

Hybrid versions of the pancreas, liver and thyroid are among the possibilities, Keller said. But in spite of technical advances and high hopes for the future, in an area as challenging as developing artificial organs, Keller does not dream of bionic people. "Humility is more successful," he said.

-UNS-

(AO,4,23,24;B1,12;CO,4,4e,23,24;DO,4,4e,23,24;
EO,1,4,4e,23,24;I4,23)

UNIVERSITY OF MINNESOTA
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JANUARY 14, 1982

mTR
N47
g. A. J. P.

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MEMO TO NEWS PEOPLE

Sen. Barry Goldwater, R-Ariz., will hold a press conference Monday (Jan. 18) at 6:15 p.m. in the Continental Room on the seventh floor of the Northstar of Minneapolis, 618 - 2nd Ave. S.

The senator is visiting Minneapolis as a guest of the University of Minnesota Hubert H. Humphrey Institute of Public Affairs to deliver the first talk in the Carlson Lecture Series. His talk, "The Conscience of a Conservative, 1982," will begin at noon Tuesday (Jan. 19) in Northrop Auditorium on the Minneapolis campus. This will be his first major talk since he underwent hip surgery in November.

Northrop Auditorium is equipped with a camera platform, a mult box for audio and a press section near the front of the stage. Members of the press may want to enter the auditorium through the door at the northeast corner of the building near the loading dock. Signs will be posted to direct reporters to the press section.

Goldwater will begin his press conference Monday with a four to five minute statement on foreign policy and defense and will then field questions from reporters. The Continental Room is equipped with a mult box for audio, but does not have special lighting for television.

The 73-year-old senator gained attention last fall when he voiced strong opposition to involvement in politics by either extreme right or left religious groups.

Except for four years after his unsuccessful bid for the presidency in 1964, Goldwater has served in the U.S. Senate since 1953. He was re-elected for his fifth term in 1980. He currently serves as chairman of the Senate Select Committee on Intelligence. He is also a member of the Armed Services Committee, the Commerce, Science and Transportation Committee and the Senate Select Committee on Indian Affairs.

-UNS-

(AO,3,13;BI;CO,3,13)

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UNIVERSITY OF MINNESOTA
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JANUARY 15, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
Jan. 20-26

- Wed., Jan. 20--North Star Gallery: New watercolors by Herb Hultgren. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Jan. 29. Free.
- Wed., Jan. 20--Goldstein Gallery: "A Stitch Here, A Stitch There: An International Sampling of Embroidery." 241 McNeal Hall. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through Feb. 15. Free.
- Wed., Jan. 20--Nash Gallery: Paintings by Jim Burpee and Dale R. Johnson; photographs by Daniel Barnes, Jennifer Kramer, David Madson and Dave Shippee. Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through Feb. 12. Free.
- Wed., Jan. 20--The Gallery: "Doorways and Windows," paintings by Barbara Claussen. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through Jan. 29. Free.
- Wed., Jan. 20--Coffman Union Gallery: Minneapolis College of Art and Design faculty show, Galleries 1 and 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through Jan. 27. Free.
- Wed., Jan. 20--University Gallery: "Young Minnesota Artists: A Juried Competition," through Feb. 7. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., Jan. 20--Whole Coffeehouse: Jugsluggers, bluegrass. Coffman Union. Noon. Free.
- Wed., Jan. 20--Films: "Yo Soy Chicanos" and "Decision at Delano." Theater-lecture hall, Coffman Union. 12:30 and 7 p.m. Free.
- Wed., Jan. 20--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Thurs., Jan. 21--Films and discussion: About 20 films by Debra Estes, Jack Pennington and Jon Peterson, local independent filmmakers. 325 Coffman Union. 7 p.m. Free.
- Thurs., Jan. 21--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Thurs., Jan. 21--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3, \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Fri., Jan. 22--Film: "Breaker Morant." Theater-lecture hall, Coffman Union. 1:30, 7 and 9:10 p.m. \$2.50, \$1.50 for students with U of M ID.
- Fri., Jan. 22--Whole Coffeehouse: John Fahey, guitarist, and opening set with Papa John Kolstad. Coffman Union. 7 p.m. \$7, \$5 for U of M students with current fee statement.

(OVER)

- Fri., Jan. 22--University Film Society: "Man of Marble" (Poland, 1978). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Fri., Jan. 22--Bijou film: "Sunset Boulevard" (Billy Wilder, 1950). Program Hall, West Bank Union (Willey Hall, east end, lower level). 8 p.m. \$1.50.
- Fri., Jan. 22--Concert: The St. Paul Civic Symphony, The Reginald Buckner Quartet and several church choirs. In honor of the late Dr. Martin Luther King, Jr. Northrop Aud. 8 p.m. Free.
- Fri., Jan. 22--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3, \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Sat., Jan. 23--Film: "Breaker Morant." Theater-lecture hall, Coffman Union. 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with fee statement.
- Sat., Jan. 23--University Film Society: "Last Year of Childhood" (W. Germany, 1979). Bell Museum of Natural History aud. 7:30 p.m. Director Norbert Kueckelmann will be present. \$2.75.
- Sat., Jan. 23--Bijou film: "Sunset Boulevard" (Billy Wilder, 1950). Program Hall, West Bank Union (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Sat., Jan. 23--Concert: REMS, rock and roll. 125 Willey Hall. 8 p.m. \$2.50.
- Sat., Jan. 23--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3. \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Sun., Jan. 24--University Film Society: "The Tree of Wooden Clogs" (Olmi, Italy). Bell Museum of Natural History aud. 2 p.m. \$3.
- Sun., Jan. 24--Film: "Breaker Morant." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50, \$1.50 for U of M students with fee statement.
- Sun., Jan. 24--University Film Society: "Albert-Why?" and "End of the Rainbow." Bell Museum of Natural History aud. 7:30 and 9:40 p.m. \$2.75.
- Mon., Jan. 25--University Film Society: "Jail Bait" (Fassbinder, 1972) and "The Experts" (W. Germany, 1972). Bell Museum of Natural History aud. 7:30 and 9:15 p.m. \$2.75.
- Tues., Jan. 26--Film: "All Through the Night." Theater-lecture hall, Coffman Union. Noon and 8 p.m. \$1.50.
- Tues., Jan. 26--University Film Society: "Second Awakening of Khrista Klages." Bell Museum of Natural History aud. 7:30 p.m. \$2.75.

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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JANUARY 18, 1982

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U OF M PRESIDENT CALLS FOR NEW STUDY
OF HOSPITAL RENEWAL PROJECT

(FOR IMMEDIATE RELEASE)

University of Minnesota President C. Peter Magrath announced today an independent review and assessment of University Hospitals' renewal project by a nationally known health care consultant.

"I have concluded that it would be wise to get an additional opinion regarding the basic assumptions underlying the project in light of the state of Minnesota's current fiscal situation and, in particular, because of the possible fiscal impact of proposed changes in federal health care policy and legislation," Magrath said.

Robert Derzon, vice president of Lewin and Associates, a Washington-based consulting firm, will head the study which is expected to be completed in 30 to 60 days. Derzon's findings will be reviewed by the university Board of Regents before a final determination on project financing is made, Magrath said.

Derzon has served as administrator of the federal Health Care Financing Administration and as a hospital administrator at the University of California at San Francisco.

"Mr. Derzon has been asked to analyze our hospital project in light of the most likely trends in demand for hospital-based health services and federal financing for health care, and the impact of these trends on the University Hospitals in the 1980s and 1990s," Magrath said. "Essentially, we will be asking Mr. Derzon to assess the validity of the basic health care assumptions used throughout the renewal process."

Commenting on the president's call for an independent review, Dr. Lyle A. French, vice president for health sciences, said: "While I have every confidence in the studies which have confirmed the feasibility of the project on a number of occasions,

(MORE)

STUDY

-2-

there are assumptions about the future economy and health care legislation which invite further review. I am pleased the president has taken this opportunity to call upon the assistance of an individual with the background and national stature of Mr. Derzon. This is in keeping with our commitment to the Metropolitan Health Board and the Legislature to ensure a feasible and prudent project."

Ernst & Whinney, a financial accounting firm, has completed two studies of the hospital project's feasibility, concluding both times that University Hospitals will have sufficient revenue and cash flow to meet operating expenses and debt requirements.

In its latest report presented to the regents on January 7, however, the firm noted that "If future legislation related to hospital operations is subsequently enacted, this legislation could have a material effect on future operations."

Present plans call for the construction of a nine-story facility on East River Road that would replace 425 of the existing 719 beds in the hospital complex. The new building would also contain the majority of ancillary services such as emergency and operating rooms.

Hospital officials announced in early January plans to trim the size of the new "Unit J" by deferring construction of the tenth floor with a net reduction of 95 beds. The bed cut would not affect the overall licensed capacity of 719 beds. However, hospital officials noted that a final decision on the number of beds will depend on health care demand, market forces and the approval of the Metropolitan Health Board.

-UNS-

(AO,1,23,24;B1;CO,1,23,24)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
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January 19, 1982

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EVEN THE HARDY (AND THEIR PETS)
CAN FALL VICTIM TO BITTER COLD

By Ralph Heussner
University News Service

Even the hardest Minnesotan who has survived the most lethal winters of the past can fall victim to cold weather injury and so can their pets.

Frostbite can strike within minutes in sub-zero temperatures and high wind-chill. Hypothermia -- abnormally low inner body temperatures -- can be deadly if not detected promptly and treated properly.

Common sense, preventive care and proper first aid can save frostbitten extremities and the lives of hypothermia victims, University of Minnesota health experts advise.

Frozen fingers, toes, nose and earlobes are the first indication of heat loss. Cold constricts blood vessels to conserve heat for vital organs such as the kidneys, heart and brain. When deprived of blood and oxygen, tissue dies.

Red skin characterizes the first stage of frostbite. Next, the tissue turns white and there is a loss of sensation. Finally, nerve endings are destroyed and blisters form.

In case of frostbite, rapid rewarming in water of 100 to 105 degrees should be started as soon as possible and should continue until circulation is restored and the skin returns to its normal color. If the injury has reached the blistering stage, medical help should be sought immediately. Blisters must not be punctured. Physicians advise against rubbing the skin and rapid flexing of muscles which could further damage brittle body tissue.

Because pupils are dilated and the body feels cold, the hypothermia victim may appear to be dead, but may still be alive. People have survived prolonged periods of hypothermia without damage to vital organs.

(MORE)

"Someone isn't dead until they're warm and dead," said Christina Shih, director of University Hospitals' emergency room. "People have done very well after being resuscitated after periods (of unconsciousness) up to 45 minutes to an hour."

Hypothermia victims experience a metabolic slowdown -- weakened pulse and slowed heartbeat -- as the body attempts to conserve oxygen and energy.

Chances for recovery depend on the severity and length of exposure to the cold as well as previous health of the victim. If body temperature does not drop below 90 degrees, chances for normal recovery are good. If the temperature falls to between 80 and 90 degrees, most victims will recover but some sort of lasting damage is more likely. Victims have survived, however, with body temperatures as low as 63 degrees.

Hypothermia victims must be rewarmed, but the therapy should be done in a hospital setting by a physician familiar with the affliction. But before medical help arrives, further heat loss can be prevented by wrapping the victim in warm blankets. Apply hot water bottles or electric heating pads on the victim's abdomen. A victim who is alert can be given small quantities of warm food and liquids -- but nothing alcoholic.

If these methods are not available, use your body heat to help keep the victim warm. Lie close to the person but don't rub the victim's limbs because that only makes the condition worse.

Here are some common sense suggestions for cold weather survival:

--Wear a hat. "The body is like a thermos. You have to have a cap on," Shih said. A hatless head may account for a 20 to 40 percent loss of body heat.

--Don't consume liquor. Alcohol opens tiny blood vessels in the skin, allowing the loss of heat. Intoxication can also mean a loss of sensation. As a result, one may be unaware of a frostbitten finger or toe.

--Stay dry. Moisture steals natural body heat. If an outer layer of clothing is wet, remove it; water conducts heat 32 times faster than air. Avoid cotton clothing because its insulating qualities are not as good as wool and water-repellant synthetics.

(MORE)

--Insulate yourself. Joggers, skiers and others who spend time outside can attest to the effects of layering. Wear several layers of light, loose-fitting clothes. These layers trap the warm air produced by the body.

--Make your own heat. If you begin to shiver -- one of the first signs of internal heat loss -- you can help heat yourself by waving your arms, walking briskly or stomping your feet. If warm drinks are available, fill up. But the best advice, of course, is to get inside.

EXTRA CARE FOR PETS

"Animals have a phenomenal ability to adapt to the cold if they have been acclimated to gradually decreasing temperatures since summer," said veterinarian Betty Kramek of the university's Small Animal Hospital in the College of Veterinary Medicine.

Nevertheless, it is still advisable to take some precautions to insure the health and comfort of your domestic animals, Kramek said. Here are some of her suggestions:

--Provide an air-tight, covered shelter, preferably with straw on the ground and burlap covering the entrance.

--Make sure your animal has water and plenty of food. Allow your pet choice regarding the time and amount of feeding.

--Make sure your pets are healthy. Any illness or disease will reduce the animal's ability to withstand very cold weather. Extreme cold will exacerbate arthritic conditions in animals as well as humans.

--Watch for frostbite. The most obvious symptom of frostbite in an animal is a cracked and bleeding ear. But don't put a freezing animal in a hot bath. The animal's blood vessels may expand too rapidly, causing thermal shock. Before re-warming, contact a veterinarian.

-UNS-

(FOR RELEASE ANY TIME)

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January 20, 1982

NYT 12
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9A-1P

PANCREAS TRANSPLANTS MAY
HOLD HOPE FOR DIABETICS

By Ralph Heussner
University News Service

Pancreas transplants may be the answer University of Minnesota researchers have been seeking for almost 20 years in the quest for a surgical treatment for diabetes.

Since the mid-1960s Minnesota researchers and clinicians have been looking for a safe and effective surgical treatment for diabetes, a disease which affects nearly 10 million Americans. Though limited to a few patients (primarily those who have undergone a kidney transplant) doctors say pancreas transplants may someday be offered as an alternative treatment for patients who have severe diabetes.

"Our ultimate goal is to cure diabetes," said university surgeon David Sutherland. "Pancreas transplantation is still a developing therapeutic procedure, but more and more evidence is accumulating that a successful pancreas transplant can provide control of diabetes. We feel that we are on the verge of being able to do this with a pretty high rate of success."

The pancreas, a pear-shaped organ located behind the stomach, produces insulin, the vital hormone that allows the body to turn food into energy. A diabetic's pancreas either delivers no insulin or an insufficient amount of insulin. By replacing the pancreas, doctors hope to restore the body's normal insulin-producing function and, as a result, avoid the serious complications of diabetes, which include blindness, kidney failure and heart disease.

Minnesota surgeons Richard C. Lillehei and William Kelly performed the world's first pancreas transplant at University Hospitals in 1966. Since then, approximately 200 transplants -- 54 at Minnesota -- have been attempted in the world, making the procedure rarer than heart transplantation.

(MORE)

In their pioneering work, Lillehei and his associates transplanted whole cadaver pancreases in 14 patients between 1966 and 1973. While most of the organ grafts functioned for a while -- one for a year -- there were technical complications in some cases and rejection in others. Most of the patients eventually died from complications of diabetes after the transplanted pancreases ceased to function.

Between 1974 and 1978, Minnesota doctors, under the direction of surgery chief John Najarian, turned their attention to a new method of controlling diabetes by transplanting only the islets of Langerhans, tiny clumps of cells amid the ordinary cells of the pancreas. These million or so cells, weighing only about a single gram, produce insulin. Eighteen such transplants were performed in 13 patients, but it was difficult to extract enough islets from donor pancreases, and the cells were extremely susceptible to rejection. None of the patients was cured of diabetes.

In 1978, Sutherland and Najarian returned to pancreas transplants. But this time, instead of transplanting the whole organ, only part of the pancreas -- the lower third, called the tail -- is placed in the patient's abdominal cavity. This new technique, called the segmental pancreas transplant, has given doctors renewed optimism in their quest to conquer diabetes.

"Pancreas transplantation is making a comeback," Sutherland said. "It is clearly more efficient than islet transplantation, and it is safer than before."

Of 40 segmental pancreas transplants, 12 are still functioning after periods of one month to three years. While the Minnesota doctors acknowledge that these results are not outstanding statistically, they do illustrate the procedure's potential to control diabetes.

"We do them too late," Sutherland said. "Our patients are already at risk with severe problems. Our goal is to work with younger patients and to develop better immunosuppressive drugs. Widespread application will not be possible until better immunosuppression is available."

The university limits the pancreas transplant program to patients whose risks from diabetic complications are greater than the risk posed by rejection-preventing

drugs. Most of the patients who received transplants were already on these drugs for previous kidney grafts.

Islet cell transplantation research has also been renewed at Minnesota. Sutherland and his colleagues have returned to laboratory experiments with animals in an attempt to perfect the technique.

"A major problem is islet yield," Sutherland said. "Ultimately, however, it should be possible to transplant several diabetic recipients with islet tissue prepared from one donor. This potential does not exist with pancreas transplantation."

-UNS-

(AO,23,24;B1,4,5;CO,23,24;DO,23,24;
EO,1,23,24;I23)

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 20, 1982

NEWS PEOPLE: For further information
contact PAUL DIENHART, (612) 373-7512

FAIR WILL GIVE MINORITIES
FACTS ON GRADUATE PROGRAMS

(FOR IMMEDIATE RELEASE)

A one-day information fair for minority persons interested in graduate education -- particularly in law and the health sciences -- will be held Feb. 8 at Coffman Union on the Minneapolis campus of the University of Minnesota.

Information booths on graduate programs and careers in such areas as law, medicine, business, engineering, journalism and education will be open from 11 a.m. to 6 p.m. in Coffman Union's Great Hall.

Roger Buffalohead, former head of the university's American Indian studies department, will give the keynote address on graduate education for minorities from 10 to 11 a.m. From 11 a.m. to noon there will be a workshop on financial aid. Dr. Thelma Spencer of the Educational Testing Service will speak from 1 to 2 p.m. on test-taking skills for the admission tests for graduate programs. From 2 to 4 p.m. there will be panel discussions on law and health science programs involving faculty, administrators and minority professionals and graduate students. The public program will end with social time from 4 to 5:30 p.m.

For more information, call Paul Barrows at (612) 373-5495.

-UNS-

(AO,3,8,8a;B1,17;CO,3,8,8a;DO,3,8,8a)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 21, 1982

MTR
N47
g. A4P

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

HIMALAYAN EXPEDITION SUBJECT
OF MULTI-MEDIA SHOW AT U OF M

(FOR IMMEDIATE RELEASE)

One of the first Americans to scale Makalu Peak in the Himalayan Mountains in Tibet will present a multi-media show on the climb Feb. 16 in the St. Paul Student Center of the University of Minnesota.

John Roskelley of Spokane, Wash., and three others made the 53-day climb to the summit in 1980. Roskelley, a professional mountaineer and photographer, organized and led the expedition.

The four climbers went up the west side of the mountain without oxygen tanks and without the guidance of Himalayan natives. The peak is one of a few in the world higher than 8,000 meters (about five miles) that had never been climbed by Americans.

The slide show, "Four Against Makalu," will begin at 7:30 p.m. in the theater of the student center. Tickets are \$3 in advance and \$3.50 at the door. They are on sale at the student center program office and at Midwest Mountaineering, 309 Cedar Ave., Minneapolis.

Sponsors for the event are the St. Paul Student Center Recreation Committee and Midwest Mountaineering.

-UNS-

(AO,3;B1,13;CO,3)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7517
January 25, 1982

MTR
1147
5A-7P

COPING WITH 'CABIN FEVER':
ADVICE FROM THE FROZEN NORTH

By Jeanne Hanson
University News Service

Dissatisfied at home, restless, bored, irritable, stuck in your routine, frustrated, impatient, depressed, useless, sluggish, moody, angry, or lonesome?

These feelings -- listed in order of frequency -- are the most commonly reported symptoms of "cabin fever," that cooped-up feeling that can hit during long spells of winter weather.

Minnesota -- where coping with cold weather is a way of life -- can offer help to the rest of the frozen country, now digging out from one of the most unusual winters on record. A recent University of Minnesota research project has turned up many methods Minnesotans use to cope with cabin fever, and has found who is most prone to it and why.

Paul Rosenblatt, professor of family social science at the university, and his colleagues interviewed a sample of Minnesotans ranging in age from 17 to 80. They found that cabin fever hits at least half of Minnesota's population during a given winter. Families with young children, the elderly, the unemployed and those who are sick or caring for a sick person are especially hard hit, he said.

"For some people who are widows or widowers, sometimes Sunday can be a very heavy day," he said. "That used to be a family togetherness day."

Getting out -- no matter how cold it is -- is the most common way people cope with cabin fever, he said. Escaping from family members, especially children, even if only for a brief shopping trip, is helpful since cabin fever can quickly move from an individual problem to a relationship problem, he said.

Breaking one's routine and keeping busy were the next most common coping methods mentioned by the respondents. Planning a party, calling a friend on the phone, exercising, even doing more home chores apparently help. Winter hobbies were often cited too, everything from sewing to furniture refinishing to cross country skiing. In fact, Rosenblatt said, people who enjoy winter sports are less likely to get cabin fever at all.

(MORE)

Also mentioned as helpful were reading, watching television, visiting a friend and taking a trip, Rosenblatt said.

Anticipating cabin fever can lead to other solutions too, he said. "You see it in your kids and you try to get them organized to do something so they're not so mopy and inert or irritable," he said. For school vacations, school "snow days," and weekends, parents should plan excursions and have a supply of games and library books on hand.

In the community as a whole, arts and other entertainment events should be scheduled specifically for winter. Planning more services for the elderly on Sundays, instead of only on weekdays, is a good idea, Rosenblatt said.

And, he added, cities with a domed stadium or covered sports arena should consider opening it up for families occasionally during the winter so children could play on the grass and the parents could jog.

The darker the day, the deeper the cabin fever, it seems. In Anchorage, Alaska, for example, where winter sunshine hours are especially short, there is a special clinic for cabin fever sufferers, Rosenblatt said. And calls to social service agencies in Minneapolis and St. Paul often peak on dark days when the barometer reading is low.

People vary in how they react to cabin fever, Rosenblatt added. Some tend to become confused and bewildered, others blame themselves for a spouse's cabin fever, some become extremely inert, and others almost "throw the davenport through the living room window," Rosenblatt said. One respondent said that, as a child, she'd been beaten on "days like this."

But most people can help themselves cope pretty well, Rosenblatt said. One interviewee coped with cabin fever by dreaming of owning a cabin even farther north.

"You can get the view that we're all passive victims of our problems and that we need psychotherapists to bail us out," Rosenblatt said. "But what was clear in the cabin fever interviews was that people really do help themselves and that everybody had solutions to cabin fever."

-UNS-

(AO,6;B1;CO,6;DO,6;EO,1,6)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 26, 1982

MTR
N47
2:24p
6

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

U OF M ENROLLMENT UP
12TH QUARTER IN A ROW

(FOR IMMEDIATE RELEASE)

A record 56,091 students are attending classes at the University of Minnesota this winter making the quarter the 12th consecutive one in which enrollment has increased.

Figures released by the Office of Admissions and Records show enrollment increased by just under 1 percent this quarter, with 458 more students on the system's five campuses this year than last.

The Twin Cities campus increased by 327 students for a total enrollment of 44,942. There are 24,985 men and 19,957 women attending classes. More students -- 16,919 -- are enrolled in the College of Liberal Arts than in any other unit. Enrollment in the Institute of Technology increased by 329 students and 162 more students are enrolled in the Graduate School this winter.

Other increases on the Twin Cities campus were in the College of Education, General College and the College of Home Economics. Enrollment in the College of Education increased by 121 students for a total of 1,888, and General College's enrollment increased by 30 students to 3,211. Enrollment in the College of Home Economics increased to 1,286 -- 29 more students than last year.

There was little fluctuation in enrollments at other campuses. Duluth campus enrollment grew by 63 students to 7,203. At Morris, the student population grew from 1,551 students last year to 1,619 this winter. There was almost no change at Crookston or Waseca. Crookston's enrollment decreased by one student; Waseca's increased by one student.

"Once again it is clear that the citizens of our state value higher education and see the University of Minnesota as a unique educational resource," said university President C. Peter Magrath.

Magrath called January a record-setting month because of the continued increase in enrollment in the face of "the single largest funding cut" in the university's history.

"Our dilemma is equally clear," he said. "It becomes increasingly difficult to educate record numbers of students at the high quality that they and our state expect with fewer funds."

-UNS-

(AO,1;B1,10;CO,1;E15)

FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7514
January 27, 1982

MTR
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844P

CHICANO MUSIC BIG PART OF U.S.
CULTURE, U OF M PROFESSOR SAYS

By Judith Raunig-Graham
University News Service

When people think about American music they typically think about jazz. But a University of Minnesota professor believes they should also consider Chicano music.

"Chicano music is an essential, significant part of American music," said Johannes Riedel, a member of the university's School of Music staff since 1953. "When the outside world asks what American music consists of most would say jazz or the (Negro) spiritual. But Chicano music also plays that role of being representative of American music."

Riedel has taught a course in Chicano music through the university's Chicano studies department and as a visiting professor at the University of California in San Diego and the University of New Mexico in Albuquerque. He may be the only music professor in the country who is an expert on the subject.

His interest in the music of Mexican-Americans was natural, Riedel said. He lived in Ecuador for 10 years after he emigrated from Europe in 1938 to escape the Nazis. In Ecuador, where he was known as Juan Riedel, he learned to speak Spanish and to love Latin music.

After moving to the United States in 1948 he earned his doctorate in musicology -- the historical and scientific study of music -- from the University of Southern California in Los Angeles. Throughout his long career American music has been one of his specialities.

Riedel became interested in studying and teaching Chicano music in about 1977. He saw it as a way to tie together his Latin American and American musical experiences. "As a scholar it is always very exciting to be helpful in opening up a

(MORE)

relatively little known field of cultural artistic history," he said. "You feel like a pioneer; you are a pioneer."

Because of his expertise, Riedel is helping put together a television program on Chicano music and art which is expected to be broadcast by Public Broadcasting Service in about 1983. The half-hour show is being produced by University Media Resources, with Riedel as consultant. The film is being financed by a \$47,600 grant from the Ethnic Heritage Studies Program of the U.S. Department of Education.

Modernism in Chicano popular music will be the focus of the program, which will be filmed in South Texas in February. Serving as a consultant with Riedel is American Studies doctoral candidate Santos Martinez, who assists Riedel in teaching his course.

The Brownsville, Texas area was chosen for filming because of the large Hispanic population and the abundance of Chicano music. It also is the home of a style of Chicano music called the "conjunto," performed by a small ensemble consisting of a singer, an accordion player, a guitarist and a bass player.

Shortly after the Civil War German and Czech immigrants poured into the area to build the railroad, Riedel said. There was close contact between the immigrants and the Spanish-speaking population, which adopted some of the European customs and styles of music. Those influences are apparent in modern Chicano music produced here

"It is usually of simple musical construction and can be easily understood, learned and sung," Riedel said. "There are both instrumental and vocal varieties. Vocalists are usually accompanied by a guitar or accordion or by a mariachi band -- a band consisting of strings and brass."

"Chicano music has a melodic quality similar to Italian folk and popular music," Riedel continued. "It is most often sung in Spanish and often deals with family bonds or the relationship between lovers. The 'corrido' is especially popular. It is a narrative poem dealing with contemporary issues that is set to music."

The corrido is similar to the Anglo-American ballad except that the latter usually deals with past centuries, while the Chicano song deals with current issues

(MORE)

such as the deaths of seven student nurses in Chicago or the assassination of President John F. Kennedy.

Riedel said that many Mexican-Americans consider the late president a hero and there are at least 50 corridos about him. If a corrido deals with a violent event, perhaps in a Chicano barrio, it is called a "tragedio." Tragedios are particularly popular in Texas.

Chicano music varies in the three areas of the country -- Texas, California and New Mexico -- where it is most common, Riedel said. State histories are often featured in the lyrics of a song and the instrumentation can also differ so that music produced in South Texas would not necessarily be appreciated in Los Angeles.

Use of the accordian predominates in the South Texas music, but it isn't used at all in California Chicano music, Riedel said. In New Mexico, where Spanish-speaking people have lived for more than 200 years, the Spanish heritage is emphasized, while in California the Mexican heritage is foremost.

Chicano music in California is influenced by heightened political consciousness, Riedel said, so such subjects as illegal aliens from Mexico or the United Farm Workers Union led by Cesar Chavez are explored.

There is a sophisticated recording industry in Los Angeles, and in South Texas there are many small record factories and the musicians usually perform for more than one.

Many musicians produce their own records. One of them, Jose Morante, has made the corrido the basis of his profession. Riedel considers him extremely talented because he can write a corrido (which must rhyme) in a day. Corridos must be produced right after an event or they won't sell, Riedel said.

Riedel is scheduled to retire next year, but he doesn't expect to retire his interest in Chicano music. He plans to lecture on the often overlooked form of American music.

-UNS-

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 27, 1982

MTR
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GAP

NEWS PEOPLE: For further information
contact PAUL DIENHART, (612) 373-7512

U OF M CONFERENCE TO
LOOK AT WORLD HUNGER

(FOR IMMEDIATE RELEASE)

"World Hunger and 'U'," a series of free public workshops, films and lectures, will be presented Feb. 8 through 11 at the University of Minnesota's St. Paul Student Center.

Each day there will be a noon lecture and discussion and a 3 p.m. workshop. There also will be films on hunger topics, usually in both morning and afternoon.

Dick Clark, former U.S. senator from Iowa, will speak Feb. 8 on an overview of world hunger. Clark has a special interest in the hunger problem, having served on the Senate Agriculture and Foreign Relations committees, and as U.S. Coordinator of Refugee Affairs. The 3 p.m. workshop will examine the controversy over corporations selling infant formula to developing countries.

The noon lecture Feb. 9 will concern the role of the United States in world hunger. Dr. Martin McLaughlin, vice president of the Overseas Development Council in Washington, will speak. He is a former White House consultant on world hunger. The afternoon workshop will examine VISA, an organization that trains and places paraprofessionals in developing countries.

At noon Feb. 10 Edward Schuh, head of the university's agriculture and applied economics department, will speak on Minnesota agriculture and agri-business. Schuh was senior staff economist for President Ford's council of economic advisers, and he helped direct food shipments abroad for the Department of Agriculture. At the 3 p.m. workshop members of the Hunger Action Coalition will examine ways of helping the poor and hungry.

Feb. 11, Malcolm Purvis, university assistant dean for international agriculture programs, will describe the role the university can play to reduce world hunger. Purvis has been involved in university projects in Malaysia, Nigeria, Tunisia and Morocco. The workshop will look at the free food shelf system in the Twin Cities.

There will also be a program Feb. 11 through 13 on ways to design and export technology to help underdeveloped countries. The program will be held in the theater of the St. Paul Student Center.

For more information, contact Bernie Naughton at the St. Paul Student Center, (612) 373-1051.

-UNS-

(AO, 3, 10; B1; CO, 3, 10; DO, 3, 10)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 28, 1982

MTR
N47
8A4P

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

'ONCE UPON A MATTRESS'
NEW 'U' THEATRE PRODUCTION

(FOR IMMEDIATE RELEASE)

The humorous musical, "Once Upon a Mattress," will be staged by University Theatre Feb. 19 through March 7 in Rarig Center on the west bank of the University of Minnesota Minneapolis campus.

The play is set in a 15th-century mythical kingdom inhabited by knights, servants, wenches and ladies-in-waiting. Directing the play is university alumnus Peter Jablonski, who now lives in New York.

Jablonski, a native of Anoka, graduated from the university in 1969, and worked as an assistant to the late Gower Champion who directed the hit Broadway musical "42nd Street." Before moving to New York in 1972 he founded the Anoka Community Theatre, where he directed "Oklahoma," "Bye Bye Birdie," "The Music Man" and "Guys and Dolls."

"Once Upon a Mattress," is the musical version of the fairy tale "The Princess and the Pea." It opened on Broadway in 1959 and launched the career of Carol Burnett.

Louella St. Ville, a graduate student in acting, from Tulsa, Okla., plays the Queen, Prince Dauntless's overbearing mother who is searching for a suitable princess to marry her son. David Conner, a sophomore from Bloomington, plays Prince Dauntless.

Dona Werner, a graduate student in acting from Faribault, is cast as Princess Winnifred whose sensitivity is tested when she is asked to sleep on twenty mattresses placed atop a pea. Charlie Bachmann, senior from Bloomington, is cast as King Sextamus.

Both Werner and St. Ville are recipients of the Guthrie-Graduate School Fellowship and will intern in the Guthrie Theater's acting company next fall.

Vern Sutton, who teaches opera in the university's School of Music, is working with the cast as a vocal coach.

"Once Upon a Mattress" will be staged at 8 p.m. Thursdays, Fridays and Saturdays and at 3 p.m. Sundays in the Whiting Proscenium Theatre in Rarig Center.

Tickets are \$6 for the general public; \$5 for students and senior citizens. Group rates are available for 25 or more persons. Reservations may be made by calling 373-2337.

-UNS-

(AO,2,2e;B1,13;CO,2,2e)

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
JANUARY 29, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
Feb. 3-9

- Wed., Feb. 3--North Star Gallery: Paintings by Mirta Toledo. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 3--Goldstein Gallery: "A Stitch Here, A Stitch There: An International Sampling of Embroidery." 241 McNeal Hall. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through Feb. 15. Free.
- Wed., Feb. 3--Nash Gallery: Paintings by Jim Burpee and Dale R. Johnson; photographs by Daniel Barnes, Jennifer Kramer, David Madson and Dave Shippee. Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through Feb. 12. Free.
- Wed., Feb. 3--The Gallery: Drawings and sculpture by Dennis Grebner and friends. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 3--Coffman Union Gallery: "Cultural Norms and Forms" by U of M Studio Arts faculty and students, Gallery 1. "Black History Month Exhibit," Gallery 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through Feb. 24. Free.
- Wed., Feb. 3--University Gallery: "Young Minnesota Artists: A Juried Competition," through Feb. 7. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., Feb. 3--Black History Month film series: "A Colored Girl--Ntozake Shange" and "Lorraine Hansberry--The Black Experience in the Creation of Drama." Mississippi room (337), Coffman Union. Noon. Free.
- Wed., Feb. 3--Whole Coffeehouse: "Ancestor Energy," Black artists series concert with Louis Alemayehu. Poetry with sax and piano. Coffman Union. Noon. Free.
- Wed., Feb. 3--Chicano-Latino film series: "Battle of Ten Million" and "Requiem 29." Theater-lecture hall, Coffman Union. 12:30 and 7 p.m. Free.
- Wed., Feb. 3--Films and discussion: About 20 films by Debra Estes, Jack Pennington and Jon Peterson, local independent filmmakers. Gallery 2, Coffman Union. 2 p.m. Free.
- Wed., Feb. 3--University Film Society: "Ashram" (W. Germany, 1981). Bell Museum of Natural History aud. 7:30 and 9:15 p.m. \$3.
- Wed., Feb. 3--Open stage coffeehouse: For amateur musicians and performers. Terrace Cafe, St. Paul Student Center. 8:30 p.m. Free. Details at St. Paul Student Center, room 42.

(OVER)

- Thurs., Feb. 4--Dance and lecture: Wendy Morris and Georgia Stephens. Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Thurs., Feb. 4--Film: "Third Sister Liu" (China, 1961). 125 Willey Hall. 7:30 p.m. \$2.75.
- Thurs., Feb. 4--University Film Society: "Ashram" (W. Germany, 1981). Bell Museum of Natural History aud. 7:30 and 9:15 p.m. \$3.
- Thurs., Feb. 4--Dance performance: Trisha Brown Company. The Theatre, St. Paul Student Center. 8 p.m. Information: 373-1051.
- Thurs., Feb. 4--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3, \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Thurs., Feb. 4--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Thurs., Feb. 4--Dance band: Vitamin Q. North Star Ballroom, St. Paul Student Center. 9 p.m. Free.
- Fri., Feb. 5--Black History Month film series: "Africa's Gift." Mississippi room (337), Coffman Union. Noon. Free.
- Fri., Feb. 5--Film: "Caddyshack." Theater-lecture hall, Coffman Union. 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Fri., Feb. 5--Films: "Bus Number 3" (China, 1980), 7:30 p.m.; "Second Spring Mirroring the Moon" (China, 1979), 9:15 p.m. 125 Willey Hall. \$3.
- Fri., Feb. 5--University Film Society: "The Boat is Full" (Switzerland, 1981), 7:30 p.m.; "Who Shall Live, Who Shall Die" (USA, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Fri., Feb. 5--Bijou film: "Double Indemnity" (Billy Wilder, 1944). West Bank Union Aud. 8 p.m. \$1.50.
- Fri., Feb. 5--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3, \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Fri., Feb. 5--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Fri., Feb. 5--Disco dance: "Go Hawaiian Beach Dance." Prizes for best costume. Great Hall, Coffman Union. 8:30 to midnight. \$2.
- Sat., Feb. 6--Film: "Caddyshack." Theater-lecture hall, Coffman Union. 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sat., Feb. 6--Films: "Two Stage Sisters" (China, 1964), 7:30 p.m.; "Bus Number 3" (China, 1980), 9:15 p.m. 125 Willey Hall. \$3.

(MORE)

- Sat., Feb. 6--University Film Society: "Hester Street" (USA, 1975), 7:30 p.m.; "Free Voice of Labor: the Jewish Anarchists" (USA, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Sat., Feb. 6--Bijou film: "Double Indemnity" (Billy Wilder, 1944). West Bank Union Aud. 8 p.m. \$1.50.
- Sat., Feb. 6--Lower Level Theatre: "Squeeze the Trigger Gently" by Max Freedland, "The Birthday Hero" by Brian Dobseth, and "#46" by Louise Bormann. Performed by the Harmon Place Players. Nash Gallery, lower level, Willey Hall. 8 p.m. \$3, \$1.50 for U of M students with current fee statement. Reservations: 373-5058.
- Sat., Feb. 6--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 7--University Film Society: "Tevye" (USA, 1939), 2 p.m.; "Raindrops" (W. Germany, 1981) and "We Were German Jews" (USA, 1981), 7:30 p.m. Bell Museum of Natural History aud. Admission charge.
- Sun., Feb. 7--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 3 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 7--Film: "Caddyshack." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sun., Feb. 7--Film: "Song of Youth" (China, 1959). 125 Willey Hall. 7:30 p.m. \$2.75.
- Sun., Feb. 7--Dance performance: Trisha Brown Company. The Theatre, St. Paul Student Center. 8 p.m. Information: 373-1051.
- Mon., Feb. 8--Black History Month film series: "Voyage of the Hummingbird." Mississippi room (337), Coffman Union. Noon. Free.
- Mon., Feb. 8--Films: "Third Sister Liu" (China, 1961), 7 p.m.; "Two Stage Sisters" (China, 1964), 9:15 p.m. 125 Willey Hall. \$3.
- Mon., Feb. 8--University Film Society: "The Wooden Gun" (Israel, 1978). Bell Museum of Natural History aud. 7:30 and 9:15 p.m. \$2.75.
- Tues., Feb. 9--Film: "Rise and Fall of DDT." 320 Coffman Union. 12:15 p.m. Free.
- Tues., Feb. 9--Gangster film series: "Roaring Twenties." Theater-lecture hall, Coffman Union. 12:15 and 8 p.m. \$1.50, \$1 for U of M students with current fee statement.
- Tues., Feb.--Films: "Strong-Man Ferdinand" (W. Germany, 1976), 7:30 p.m.; "Neckties for the Olympics" (W. Germany, 1976), 9:15 p.m. Program Hall, West Bank Union. \$3.
- Tues., Feb. 9--University Film Society: "Bye-Bye Braverman" (USA, 1968), and "Private Lives" (USA, 1981). Bell Museum of Natural History aud. 7:30 p.m. \$3.

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7517
February 1, 1982

MTR
N47
9A4P

DISASTROUS JUPITER EFFECT
DEBUNKED BY ASTRONOMERS

By Jeanne Hanson
University News Service

The "Jupiter effect" -- the March 10 planetary alignment that supposedly will create a tidal bulge and sunspot storms on the sun, causing earthquakes in California and elsewhere -- is pure bull, according to University of Minnesota astronomer Vincent Icke.

The disasters are predicted in the 1974 book "The Jupiter Effect," by John Gribbin and Stephen Plagemann. As the March date approaches, the book is stirring up public concern and controversy, even though almost any astronomer can take apart its argument, said Kris Davidson, also professor of astronomy in the University of Minnesota's Institute of Technology.

The predicted scenario is this: On March 10 all the planets in the solar system will be lined up on the same side of the sun. This will create a tidal bulge on the sun, resulting in many sunspots -- massive magnetic storms on the sun. Solar particles from these sunspot storms will generate atmospheric effects on Earth significant enough to affect Earth's rotation. This change in Earth's spin will trigger earthquakes in California and elsewhere.

The authors work backwards from this feared result, discussing at length the less controversial dynamics of earthquakes. But sections of the book that attempt to establish the other parts of the argument are much more cursory.

Asked why scientists would write a book such as "The Jupiter Effect," Icke said, "There are only two reasons -- to make a lot of dough and to make a splash. It's a big ego trip for scientists to be noticed, but that's when the real nonsense can come out." He pointed out that one of the authors, Gribbin, retracted the theory in the June 1980, issue of Omni Magazine.

(MORE)

But before Gribbin recanted, astronomers were dismantling the theory piece by piece. First to be debunked was the line up itself. Contrary to the impression created by the book, the planets will not truly be aligned. Instead, on March 10 they will be in the same quadrant of the sky.

To understand this, picture the concentric planetary orbits as circles around the sun, then note 95 degrees of the 360 degrees of the circles. The planets will be scattered through this broad area of the sky -- hardly in an exact line.

Examined next was the tidal bulge. Just as the moon creates tides on Earth, the planets will, indeed, pull on the outer layers of the sun. But the bulge will be only one millimeter high. This is as though a person's skin "bulged" by becoming one atom thicker, Icke said. On a sun a million miles in diameter, the effect should be totally insignificant.

Tidal forces depend as much on the distance between the astronomical objects as on the mass of the planet creating the pull, Davidson said. So Venus, which is much closer to the sun, has as great an effect on the sun as does the much larger Jupiter. These two planets create a full 68 percent of the total tidal "bulge" predicted. But they have been truly aligned every eight months for millenia, without any effect on the sun or Earth.

And no disaster occurred in 1804 or 1901, when several of the planets were much closer to a true alignment, said Belgian astronomer Jean Meeus, in an article prepared for a University of Minnesota fact sheet.

In fact, Davidson added, the moon has a much greater effect on earth's tides than the sun or any of the planets could. The moon's role in creating earthquakes through raising "earthtides" is possible, although it has not been documented.

Next the sunspot connection was explored. These storms on the sun do fluctuate in number and intensity, but not in the cycles of planetary alignments. Instead, they peak in quite reliable 11-year cycles. This year should see only a moderate number of sunspots, down from the last peak in 1979, astronomers agree. The "evidence" in the book linking the planets to increased sunspot activity was based

(MORE)

on a very few years of correlation and is a statistical accident, Meeus wrote.

Then the effect of sunspots on Earth was examined. Solar wind from these storms does reach Earth, Icke said, creating well known effects such as northern lights and radio interference. But several specific studies have shown that sunspot activity is not correlated with earthquakes, Meeus showed. So, if 1982 brings any of the "devastating earthquakes" mentioned in the book's subtitle, the sun and other planets cannot be blamed, he wrote.

One impressive and very safe effect of the event is the visibility of five planets -- the most ever visible with the naked eye all at once -- just before sunrise in mid-March. Mercury and Venus will be low in the southeast sky; Mars, Jupiter and Saturn will lie just above the southwestern horizon.

-UNS-

(AO,4;B1,12;CO,4;DO,4;EO,1,4,4a;I4)

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FEBRUARY 3, 1982

MTR
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844P

NEWS PEOPLE: For further information
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PUNCHINELLO PLAYERS TO STAGE
'THE SHADOW BOX' AT U OF M

(FOR IMMEDIATE RELEASE)

"The Shadow Box," a play about individual confrontation with death, will be staged by Punchinello Players at the University of Minnesota Feb. 19 through March 6.

Michael Cristofer's play tells the story of Joe, Brian and Felicity, who are all dying. The story deals with how they and their loved ones cope with their emotions and reactions.

Thom Pinault of Minneapolis will play Joe. He played Dr. Chumley in the Punchinello Players' production of "Harvey" last year. Tim Schacker of St. Paul will play Brian, and Melinda Kordich, a sophomore from Prior Lake, will play Felicity.

Diane Lorvig of St. Paul, who directed the Punchinello Players' production of "The Hot L Baltimore" last year, will direct.

"The Shadow Box" will be staged at 8 p.m. for the three weekends between Feb. 19 and March 6 in North Hall on the St. Paul campus. Tickets are \$3 and MAT vouchers will be accepted. Reservations may be made by calling 373-1570.

-UNS-

(AO,2,2e;EL,13;CO,2,2e)

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FEBRUARY 3, 1982

MTR
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9A4P

NEWS PEOPLE: For further information
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MEMORIAL SET FOR FORMER
U OF M PRESIDENT MOOS

(FOR IMMEDIATE RELEASE)

A public memorial service for former University of Minnesota President Malcolm Moos will be held Feb. 12 at 1 p.m. in Northrop Auditorium on the Minneapolis campus of the university.

Moos was found dead of an apparent heart attack Jan. 28 in his cabin on Ten Mile Lake in northern Minnesota. He was 65. Moos, who was chief speech writer for President Dwight Eisenhower, served as university president from 1967 to 1974.

The memorial service will include tributes from Malcolm Moos Jr., a student at the university's medical school; President C. Peter Magrath; former regents Elmer L. Andersen and Lester Malkerson; and Moos's personal friend Paul Cashman, a professor of speech-communication and a vice president for student affairs under Moos. Wenda Moore, chairman of the university's Board of Regents, will preside at the memorial service. The university's concert band will perform.

-UNS-

(AO,1;B1,10;CO,1)

UNIVERSITY OF MINNESOTA
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FEBRUARY 4, 1982

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NEWS PEOPLE: For further information
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'U' THEATRE ANNOUNCES
AUDITIONS FOR TWO PLAYS

(FOR IMMEDIATE RELEASE)

University Theatre will hold open auditions Feb. 22 through 24 for two plays it will stage this spring at the University of Minnesota.

The two one-act plays scheduled for production together in April are "The Reconstruction of Dossie Ree Hemphill" by Endesha Ida Mae Holland and "The Death of Bessie Smith" by Edward Albee. Roles call for four older black women, three black men, two white women and two white men.

Persons interested in trying out for either play should prepare a speech. Scripts and selected speeches are available in the theater arts department office at 208 Middlebrook Hall on the west bank of the Minneapolis campus.

The auditions are scheduled for 7 to 10 p.m. Feb. 22 through 24 in Rarig Center, 21st Avenue and 4th Street South.

Holland's play explores the evolution of an American black family in the deep South in about 1940. The focus of Albee's play is white bigotry toward blacks during the 1930s.

Detailed information may be obtained by calling Elton Wolfe at 376-3306.

-UNS-

(AO,2,2e;Bl,13;CO,2,2e)

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U OF M PRESIDENT WARNS
OF TECHNOLOGY GAP

(FOR IMMEDIATE RELEASE)

Cuts in federal budgets that support research are short-sighted and may result in a long-term gap in American know-how, University of Minnesota President C. Peter Magrath told members of a Congressional committee in Washington today (Thursday).

Despite the fact that advances in science and technology have been given much attention in the mass media, "the blunt fact is that these presentations are heralding research and development that is several years old," Magrath said.

Magrath testified before the House Committee on Science and Technology, the group that sets authorization for the National Science Foundation, the National Aeronautics and Space Administration and other non-military science programs. The committee has been conducting a series of hearings on financial troubles for U.S. science and technology.

"We are bragging about our past in science and technology while our present and future are in serious doubt," Magrath said. U.S. expenditures on research are now being compared publicly with research support in Germany, Japan and the Soviet Union, he said, but the cue has not been taken.

Magrath warned that failure to support basic research could lead this country into a quiet "cultural revolution" similar to that experienced by China where "science ... was a disaster area, and for years they failed even to keep up with other scientific activities around the world."

It is unlikely that individual states will take over for the federal government in paying for research programs, Magrath said, citing Minnesota as a state whose severe difficulties have already meant cutbacks in research institutions. "We are now

(MORE)

dismantling programs and services that our state is going to regret losing, after it's too late," he said.

Passing responsibility for research support onto individual states will also mean a shift from broad research programs that cut across fields to a fragmented, gee-whiz approach to research, he said.

"Shifting research sponsorship from the federal government to the private sector and the state governments almost inevitably will lead to an over emphasis on applied research with immediate economic development implications and less communication among the nation's researchers," he said.

Even at the federal level, however, the tendency to support quick and dramatic projects has grown, he said. Research in the social and behavioral sciences and the humanities has lost financial support because "these are the areas where you get the flak from constituents who wonder why in the world their taxes are being spent for projects they see as flaky," he said.

But research in these areas may provide answers to some of the most severe problems the country faces, including the problems of urban America, economic troubles, productivity, family issues and slipping quality of life.

Ignorance of the social sciences kept the United States in the disastrous Southeast Asian conflict, he said. "We are now watching huge investments in military hard science, and at the same time, we are struggling to keep an already inadequate budget for international education efforts that just might eliminate or reduce the need for all that hardware," he said.

One of the biggest problems facing the country is the general economic muddle, Magrath said. "Even those most directly identified with it admit that we know very little from economic or behavioral research, and the characterization of it as a 'riverboat gamble' has summed it up well. We don't even know enough to understand the odds," he said.

Magrath urged the committee members to look beyond pressure from constituents to the long-term needs of the country. "If it works out that America loses its scientific strength, our constituents will be unforgiving and they will be right,"

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
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Minneapolis, Minnesota 55455
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February 5, 1982

OLD LOVE LETTERS READ LIKE
VALENTINES FROM THE PAST

By Jeanne Hanson
University News Service

In 1847, Aiton, a young seminarian, wrote to his beloved Nancy far away, "Light produces great results, yet no man can satisfactorily tell what light is. So it is with your cheerful presence ..." After seminary, and just before he began a missionary trip to the Indians in Minnesota, they were married.

Reading 19th century love letters is a research interest of Paul Rosenblatt, a family social science professor at the University of Minnesota, who wants to know how people express and negotiate their relationship during separations before and during marriage. He is finding that some of the old letters read like valentines from the past.

So far, Rosenblatt has read close to 300 letters written from the Minnesota frontier to lovers elsewhere between 1845 and 1863. The letter sets are among the collections of the Minnesota Historical Society, which also has a selection of valentines, from florid "true love" declarations in the mid-1800s and on, to humorous cards from the 1880s to the present. Some are featured in the winter issue of Minnesota History magazine.

The rhetoric of love in the letters hasn't changed much, Rosenblatt said, though death, sexuality and spirituality are expressed a bit differently. The language spoke of moon and flowers. "The silver moon is shining through the trees into my face as I look at it thinking of you. If you were only coming tonight how glad I should be ...," William wrote to Abbie in 1862. They were married but were separated during the Sioux war, when destruction of their home drove Abbie temporarily back to Massachusetts with their children. They were later reunited.

(MORE)

And Aiton, who was studying to be a missionary to Minnesota Indians, wrote in 1847 to Nancy, his future wife, "When I think that my long delay apparently says that I love you less, it makes my heart sad, and I feel it is not so, in token of which I send you the first blossom of my flowering Almond."

Since the death rate was high -- even among adults -- in the 19th century, death forms a background to many of the letters, Rosenblatt said. Nineteenth century Christianity taught that it was a defiance of God to ever assume life would be long and that preparing for salvation was a daily duty. "May the Lord ever keep you safely," a common sentiment in the letters, was no idle thought.

In the letters Rosenblatt has read no lover has died, although descriptions of the deaths of relatives are common. Relationships ending in death before marriage and children may not emerge because the letters would probably not have been saved, Rosenblatt said.

Sexual feelings were expressed less often and always covertly in the letters, Rosenblatt said. William wrote to his wife, "But there is one thing I must do whether I can afford it or not and that is to live with you this winter." Several of his letters alternately urged her to return to the frontier, where Indians still threatened, then apologized for asking her to risk so much.

Love is often expressed religiously in the letters and there is a certain formality. One letter writer who worried about her "future station as a wife" signed her name as an initial and last name.

"Lovers quarrels" were often tense, though usually tactful, Rosenblatt said. Apologies are ample. One letter writer wrote, "You dear soul, I'm so sorry. I didn't mean to: never'll do so again as long as I live." With separations up to 1,000 miles and up to two years, such problems took long to straighten out. Mail carriers on horseback and friends in stagecoaches, riverboats and railroads delivered the letters.

Between quarrels and protestations, the letter writers discussed money, home, furniture, in-laws and their health. Children were rarely mentioned, and neither was there discussion of their relationship itself, Rosenblatt said.

Reading the love letters, most of which are in long sets, absorbs him, he said. Some are saddening. Others make him angry, as when one woman falls in love with a man who truly seems manic-depressive. Still others make him envious. "The joy of the letters" is one reason I began the project, he said.

-UNS-

(AO,6,13;BI,16;CO,6,13;DO,6,13;EO,1,6,13)

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FEBRUARY 5, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
Feb. 10-16

- Wed., Feb. 10--North Star Gallery: Paintings by Mirta Toledo. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 10--Goldstein Gallery: "A Stitch Here, A Stitch There: An International Sampling of Embroidery." 241 McNeal Hall. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through Feb. 15. Free.
- Wed., Feb. 10--Nash Gallery: Paintings by Jim Burpee and Dale R. Johnson; photographs by Daniel Barnes, Jennifer Kramer, David Madson and Dave Shippee. "Minnesota-Wisconsin Exchange" exhibit. Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through Feb. 12. Free.
- Wed., Feb. 10--The Gallery: Drawings and sculpture by Dennis Grebner and friends. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 10--Coffman Union Gallery: "Cultural Norms and Forms" by U of M Studio Arts faculty and students, Gallery 1. "Black History Month Exhibit," Gallery 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through Feb. 24. Free.
- Wed., Feb. 10--Black History Month film series: "Black Shadow on a Silver Screen." 337 Coffman Union. Noon. Free.
- Wed., Feb. 10--Whole Coffeehouse: Black folk tales performed by the Black Theatre Alliance. Coffman Union. Noon. Free.
- Wed., Feb. 10--University Film Society: "Summer Showers" (Brazil, 1977), 7:30 p.m.; "Bye Bye Brazil" (Brazil, 1980), 9:15 p.m. Bell Museum of Natural History aud. \$3.
- Thurs., Feb. 11--Dance and lecture: Maria Cheng and Judith Mirus. Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Thurs., Feb. 11--University Film Society: "Land in Anguish" (Brazil, 1966), 7:30 p.m.; "Bye Bye Brazil" (Brazil, 1980), 9:30 p.m. Bell Museum of Natural History aud. \$2.50.
- Thurs., Feb. 11--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Fri., Feb. 12--Black History Month film series: "Amos and Andy," "Protest: Black Power" and "Black Has Always Been Beautiful." 337 Coffman Union. Noon. Free.
- Fri., Feb. 12--University Film Society: "Gaijin" (Brazil, 1980). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.

(OVER)

- Fri., Feb. 12--Bijou film: "The Emperor Waltz" (Billy Wilder, 1948). West Bank Union aud. (east end, lower concourse). 8 p.m. \$1.50.
- Fri., Feb. 12--Concert: Jim Post with Randy Sabien. The Theatre, St. Paul Student Center. 8 p.m. \$3.50, \$2.50 for U of M students with current fee statement. Tickets at St. Paul Student Center, room 42.
- Fri., Feb. 12--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sat., Feb. 13--University Film Society: "Gaijin" (Brazil, 1980). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Sat., Feb. 13--Bijou film: "Safety Last" (1923). West Bank Union aud. (east end, lower concourse). 8 p.m. \$1.50.
- Sat., Feb. 13--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 14--University Theatre: "Poor Murderer" by Pavel Kohout. Arena Theatre, Rarig Center. 3 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 14--University Film Society: "Gaijin" (Brazil, 1980). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Mon., Feb. 15--University Film Society: "Gaijin" (Brazil, 1980). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Tues., Feb. 16--Black History Month film series: "Time for Burning." 337 Coffman Union. Noon. Free.
- Tues., Feb. 16--University Film Society: "Rising Star" (Brazil, 1974), 7:30 p.m.; "A Lesson in Love" (Brazil, 1975), 9:15 p.m. Bell Museum of Natural History aud. \$3.

-UNS-

(AO;BI;F2)

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FEBRUARY 5, 1982

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'BEING FAT IN AMERICA'
TOPIC OF U OF M CONFERENCE

(FOR IMMEDIATE RELEASE)

Fat. Obese. Overweight. Whatever the label, the problem in America is a major health concern. At least 25 percent of all children are obese and about 80 percent of overweight children become overweight adults.

The University of Minnesota department of continuing nursing education is sponsoring a March 13 conference which will explore the what, when, how and why of the "fat cycle."

"Being Fat in America" is open to both health professionals and consumers for a \$43 fee. The program will be held at the Earle Brown Continuing Education Center on the St. Paul campus.

For more information, contact the department of continuing nursing education at (612) 376-1428.

-UNS-

(AO, 3, 27, 29; B1, 4; CO, 3, 27, 29)

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FEBRUARY 5, 1982

MTR
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9A4P

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MEMO TO NEWS PEOPLE

Plans for phasing out some academic programs at the University of Minnesota, and a new recommendation on tuition, will be discussed by the Board of Regents Thursday and Friday, Feb. 11 and 12.

Cuts in Twin Cities campus academic programs, coordinate campus academic programs and support units, and in state specials -- a list of projects and programs that are funded separately -- will be outlined for the regents Friday at 8:30 a.m. at a meeting of the committee of the whole in 238 Morrill Hall. These cuts and the proposed emergency tuition increase are being made to cope with the loss of \$25.6 million in state funds from the university's 1981-83 appropriation.

At last month's meeting, the board heard details of cuts being made in Twin Cities campus service and support units and a recommendation for a 13 percent tuition increase that would begin in the summer and continue until the end of the biennium. A revised tuition plan will be presented at the Friday morning meeting, along with a description of effects a sizeable tuition increase can be expected to have on enrollment.

A list of meetings and possibly newsworthy agenda items follows:

Educational policy and long-range planning committee, 1:30 p.m. Thursday, 300 Morrill Hall. First public discussion of priorities in academic programs, with a list of 15 to 25 programs on the Twin Cities campus that may be reduced, reorganized, or eliminated. The priorities are the result of a long-range planning process that has been under way for more than a year.

Student concerns committee, 1:30 p.m. Thursday, 238 Morrill Hall. Student leaders from all campuses will present their concerns to the board.

(OVER)

Faculty and staff affairs, 3 p.m. Thursday, 238 Morrill Hall. Discussion of a plan to encourage and allow phased or early retirement for tenured faculty in programs that are scheduled to shrink or close. Information on a proposed policy governing consulting and outside affiliations by faculty members.

Physical plant and investments, 3 p.m. Thursday, 300 Morrill Hall.

Committee of the whole, 8:30 a.m. Friday, 238 Morrill Hall. (In order of discussion). Impact of tuition increases on enrollment, an update on the university's fiscal situation with a new recommendation on tuition, and a detailed look at academic cuts on each campus and cuts in the state specials. The discussion will include immediate steps that are being taken to cope with the current fiscal situation, and long-term steps that were already part of the long-range plan to meet expected enrollment declines.

-UNS-

(AO,1;BI;CO,1)

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UNIVERSITY OF MINNESOTA
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FEBRUARY 8, 1982

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U OF M REGENTS TO HEAR PLANS
FOR REORGANIZATION, REDUCTIONS

(FOR IMMEDIATE RELEASE)

Between 15 and 25 academic programs slated for reduction, reorganization or elimination will be reviewed by the University of Minnesota regents at their meeting Feb. 11 and 12.

The regents are reviewing the plan now because the recent state budget shortfall meant a \$25.6 million cut in the university's appropriation. Academic programs will absorb \$3.5 million of that cut. But the timing is the only real connection to current budget problems, university administrators say. "In general, we're trying to follow existing plans for academic reorganization, but we're moving more quickly than we otherwise would have done," said Nils Hasselmo, university vice president for administration and planning.

President C. Peter Magrath established a planning council in 1975 to examine the long-range goals of the university. Each academic unit was required to submit statements of goals and priorities in June 1979. The motivation for such planning was the forecast of declining enrollments in universities beginning in the mid-1980s. The bulk of the reorganization was aimed for that time. Instead, the program priorities the regents will review this month will be the basis of the 1982-84 university budget.

Because of the current budget crunch, each college at the university had to revise its plan to absorb up to a 5 percent retrenchment by mid-1984. The plans must also show a 10 percent shift in budgets from low to high priority programs. This doesn't mean all colleges actually will reorganize to this extent. There hasn't even been a savings figure attached to the plans.

"We're trying not to put specific price tags on program changes," Hasselmo said. "We're trying to look at what academic changes will improve the university before we see how the changes fit in with the need to trim the budget." Budgeting conferences with the colleges will be scheduled after the February regents meeting.

The College of Liberal Arts on the Twin Cities campus is the largest college -- more than 16,900 students are enrolled -- and may experience the most changes. "Liberal arts is the college that responds the most to changing social needs," Hasselmo said. "It needs more continuous change than other colleges."

(MORE)

During a period of tremendous growth in the 1960s and '70s, CLA grew to 42 departments; the Big Ten average is closer to 25. Some of the new departments were a response to the new ethnic or sexual awareness: Afro-American studies, Chicano studies, American Indian studies, women's studies.

"We've had a decade of seeing how these programs work. We know the college won't grow in the '80s, and may decrease a bit in size. Yet the demand for traditional programs remains high," said Roger Benjamin, associate dean of CLA. "Everything points to blurring the lines between these small specialty programs and more traditional programs."

For example, a professor of Afro-American studies might be transferred to the history or political science department. The professor would continue to teach Afro-American courses, but his home base would change. In the new department the professor would have a larger group of colleagues with whom to share ideas and access to a graduate program for his student advisees. Most professors find research more productive when they have the aid of graduate students.

"What really distinguishes the university's liberal arts college from the good small colleges in the state is graduate education and research-based teaching," Benjamin said. "We're trying to emphasize that by consolidating programs without graduate education with more traditional departments."

The consolidation -- the shift from 42 to about 30 departments -- would not mean one-quarter of the college would disappear, Benjamin said. In many cases professors would shift to related departments. Major degrees in those subjects would generally continue to be offered, except in departments that will be phased out.

The Library School may close because the college can't afford to hire professors and buy equipment to teach the new sophisticated ways of keeping records by computer. However, if the school can find ways to share computers and instruction with other university colleges -- perhaps with the Institute of Technology -- the school might yet be saved. Otherwise Minnesota library science students would probably go to the top-rated school at the University of Wisconsin under a reciprocity agreement which would allow them to attend at a lower in-state tuition rate.

By mid-1984 CLA expects to have 50 fewer faculty members. Thirty positions will be saved by replacing only half the 20 professors who retire in a year and another 20 will come from programs being curtailed or cut back.

At the February meeting the regents will hear plans to provide incentives for early retirement and part-time status. Professors in departments being phased out would be offered a payment for breaking their tenure contract. But no tenured professor would be fired or forced to retire.

(MORE)

"We're an aging faculty," Benjamin said. "New ideas are the province of the young, but about 84 percent of the liberal arts faculty is tenured." Part of the money saved by the 50 openings will be spent to exchange new ideas by supplying visiting professorships, conferences and travel funds.

One result of the immediate need for budget cuts is that only a small portion of the savings will be available to develop other programs. Most university colleges have plans that call for improving programs that are already strong. But it appears there will be more emphasis on cutting than building in the next few years.

"We've been planning a reallocation for several years, but it would not be happening now without the state financial problem," Benjamin said. "We're trying to speed up the process and make changes in three years that were originally planned for five to six years. But by following our plan for a leaner liberal arts college -- even if the changes come faster than we would like -- I think we have a shot at becoming a great liberal arts college."

The College of Biological Sciences is particularly strong in molecular and cellular biology. But it also has a strong ecology department, a field that studies whole organisms. "We cannot be all things to all fields of biology," said Dean Richard Caldecott. "We've designed our reallocation to improve our strengths."

The regents will hear about that college's plans to reduce emphasis on vertebrate natural history in favor of building programs in behavioral biology and human genetics. The botany department will shift from plant taxonomy to more emphasis on molecular biology and plant biomass energy projects.

Many of the biology programs slated for development involve sharing resources with other colleges. A plant genetics program would be administered by the College of Agriculture. The program in human genetics would team the biology faculty with professors in the Medical School, the School of Dentistry, CLA and the College of Education.

"Back in the 1960s department and college walls were really thick," Caldecott said. "Now it's fairly easy to move back and forth, sharing faculty for programs. There will be a lot of sharing among university colleges in the 1980s."

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FEBRUARY 8, 1982

NEWS PEOPLE: For further information
contact JEANNE HANSON, (612) 373-7517

JAPANESE RESEARCHERS NAMED CDC
COMPUTER PROFESSORS AT U OF M

(FOR IMMEDIATE RELEASE)

Two Japanese educators at the top of their fields in computer vision and robotics will share the first Visiting Control Data Corporation Professor of Computer Science professorship at the University of Minnesota spring quarter.

Osaka University's Sabura Tsuji, professor of control engineering, and Masahiko Yachida, research fellow in control engineering, will jointly teach a computer science graduate level course in robotics and advanced automation, as well as offer a seminar for graduate students and two public lectures. The seminar will deal with understanding of dynamic images, while the lectures will cover Japanese research and development projects in artificial intelligence related fields and flexible automation and industrial vision systems.

A \$300,000 Control Data grant endowed this visiting professorship, with the specification that it involve individuals from education or industry from the United States or a foreign country. Each year the visiting professorship will bring experts from a variety of fields to interact with and pass on information to the university's Institute of Technology computer science department's graduate students and faculty.

Tsuji, who is called the best vision researcher in Japan, is noted for his work on texture, line-drawing analyses and vision applications. While at the Electro-technical Laboratory (ETL) of Japan's Ministry of International Trade and Industry Tsuji developed a hand-eye system using visual feedback, was the first to use color for robot vision and helped develop a range finder that employs a method today considered the standard technique for range measurement. He was at ETL from 1955 to 1970 as a senior research scientist, chief of the systems research section and chief

(MORE)

of the bionics section, working on hybrid computer systems, optimal control and bionics, and as a leader of the Intelligent Robot Project.

Since 1971 Tsuji has been at Osaka University engaged in teaching and research on artificial intelligence. There he and a student devised a method for segmenting a scene with textures that is now a widely-used technique in image segmentation.

Yachida was involved in the intelligent automation project at ETL from 1969 to 1970. In 1971 he joined a research group at Osaka University where he works on robotics, computer vision and image processing. From 1973 to 1974 he was a visiting research associate at the Coordinated Science Laboratory of the University of Illinois.

Their graduate level course in robotics and advanced automation will be offered for four credits during the spring quarter. Course enrollment is limited to 40 and is also open to adult specials. Undergraduates are also eligible but only through permission of their advisers.

The dates and times for the public lectures, part of the computer science department's regular spring colloquium series, will be announced later.

-UNS-

(A12a;B1;C4d,12a;E4d)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 12, 1982

MTR
11471
8A-1P

NEWS PEOPLE: For further information
contact ELIZABETH PETRANGELO, (612) 373-7510

U OF M REGENTS APPROVE
SUMMER TUITION HIKE

(FOR IMMEDIATE RELEASE)

A 15 percent surcharge will be tacked onto tuition charged University of Minnesota students this summer as part of a package meant to make up for a \$26.6 million hole in the university's 1981-83 budget, the board of regents decided today.

However, the board laid over until next month's meeting a decision on whether to extend the 15 percent surcharge through the rest of the biennium on top of an already planned for 10 percent increase in tuition that would take effect in the fall.

The surcharge is part of a plan that also includes \$6.9 million in cuts to support units on the Twin Cities campuses, \$3.5 million in Twin Cities academic program cuts, \$2.5 million in cuts from a list of special state appropriations, and \$1.3 from academic programs and support units at the university's four coordinate campuses.

University president C. Peter Magrath told the board that without a temporary tuition increase of 15 percent over the course of the biennium, academic programs would have to be "dismantled" still further. "There are no choices in my opinion," he said.

Several regents said they had not expected to take a vote on the surcharge issue until next month and were not comfortable doing so without looking at other options. But Magrath said there are few options available beyond new, deeper cuts in academic programs.

"If we don't deal with part of this problem with a tuition increase," he said, "instead of reduction of some programs, we'll be talking about elimination of programs."

St. Paul regent Mary Schertler said she intended to vote against a biennium-long 15 percent surcharge in light of the fact that a regular 10 percent tuition

(MORE)

increase is already contemplated for the fall. The cumulative effect of both increases would be too great for many students to cope with, she said.

"I would find it very sad if that was the reason a student could not go to this system," she said.

At last month's meeting, the administration recommended a 13 percent tuition surcharge, but that figure was based on a "best guess" that the cuts in the university's budget would not exceed \$20 million. Since that meeting, the legislature approved a final budget cutting bill to deal with the state's fiscal emergency, a bill that eliminated \$19.6 million from the base and \$6 million from the appropriation earmarked for salaries.

Rose Johnson, a student representative to the board, said students are opposed to the added surcharge because it would go to support staff salaries. "Students simply can't afford that increase, and we oppose a further increase to pay for faculty salary increases," she said.

Magrath argued that since 78 percent of costs at the university are people costs, at some point all sectors end up paying for salaries.

"As much as each of us would like to say that there are areas that could be excluded from this process, that's just not true," said Wenda Moore, chairman of the board. "The students are going to have to participate as well as the faculty and civil service and all of us."

Minneapolis regent David Lebedoff said that cuts in programs have been so deep already there is no choice but to raise tuition. "It is not true that we serve the students only by keeping tuition down," he said. "We also serve them by keeping quality up. We're getting too close to endangering the quality that we offer students."

The approval of the 15 percent surcharge for summer will allow printing of summer bulletins to proceed and students to make their summer plans accordingly but will not tie the regents' hands on the full biennium. Discussion on eventual increases for the rest of 1981-83 will occur at next month's board meeting.

(MORE)

Also at the meeting the regents got their first look at a draft long-range plan that would reduce, reorganize or eliminate about 100 university programs, or about 5 percent of the total.

In a departure from the usual process, the document was given to the regents at the same time it was distributed to the rest of the university community. The plan will be discussed widely within the university over the next few months, and will be the basis of the 1982-84 budgets, Kenneth Keller, vice president for academic affairs, said.

Under the plan, several programs would be eliminated over the next several years, including the Library School, South Asian studies, the pharmacy baccalaureate program, and undergraduate metallurgy on the Twin Cities campus and, on the Duluth campus, home economics, the geography department, and the history master's program.

The list of programs to be reduced on the Twin Cities campus includes agricultural engineering, dental hygiene, physical education, educational administration, Afro-American and African studies, industrial relations, East Asian studies, and physical chemistry. Reductions at other campuses would include studio arts, English literature and sociology at Duluth, student services and the library at Morris, rural communications and student services at Crookston, and food industry and technology and international programs at Waseca.

Keller said that tenured faculty members whose jobs are affected by the cuts and reductions will be given several options from which to choose, including early retirement, phased retirement and shifts to other units within the university. Each of the options is voluntary, Keller said.

While the plan is only a draft and will be discussed in detail over the next few months, Keller said, the areas pinpointed for change are likely to remain the areas affected. "If we do not remove one of these programs, we must remove another," he said.

Since the list was arrived at after each program was analyzed for such things as quality and demand, shifts in the list would mean cutting higher priority programs, he said.

-UNS-

(AO,1;B1;CO,1;E15)

MTR
N47
9A4P

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 12, 1982

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

TWO ARCHITECTURAL EXHIBITS
ON DISPLAY AT 'U' GALLERY

(FOR IMMEDIATE RELEASE)

A photograph of the IDS Center in downtown Minneapolis is among those on display in two architectural exhibitions at University Gallery in Northrop Auditorium on the University of Minnesota Minneapolis campus.

"Beyond the Box" explores the work done in the 1970s by Philip Johnson of New York and John Burgee of Chicago. "Keck and Keck: Architects" covers the work of a Chicago firm. The exhibitions will run through March 14.

Photographed by Richard Payne, "Beyond the Box" includes photos of about 20 projects including the controversial American Telephone and Telegraph Building in New York City and the sculptural Art Museum of South Texas in Corpus Christi.

Johnson, who teamed with Burgee to produce a series of skyscrapers in the early 1970s, is a leading interpreter of the modern international style developed by Ludwig Mies van der Rohe. The exhibition includes black and white and color photographs of both exteriors and interiors.

Brothers George and William Keck have designed single-family residences, apartment buildings and public buildings since 1926. The firm experimented with exterior Venetian blinds and solar eaves during the mid-1930s. Photomurals and original drawings of about 35 projects are on display at the gallery.

Gallery hours are 11 a.m. to 4 p.m. Monday, Wednesdays and Fridays; 11 a.m. to 8 p.m. Tuesdays and Thursdays; and 2 to 5 p.m. Sundays. The gallery is open to the public at no charge.

-UNS-

(AO,2,2a;B1;CO,2,2a)

INTR
1-17
9-11 p

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
FEBRUARY 12, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
Feb. 17-23

- Wed., Feb. 17--North Star Gallery: Paintings by Mirta Toledo. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 17--Nash Gallery: Mixed media by Susan Barry, Nancy Dahlof, Susan Jensen, Elizabeth La Veryne, Uche Oleke, Peder Thompson and Kathleen Zuckerman. Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 17--The Gallery: Drawings and sculpture by Dennis Grebner and friends. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 17--Coffman Union Gallery: "Cultural Norms and Forms" by U of M Studio Arts faculty and students, Gallery 1. "Black History Month Exhibit," Gallery 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through Feb. 24. Free.
- Wed., Feb. 17--University Gallery: "Beyond the Box: Architecture by Philip Johnson and John Burgee, Photographed by Richard Payne" and "Keck & Keck: Architects," through March 14. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., Feb. 17--Black History Month film series: "If There Weren't Any Blacks, You'd Have to Invent Them." 337 Coffman Union. Noon. Free.
- Wed., Feb. 17--Whole Coffeehouse: Doris Hines, jazz vocalist. Coffman Union. Noon. Free.
- Wed., Feb. 17--University Film Society: "Sao Bernardo" (Brazil, 1972), 7:30 p.m.; "Summer Showers" (Brazil, 1977), 9:15 p.m. Bell Museum of Natural History aud. \$3.
- Thurs., Feb. 18--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Fri., Feb. 19--Black History Month film series: "I Shall Moulder Before I Shall Be Taken." 337 Coffman Union. Noon. Free.
- Fri., Feb. 19--Film: "Arthur." Theater-lecture hall, Coffman Union. 1:30, 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Fri., Feb. 19--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.

(OVER)

- Fri., Feb. 19--Bijou film: "One, Two, Three" (Billy Wilder, 1961). West Bank Union aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Fri., Feb. 19--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Fri., Feb. 19--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$6, \$5 for students and senior citizens. Reservations: 373-2337.
- Fri., Feb. 19--Whole Coffeehouse: "Sweet Taste of Afrika," African popular music and American funk. Coffman Union. 8 p.m. \$3. \$2 for U of M students with current fee statement.
- Sat., Feb. 20--Film: "Arthur." Theater-lecture hall, Coffman Union. 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sat., Feb. 20--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Sat., Feb. 20--Bijou films: "Remember When," "Fiddle Sticks," "Soldier Man" and "Feet of Mud" (1924-26). West Bank Union aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Sat., Feb. 20--Concert: The Replacements, rock. 125 Willey Hall. 8 p.m. \$2.
- Sat., Feb. 20--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Sat., Feb. 20--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$6, \$5 for students and senior citizens. Reservations: 373-2337.
- Sat., Feb. 20--Whole Coffeehouse: "Sweet Taste of Afrika," African popular music and American funk. Coffman Union. 8 p.m. \$3, \$2 for U of M students with current fee statement.
- Sun., Feb. 21--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 3 p.m. \$6, \$5 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 21--Film: "Arthur." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50. \$1.50 for U of M students with current fee statement.
- Sun., Feb. 21--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Mon., Feb. 22--Black History Month film series: "Right on/Be Free" and "From These Roots." 337 Coffman Union. Noon. Free.
- Mon., Feb. 22--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.

-UNS-

(AO;B1;F2)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7512
February 19, 1982

MTR
N47
3A4P

PUPPETS SHOW CHILDREN
HOW TO COPE WITH STRESS

By Paul Dienhart
University News Service

At first glance, it appears to be a cross between a Muppet movie and a television soap opera: puppets portray a drunken father, a tearful daughter and a wise grandfather.

In fact, it is a video play that teaches children how to cope with the stress of having an alcoholic parent.

"Nobody can make you feel bad or upset unless you want to feel that way. You make yourself upset by the way you think," says the grandfather, who speaks in the voice of professor Wentworth Quast, a child psychologist in the University of Minnesota School of Public Health. "The funny thing is, the puppet looks just like my 93-year-old father," Quast said.

Two years ago Quast got the idea of making a videotape to teach children the principles of rational emotive training, a technique for coping with stress devised by psychologist Albert Ellis. Ellis assumes that what we feel depends on what we think. "It's not events that make us angry, unhappy, afraid or guilty, it's how we perceive these events," Quast said. "We upset ourselves."

While trying to find the best way to get these ideas across to children as young as 5 or 6, Quast chanced upon Paul Eide, a filmmaker in the university's Media Resources. Eide was a natural collaborator for the project: he is an experienced puppet maker and puppeteer.

"When I began to work on the project I thought I must test out this theory," Eide said. "When I'm feeling irritated I stop to see what's actually bothering me. It's usually something as horrible as itchy long underwear. It's like what Mark Twain once said. 'My life is filled with terrible misfortunes, most of which never happened.'"

(MORE)

Eide made six puppets, built the stage and directed the camera and puppeteering for a scenario written by Quast and psychology graduate student Josh Martin. The resulting 20-minute videotape, "Knowing, Feeling, Growing," has two parts. The first half teaches children how to be less upset by stress in general. The second half concentrates on the stress of having an alcoholic parent.

In one scene, after the father returns home drunk, the daughter wonders if it is her fault that her father drinks and what she should be doing to make her father change. Her grandfather helps her realize that her father won't change until he wants to and that she isn't responsible for his drinking. Instead of moping, she and her brother decide to organize a trip to the zoo, where their father was supposed to take them.

"The film talks about thoughts as harmful or helpful," Quast said. "Harmful thoughts are often unrealistic -- thoughts like 'Adults should always be perfect' or 'I should always get what I want.' If children are able to identify the harmful thoughts behind their hurt feelings, they're in a position to substitute helpful thoughts.

"If you're very upset when you make a mistake, maybe it's because you expect yourself to be perfect. It would be better to realize that making mistakes is part of being a person, then do something to avoid making the same mistake in the future."

The video play introduces four to eight classroom sessions on the coping method. Quast and Martin have written a teachers' manual that outlines discussion and homework in identifying feelings, discovering the thoughts behind those feelings and changing faulty thinking. Quast has seen young children not only master this self-counseling technique, but teach it to their families.

Quast said he has gotten good responses from sneak previews of the video play in the Robbinsdale School System.

The techniques will work for any stressful situation, Quast said. He decided to concentrate on children of alcoholic parents because there is evidence that they suffer from stress that can lead them to become emotionally disturbed or chemically dependent. It has long been the impression that these children are a high-risk group for problems, and Quast is the first to confirm this with scientific data in a paper he has submitted for publication.

Personality inventories of 50 children of alcoholic parents being treated at the Hazelden treatment center in Center City, Minn., show "significant psychological, social and emotional problems," Quast found. The younger children in the study seemed to be the most adversely affected. Quast followed that study by training 18 of the children to use rational emotive techniques.

(MORE)

"We're hoping to provide the coping skills to prevent future psychological problems," Quast said. "The new revolution in psychology is the emphasis on prevention. Ninety-five percent of the federal money still goes to treating existing psychological problems, but there's a trend to preventing these problems in high-risk groups."

The federal program to control teenage abuse of drugs and alcohol recently shifted from concentrating on the dangers of the chemicals, Quast said. "Rather than promoting the bad effects of drugs and alcohol, we're promoting health. We're trying to help people change their quality of life so they don't have the need to muck around with booze and drugs."

Children of alcoholics, obese people, American Indians, the elderly -- any group of people likely to be in stressful situations -- can benefit from preventive psychology like rational emotive training, Quast said.

"Now that I'm getting ready to retire I find that I'm in the most exciting part of my career," Quast said. When he moves to his farm in northern Wisconsin in June, he plans to continue his work in coping with stress at the Red Cliff Indian Reservation. He has already formed a women's support group there.

He also hopes to return to campus to work on other film projects with Eide. "The next one we'd like to do would be a version for American Indian children," Quast said. "I think we can base the techniques on a myth told by a tribal elder."

-UNS-

(AO,2c,6;Bl,13;CO,2c,6;DO,2c,6;EO,1,2c,6;F6;I6)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 19, 1982

MTT P-
DHT
g 24p

NEWS PEOPLE: For further information
contact PAUL DIENHART, (612) 373-7512

HAMILTON JORDAN TO DISCUSS
JIMMY CARTER'S PRESIDENCY

(FOR IMMEDIATE RELEASE)

Hamilton Jordan, Jimmy Carter's closest adviser during his White House years, will give a free public lecture assessing the successes and failures of the Carter presidency at noon March 2, in the ballroom of the University of Minnesota's St. Paul Student Center.

Following the lecture -- which will last about one hour -- Jordan will take questions from the audience. Jordan's visit is sponsored by the St. Paul Student Center Board of Governors.

Jordan first gained recognition as a political strategist in 1972 when, at age 27, he wrote a 70-page memorandum outlining how Carter, then governor of Georgia, could become president. After helping to guide Carter to the White House in 1976, Jordan was described by the Washington Post as "the second most powerful man in this country."

Jordan advised Carter on foreign and domestic policies and played special roles in negotiating the Panama Canal treaties, in encouraging Carter during the process which led to the Camp David peace accord, in finding a sanctuary in Panama for the deposed Shah of Iran and in dealing with the hostage crisis.

-UNS-

EDITOR'S NOTE: Jordan's speech and the question period are expected to last until around 1:30 p.m. Reporters who wish special access to Jordan may speak with him at 2 p.m. in the St. Paul Student Center ballroom.

(AO,3,13;B1;CO,3,13;DO,3,13)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 19, 1982

MTR
N47
9A4P

NEWS PEOPLE: For further information
contact JEANNE HANSON, (612) 373-7517

BELL MUSEUM TO SHOW WILDLIFE
PAINTINGS BY MAYNARD REECE

(FOR IMMEDIATE RELEASE)

A special exhibition of paintings by Maynard Reece will be on display in the Jaques Gallery at the Bell Museum of Natural History March 13 through April 17.

Reece, one of America's most popular wildlife painters, is best known for his waterfowl and upland game birds and is the only artist to win the Federal Duck Stamp competition five times. An Iowa native, Reece began his career as a staff artist at the State Museum in Des Moines where he painted a series of illustrations of fish.

Reece has been a freelance artist since the 1950s and is an enthusiastic outdoorsman who spends a major part of each year in the field, sketching, studying and gathering resource material for his paintings. He strives to capture on canvas the sense of his experience with wildlife in their natural habitats.

An opening reception will be held March 13 from 6:30 to 9 p.m. and will include a slide lecture by Reece at 7.

The museum is at the corner of 17th and University avenues on the University of Minnesota Minneapolis campus. Gallery hours are 10 a.m. to 3 p.m. Tuesdays through Fridays; 9 a.m. to 5 p.m. Saturdays; and 1 to 5 p.m. Sundays. Admission is free.

-UNS-

(AO,2,2a,18;B1,13;CO,2,2a,18)

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1411
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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
FEBRUARY 19, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS .
Feb. 24-March 2

- Wed., Feb. 24--North Star Gallery: Paintings by Mirta Toledo. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through Feb. 26. Free.
- Wed., Feb. 24--Nash Gallery: Mixed media by Susan Barry, Nancy Dahlof, Susan Jensen, Elizabeth La Veryne, Uche Oleke, Peder Thompson and Kathleen Zuckerman. Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through Feb. 26. Free.
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- Wed., Feb. 24--Black History Month film series: "No Maps on My Taps." 337 Coffman Union. Noon. Free.
- Wed., Feb. 24--Whole Coffeehouse: Manfredo Fest, jazz piano. Coffman Union. Noon. Free.
- Wed., Feb. 24--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Wed., Feb. 24--Theater production: "Fear and Loathing in Gotham" by Ping Chong's Fiji Company. Theater-lecture hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current fee statement.
- Wed., Feb. 24--Third Century Poetry and Prose series: Carol Bly. West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. Free.
- Thurs., Feb. 25--Black History Month film series: "Ku Klux Klan: The Invisible Empire." 337 Coffman Union. Noon. Free.
- Thurs., Feb. 25--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Thurs., Feb. 25--Theater production: "Fear and Loathing in Gotham" by Ping Chong's Fiji Company. Theater-lecture hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current fee statement.
- Thurs., Feb. 25--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$6, \$5 for students and senior citizens. Reservations: 373-2337.

(OVER)

- Fri., Feb. 26--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Fri., Feb. 26--Bijou films: "The Major and the Minor" (Billy Wilder, 1942) with short "Nothing But Nerves." West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Fri., Feb. 26--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Fri., Feb. 26--Theater production: "Fear and Loathing in Gotham" by Ping Chong's Fiji Company. Theater-lecture hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current fee statement.
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- Fri., Feb. 26--Dance band: New Prairie Ramblers. North Star Ballroom, St. Paul Student Center. 9 p.m. Free.
- Sat., Feb. 27--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Sat., Feb. 27--Bijou films: "Steamboat Bill, Jr." (Chuck Reisner, 1928) with Keaton shorts "The Goat" and "Paleface." West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Sat., Feb. 27--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Sat., Feb. 27--Theater production: "Fear and Loathing in Gotham" by Ping Chong's Fiji Company. Theater-lecture hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current fee statement.
- Sat., Feb. 27--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$6, \$5 for students and senior citizens. Reservations: 373-2337.
- Sun., Feb. 28--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 3 p.m. \$5, \$4 for students and senior citizens.
- Sun., Feb. 28--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Mon., March 1--Goldstein Gallery: "Latvian Mittens: Traditional Designs and Techniques," mittens and folk costumes coordinated by Lizbeth Upitis, weaver. 241 McNeal Hall, St. Paul campus. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through March 26. Free.
- Mon., March 1--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Tues., March 2--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.

MTR
N47
9A7p

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 22, 1982

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

'U' THEATRE PRODUCTION WILL BRING
APPALACHIAN FOLK TALE TO LIFE

(FOR IMMEDIATE RELEASE)

"Wiley and the Hairy Man," an Appalachian folk tale adapted for the stage by Susan Zeder, will be performed at 11 a.m. and 2 p.m. March 6 in the University of Minnesota's Rarig Center by Young People's University Theatre.

"Wiley," directed by theater arts professor Jean Congdon, is the story of a little boy who overcomes his fears about the world around him. One of Wiley's fears is of the "Hairy Man" who was once mean to Wiley's family. Both the Hairy Man and Wiley's mother, Mammy, possess magical skills. The children's play deals with the differences between good and evil magic and the "magic" in all humans.

Cast in lead roles are Mary Jo Rieger, Stuart Weems and Sal Andre. Rieger plays Wiley, while Weems plays the Hairy Man and Andre is cast as Mammy. Both Weems and Andre have appeared in other University Theatre productions. Claudia Dale Miller choreographed the production.

Tickets for "Wiley and the Hairy Man" are \$2 for adults and children. To make reservations, call 373-2337.

Rarig Center is at 330 21st Ave. S. on the west bank of the Minneapolis campus of the University of Minnesota.

-UNS-

(AO,2,2e;BI,13;CO,2,2e)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 22, 1982

MTR
N417
4-41p

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

MEMO TO NEWS PEOPLE

State Department official and native Minnesotan John D. Scanlan who received Polish Ambassador Romuald Spasowski's recent request for political asylum in the United States will visit the University of Minnesota from 12:30 to 2:30 p.m. Thursday.

Scanlan, 54, will meet with students and faculty of the Hubert H. Humphrey Institute of Public Affairs and talk about "The Polish Crisis: A View from the State Department." The talk will be in the Fireplace Lounge of Willey Hall on the west bank of campus and will be followed by a question and answer session led by Harlan Cleveland, Humphrey Institute director.

Scanlan will be available for interviews with reporters from 10 a.m. to noon. Contact Nancy Girouard at 373-9780 for an appointment.

Scanlan was born in Thief River Falls, where he attended high school. After serving in the U.S. Navy he attended the University of Minnesota where he earned a bachelor's degree in history in 1952 and a master's degree in Russian studies in 1955.

Scanlan, a Foreign Service officer for 26 years, has served as deputy assistant secretary for Soviet and East European Affairs in the State Department since April 1981. He currently heads the department's Polish Working Group, established after the Polish government declared martial law.

During his career Scanlan has served primarily in Europe, with appointments in Moscow, Warsaw and Belgrade.

-UNS-

(AO,13;BI;CO,13;F22)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 23, 1982

MTR
N47
9 A4P

NEWS PEOPLE: For further information
contact RALPH HEUSSNER, (612) 373-5830

MEMO TO NEWS PEOPLE

A team of medical scientists will hold a press conference on the status of a nationwide study of the effects of lowered cholesterol levels on heart disease at 9:30 a.m. March 3 in the east wing of the Campus Club in Coffman Union on the Minneapolis campus of the University of Minnesota.

The Program on Surgical Control of the Hyperlipidemias (POSCH) recently passed a milestone -- the recruitment of 500 heart attack victims for the study. By mid-1983 there should be 1,000 participants from throughout the country in the project, which is also known as the Hyperlipidemia-Atherosclerosis Study.

Among those meeting with reporters will be: Henry Buchwald, principal investigator and professor of surgery and biomedical engineering; Richard Moore, study lipidologist and professor of surgical sciences; and John Long, director of POSCH coordinating center and professor of biometry.

While the scientists are unable to draw any conclusions about prevention of heart attacks, they will review current cholesterol lowering information and case histories and will place the POSCH study in the context of other heart disease studies which have been discussed recently in the press and scientific journals.

The study is based at the University of Minnesota with clinics in Minneapolis, Philadelphia, Little Rock, Ark., and Los Angeles.

For more information on the study, contact Moraine Byrne, media and public relations coordinator for the Hyperlipidemia-Atherosclerosis Study, at (612) 376-4494.

-UNS-

(A0,23,24;B1,4,5;C23,24;D23,24)

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
FEBRUARY 26, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
March 3-9

- Wed., March 3--North Star Gallery: Drawings by Linda Henderson. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 3--Goldstein Gallery: "Latvian Mittens: Traditional Designs and Techniques," mittens and folk costumes coordinated by Lizbeth Upitis, weaver. 241 McNeal Hall, St. Paul campus. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through March 26. Free.
- Wed., March 3--Nash Gallery: "1982 Graduate Review Show." Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through March 12. Free.
- Wed., March 3--The Gallery: Paintings by Robert Fisch. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 3--Coffman Union Gallery: "Graduate Review Show," galleries 1 and 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through March 19. Free.
- Wed., March 3--University Gallery: "Beyond the Box: Architecture by Philip Johnson and John Burgee, Photographed by Richard Payne" and "Keck & Keck: Architects," through March 14. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., March 3--Film: "Right Out of History: The Making of Judy Chicago's Dinner Party." Program Hall, West Bank Union. Runs continuously 9 a.m.-3 p.m. Free.
- Wed., March 3--Whole Coffeehouse: Hall Sanders Jazz Quintet. Coffman Union. Noon. Free.
- Wed., March 3--University Film Society: "Pixote" (Brazil, 1980). Bell Museum of Natural History aud. 7:15 and 9:30 p.m. \$3.
- Thurs., March 4--Concert: Robert Legnani, classical guitarist from Germany. West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Thurs., March 4--Theater production: "Paris," by Meredith Monk and company with Ping Chong. Great Hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current fee statement.
- Thurs., March 4--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Fri., March 5--Film: "Life of Brian." Theater-lecture hall, Coffman Union. 1:30, 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.

(OVER)

- Fri., March 5--University Film Society: "Plouffe Family" (Canada, 1981). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Fri., March 5--Bijou film: "A Foreign Affair" (Billy Wilder, 1948). West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Fri., March 5--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Fri., March 5--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Fri., March 5--Whole Coffeehouse: Things That Fall Down, rock. Coffman Union. 9 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sat., March 6--University Theatre: "Wiley and the Hairy Man," Appalachian folk tale adapted for stage by Susan Zeder. Rarig Center. 11 a.m. and 2 p.m. \$2. Reservations: 373-2337.
- Sat., March 6--Film: "Life of Brian." Theater-lecture hall, Coffman Union. 7 and 9:10 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sat., March 6--University Film Society: "Plouffe Family" (Canada, 1981). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Sat., March 6--Bijou film: "Never Weaken" (1923). West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Sat., March 6--Punchinello Players: "The Shadow Box" by Michael Cristofer. North Hall, St. Paul campus. 8 p.m. \$3. Reservations: 373-1570.
- Sat., March 6--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 8 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sat., March 6--Whole Coffeehouse: Things That Fall Down, rock. Coffman Union. 9 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sun., March 7--University Theatre: "Once Upon a Mattress" directed by Peter Jablonski. Whiting Proscenium Theatre, Rarig Center. 3 p.m. \$5, \$4 for students and senior citizens. Reservations: 373-2337.
- Sun., March 7--Film: "Life of Brian." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sun., March 7--University Film Society: "Plouffe Family" (Canada, 1981). Bell Museum of Natural History aud. 7:30 p.m. \$3.
- Mon., March 8--University Film Society: "Prison for Women" (Canada, 1981). Bell Museum of Natural History aud. 7:30 and 9 p.m. \$2.50.
- Tues., March 9--University Film Society: "Prison for Women" (Canada, 1981). Bell Museum of Natural History aud. 7:30 and 9 p.m. \$2.50.

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 26, 1982

NEWS PEOPLE: For further information
contact RALPH HEUSSNER, (612) 373-5830

NURSE-MIDWIFE NAMED DIRECTOR
OF U OF M CHILDBEARING CENTER

(FOR IMMEDIATE RELEASE)

Irene Nielsen, a nurse-midwife who has delivered more than 2,000 babies, has been named director of the Childbearing-Childrearing Center at the University of Minnesota.

Nielsen has served as director and president of the Birth Center in Cottage Grove, Ore., since 1976 and has worked as a public health nurse, a nurse practitioner and a U.S. Army nurse.

Nielsen received a bachelor of science degree in nursing from Gustavus Adolphus College in St. Peter in 1961 and a master of science degree in maternal and child nursing and midwifery from the University of Utah in 1971. She has served on the faculty of Idaho State University and has taught nurse-midwifery students from the University of California at San Francisco.

"I feel the concept of offering safe choices for pregnant women and their families in a university setting is exciting," Nielsen said. She added that the center's services go beyond prenatal care and delivering babies. "We build families," she said.

Nielsen, her husband and four children live in St. Paul. The Childbearing-Childrearing Center, which opened in 1975, is staffed by certified nurse midwives, pediatric nurse associates and adult nurse practitioners.

-UNS-

(AO,23,27;B1,4;EO,23,27)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 1, 1982

NEWS PEOPLE: For further information
contact PAT KASZUBA, (612) 373-7516

PERSONAL 'MONEY MATTERS'
FOCUS OF U OF M CONFERENCE

(FOR IMMEDIATE RELEASE)

A one-day seminar designed to make the complexities of money matters more understandable will be offered March 10 at the Holiday Inn in downtown Minneapolis.

"Money Matters" will feature several local experts including Sung Won Son, senior vice president and chief economist for Northwestern National Bank, who will present "A Framework for Maximizing Wealth."

Jena Northrop Carey, a financial consultant, will talk about the importance of financial planning and selecting the right investments. Tax attorney Linda Schwartz will explain some of the recent changes in tax law. Financial consultant Erica Whittlinger will talk about tax-sheltered investments, and Jon Theobald, executive vice president of First Trust Company of St. Paul, will discuss estate planning.

The seminar, which is sponsored by the University of Minnesota's department of continuing education for women, will begin at 9 a.m. and end at 4 p.m. The cost of the noon luncheon is included in the \$45 registration fee.

For more information contact Camilla Colantonio, department of continuing education for women, 200 Westbrook Hall, 77 Pleasant St. S.E., University of Minnesota, Minneapolis, MN 55455, 373-9743.

-UNS-

(AO,3;B1,8;CO,3)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7516
March 1, 1982

MIDDLETOWN STUDIES DEBUNK
MYTH OF DECLINING FAMILIES

By Pat Kaszuba
University News Service

The prophets of doom were wrong. Working mothers haven't ruined childhood, the divorce rate and sexual revolution aren't destroying the family and the halcyon days of yesteryear aren't lost forever -- at least not in Middletown, U.S.A.

Things have changed in Muncie, Ind., since it became the Middletown of Robert and Helen Lynd's classic studies of life in Middle America 50 years ago. The population has doubled, local drive-in theaters show X-rated movies and the teachers college has grown into Ball State University.

But some very important things -- sexual equality, family bonds and financial security -- have only gotten better if they've changed at all, say the authors of "Middletown Families: Fifty Years of Change and Continuity," which will be published in April by the University of Minnesota Press.

A group of social scientists headed by sociologist Theodore Caplow of the University of Virginia took turns living in Muncie from the spring of 1976 until the fall of 1978 documenting the changes that have occurred since the Lynds published "Middletown" in 1929 and "Middletown in Transition" in 1935. They asked the same questions of the same age groups and they observed life in Muncie firsthand as did the Lynds.

Their surveys and observations are the basis for "Middletown Families" and several volumes to follow, including "All Faithful People," a study of religion in Muncie scheduled for publication next year. Other books will deal with work and careers, the public sector and a summary of the changes.

A six-part documentary series on modern life in Middletown will be aired on consecutive Wednesdays on Public Broadcasting Service stations beginning March 24. Each program will focus on one of the six areas the Lynds studied -- politics, leisure, religion, work, marriage and education.

"The major point the book makes is the refutation of people like (Alvin) Toffler and his 'Future Shock' and other prophets of doom who see this ever-accelerating social change and the family-is-going-to-hell-in-a-handbasket phenomenon," said co-author Bruce Chadwick, a Brigham Young University sociologist. "We didn't find that at all.

(MORE)

MIDDLETOWN

"We found change occurring, but it is rather slow and orderly and, for the most part, it is for the good and makes people happier in their jobs, in their family life and in religion," Chadwick said. "The evidence is that the family is more vital, more important to people, stronger and more satisfying today than it has ever been."

Although the authors stress that the findings of the Middletown III studies can't be applied to every American community -- because of differences in population, economic conditions and ethnic mix -- Howard Bahr, another co-author, said the studies show something about change in general.

"The reason Middletown is so interesting, the reason it is worth studying is that we know what it was like there 50 years ago -- not because somebody remembers it with all the error and nostalgia that creep into memories, but because the Lynds did such an excellent job of documenting what the young people, the older people and the community leaders felt was happening and what the Lynds saw happening," said Bahr, who heads the Family and Demographic Research Institute at Brigham Young University.

Reuben Hill, an internationally known expert on the sociology of the family, said the biggest surprise of the study -- the lack of change in family life -- probably came because of the mass media's attention to the unusual. "We arrived with the common-sense perception that the family was really in trouble," said Hill, who teaches at the University of Minnesota. "In part we suspect that we derived that conclusion about changes from the media which operate -- necessarily -- on the basis of that which is colorful, that which is new and that which is different. There is just no point in reporting that things are the same, just no point at all."

One aspect of family life that has changed in Middletown, as well as in the rest of the country, is the large number of women who work outside the home. Hill called this "the most dramatic change in the 20th century" family.

"In the 1920s women worked outside the home, but the women who did were working class women and it was to help support their families," Bahr said. "So in this case we have a situation where the middle-class women have come to be like the working-class women were back in the '20s."

Although more women are spending more time outside the home, they are still doing the largest part of the household chores, Bahr said. "There is some evidence that men do a little more of the housework and the child care than they used to, but the husband's share of the roles has not increased nearly as much as women's participation in the provider role."

Female adolescents also have changed more than their male counterparts in Middletown. Bahr said there has been an equalization of roles of young men and women in the past 50 years, but it has been the females who have undergone the

(MORE)

changes. "Today's young women are about as liberated as today's young men and about as liberated as the young men of the '20s, but far more liberated than were the young women of the '20s," he said.

Middletown III also found that, at least in Muncie, ties with relative don't seem to be loosening. "We were surprised to find kinship ties as vital and integral a part of the community as they are," Bahr said. "As we studied kinship ... it emerged that Middletown people spend more time with their relatives than with friends or neighbors, that relatives continue to be the anchors that bind them to communities. The responsibilities for one's blood relatives or relatives by marriage are, more than anything else, in our view, the glue that binds people to their communities."

It is fairly certain that when it comes to making a living these are good old days compared to half a century ago. "If you looked at the opportunity to earn a living in the 1920s and compared that with today, it teaches a great lesson of history," Chadwick said.

"In the 1920s one worked five-and-a-half or sometimes six 10-hour days, one had no unemployment insurance, one had no health insurance, one had no retirement plan and most men didn't know what they were going to do at the ripe old age of 40 or 44 when they were simply burned out from working in the factory," Chadwick said. "Contrast that with today's group insurance plans, retirement plans, Social Security, health insurance, safety standards and so on and you see a real change in lifestyle."

Bahr summarized the findings: "I guess if you wanted an underlying message, we're saying two things: the overall trends do not suggest that families are in collapse, and the overall trends do suggest the family institution as we know it in Middle America is a remarkably flexible and viable thing that is adaptable and can survive in changing conditions.

"So instead of lamenting changes from an imaginary family of yore, we perhaps ought to be celebrating the remarkable tenacity of family ties and of family forms to survive despite the assault of modern times."

-UNS-

(AO,6;B1,16;CO,6;DO,6;EO,1,6;G25)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 2, 1982

MTR
N47
GAIP

NEWS PEOPLE: For further information
contact ELIZABETH PETRANGELO, (612) 373-7510

BUDGET CUTS MEAN
TRANSIT REDUCTIONS

(FOR IMMEDIATE RELEASE)

University of Minnesota bus service will be reduced, parking rates will rise and the bus that takes students across the Washington Avenue bridge will cost 10 cents a ride beginning spring quarter, all the result of cuts in the University of Minnesota budget caused by the state's fiscal crisis.

Transit services were cut \$350,000 as part of a plan to reduce the university's state appropriation for 1981-83 by \$26.6 million, said Frederick M. Bohen, vice president for finance and operations.

Decisions on where to cut services and where to raise the cost to consumers were made only after several meetings with campus groups that represent students, faculty members and civil service workers, Bohen said.

"The committees were unanimous in their feeling that none of the basic transit services should be cut," Bohen said. Each of the groups consulted said members of the university community would rather pay to keep service at a reasonable level than suffer a drastic cut in bus service, he said.

The following changes will become effective March 29, the first day of spring quarter:

--The frequency of the Saturday Route 13 intercampus bus service will be reduced to every 40 minutes throughout the day and evening. Currently, the bus runs every 20 minutes until 1:30 p.m.

--Frequency of the Route 13 intercampus bus during the week will be reduced slightly. Forty-minute service now begins at 7:30 p.m.; under the new schedule, 40-minute service will begin at 6:30 p.m. Twenty-minute service will continue before 6:30 p.m.

(MORE)

--About 8 percent of the "doubleheader" buses on Route 52-U, the commuter bus service, will be eliminated. Two buses now serve the same stop during peak hours. The "doubleheaders" to be eliminated are on routes where the need is marginal.

--A 10-cent fare will be charged for the east bank-west bank bus service, a service that is currently free.

--Effective July 1, a 5-cent surcharge will be added to the daily cost of all transient and contract parking lots, ramps and garages, with the money raised to support the other transit services, which ease the parking situation on campus.

Beginning winter quarter 1983 the shuttle bus service from the fairgrounds to the St. Paul campus will be eliminated. That service now operates only from 7:15 to 9:15 a.m. and from 3:45 to 5:05 p.m. during winter quarter.

"Any cutbacks are going to hurt," Bohlen said. "However, we hope the decisions that have been made in this case will spread the hurt somewhat and still provide the services that the majority of those we contacted felt the university should provide."

The increases mandated by the budget cuts will come on top of a general 10 percent increase in parking rates which will go into effect July 1 of this year. Bohlen said this general increase is needed to cover rising costs of operation, repairs and maintenance and the funding for additional parking ramps.

-UNS-

(AO,1;B1;CO,1;E15)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-7517
March 2, 1982

MTR
N47
824p

MINNESOTA SCIENTISTS LOOK FOR
TRACES OF UNIVERSE'S BIRTH

By Jeanne Hanson
University News Service

Using a technique they developed to detect single atoms passing through a laser beam, a group of University of Minnesota physicists is beginning a search for very heavy atoms that may have been formed in the first microseconds of the creation of the universe.

The experiment, one of a few ever launched in the country, provides a glimpse of science at a frontier. The difficulties of a pure physics experiment such as this range from the elusive to the mundane, from the unimaginable rareness of the particles to be detected to the mice found chewing on computer wires.

The technique to be used, called laser fluorescence, is extremely sophisticated, but still the search will make looking for a needle in a haystack seem easy, said George Greenlees, physics professor in the university's Institute of Technology and leader of the group.

Perhaps only one atom in a trillion has survived as a fossil footprint of that first one trillion trillionth of a second of the Big Bang, the fireball of energy thought to have created the universe 20 billion years ago, Greenlees said. The fireball quickly blazed to a temperature of about one billion trillion trillion degrees centigrade, then rapidly cooled as it expanded, turning energy into matter and perhaps creating and trapping very heavy quarks (sub-atomic particles) in the nuclei of atoms.

The result was, Greenlees speculates, isotopes (or versions) of the atoms some 100 to 10,000 times heavier than those formed a few cooler seconds later and now composing most of the universe.

If some of these heavy isotopes have survived they should be distributed randomly throughout the universe, present in virtually all materials including those on Earth, Greenlees said. They should also be distinguishable from atoms created in any other

(MORE)

way, since no other event in the universe has equaled the energy of the Big Bang. Even an atomic accelerator reaching from Earth to the sun and using the entire energy output of the sun could not create even one such heavy atom, Greenlees said.

At the frontier of basic physics uncertainty is everywhere. No one knows precisely what happened at the Big Bang, so no one knows exactly what kind of particle to look for as evidence of it or even how to calculate the number of such particles surviving today. "In fact, we're looking for them so that we can describe the birth of the universe more precisely," Greenlees said.

The team devised a plan to find the atoms, so small that 100 million in a row would equal only an inch. First, they built a large experimental lab table suspended so carefully that it does not move even a millimeter when a truck goes by or someone shuts a door. Next, they installed a laser which was tuned to such a precise color (or frequency) that it varies by no more than one part in a billion. This precision requires several lenses and mirrors arrayed like croquet wickets on the table.

Near the other end of the table is an oven to heat the material to be tested -- in this case it is ordinary sodium. "We could have used almost any material," Greenlees said, "since evidence of the Big Bang, if it is anywhere, should be everywhere."

Below the oven is an evacuating pump which maintains a constant vacuum within the apparatus since even a few stray air particles could ruin the efficiency of the experiment.

Next came the computer hook-up, which should have been simple. "We couldn't figure out what was wrong until we found the mice chewing on the wiring," Greenlees said.

Last comes the most complicated step, the one not yet quite completed: fine-tuning the entire experimental apparatus to eliminate extraneous distortion, such as interference from a 50-kilowatt radio station, pulses from nearby small machines, cosmic ray bombardment and residual radioactivity. "Electronic vetoes" to eliminate

(MORE)

the effect of the cosmic rays are proving especially difficult to create, Greenlees said.

Once everything is ready, the researchers will put into action the technique developed earlier to detect individual atoms. The sodium will be heated in the oven, allowed to vaporize into the vacuum chamber and exposed to the laser beam. A sensitive detector will then "see" and measure each atom, looking for the few that are much heavier than the rest -- these would be the new evidence of the Big Bang.

Out of the flux of 100 billion sodium atoms to pass through the laser beam every second, at least 100,000 can be examined every second. So looking for one atom in 100 billion should take only about 100 hours of experiment time -- even with extra allowance to be sure. By spring they should have preliminary results, Greenlees said.

Although he is hoping to find very heavy atoms, even a negative result will be interesting, Greenlees said. It will tell us what did not occur at the Big Bang, or that the particles created in it are not as stable as they were thought to be. Any result will help explain how all the forces of nature converged at that moment, only to fall into relative separation, he said. Surveying his own earthly apparatus somewhat wistfully, Greenlees said, "the Big Bang was the best lab for high energy physics."

-UNS-

(AO,4;B1,12;CO,4;DO,4;EO,1,4,4a,4h;I4)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 3, 1982

MTR
N47
BAP

NEWS PEOPLE: For further information
contact PAT KASZUBA, (612) 373-7516

ACCESSORY HOUSING TOPIC OF
U OF M REAL ESTATE CONFERENCE

(FOR IMMEDIATE RELEASE)

Across the country more and more homeowners are adding entrances, updating plumbing and widening driveways to bring in extra dollars by converting basements and spare bedrooms into apartments.

Such conversion -- called accessory housing -- will be the subject of a one-day conference March 12 at the Earle Brown Continuing Education Center on the St. Paul campus of the University of Minnesota.

Housing consultant Patrick H. Hare of Washington will talk about what has been called the nation's largest untapped housing resource and will provide information on how accessory housing affects real estate sales, national trends encouraging conversions and who -- from first-time home buyers to retired persons -- is likely to purchase such housing.

Chuck Ballentine of the Metropolitan Council will discuss the council's 1981 study of the Twin Cities housing market.

Planning, zoning and other legalities of conversion will be discussed by Gene Malis, director of rehabilitation for the Dakota County Housing Authority.

Floyd Lapp, assistant director of the planning division of the Tri-State Regional Planning Commission in New York, will talk about the need for conversions and how to get started in this new area of development.

There is a \$95 fee for the seminar, which begins at 8 a.m. The cost of lunch, refreshments and handouts is included in the fee. The course has been approved for 7.5 hours of credit in continuing education in real estate.

For more information or to register, contact Tom Musil, director of Continuing Education in Real Estate, 107 Armory Building, 15 Church St. S.E., University of Minnesota, Minneapolis, MN 55455 or (612) 376-8846.

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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 4, 1982

NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

U OF M LEGAL EDUCATION WEEK
OFFERS UPDATE ON THE LAW

(FOR IMMEDIATE RELEASE)

A group of nationally known attorneys will participate in the second annual Continuing Legal Education Week at the University of Minnesota Law School March 22 through 27.

Six areas of law will be covered during the week: business planning, March 22; rules of evidence, March 23; corporate law, March 24; private securities actions, March 25; the modern civil practice, March 26; and estate planning, March 27.

James Hale and David Herwitz will lead the seminar on business planning. Hale is senior vice president and general counsel for the Dayton Hudson Corp. He is a graduate of the university's Law School where he served as adjunct professor of law from 1967 to 1973.

Herwitz is Austin Wakeman Scott Professor of Law at Harvard Law School. He served as an attorney with the U.S. Tax Court before joining the Harvard faculty. He has written two books, "Cases and Materials on Business Planning" and "Materials on Accounting for Lawyers."

Irving Younger, a partner in the Washington firm of Williams and Connolly and an adjunct professor of law at Georgetown University, will lecture on evidence.

The session on "Developments in Corporate Law" will be led by Robert C. Clark, who joined the Harvard Law School faculty in 1978. He spent several years in private practice in Boston and also taught at the Yale Law School.

Another Harvard professor, Louis Loss, will lead the seminar on "Private Securities Actions." Loss has held several government positions and has written for American and foreign law journals.

(MORE)

Arthur R. Miller, known to television audiences as the host of the Public Broadcasting Service series "Miller's Court," will discuss changes and trends in civil cases. Before joining the Harvard faculty in 1971, Miller taught at the University of Minnesota and University of Michigan Law Schools.

Lifetime giving, planning for the payment of death costs and marital deduction planning will be some of the topics covered in "Estate Planning, 1982" led by A. James Casner and Robert A. Stein. Casner, professor emeritus of law at Harvard, co-authored "Estate Planning Under the Tax Reform Act of 1976" with Stein, dean of the University of Minnesota Law School. They will discuss many of the recent changes in the tax law.

Each of the seminars will be from 9 a.m. to 5 p.m. and will be held either in Room 25 of the Law Center or in Willey Hall Auditorium, adjacent to the Law Center. Both are on the west bank of the Minneapolis campus. Registration is from 8 to 9 a.m. and each seminar costs \$85. Persons who attend two or more seminars will receive a \$10 discount.

Although the seminars are designed for practicing attorneys, they are open to the public. Each course has been approved for six hours of credit by the Minnesota Board of Continuing Legal Education and the Wisconsin Board of Attorneys Professional Competence.

Persons interested in attending any of the seminars may contact the Law School at 285 Law Building, 229-19th Ave. S., University of Minnesota, Minneapolis, MN 55455 or (612) 373-2717.

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(AO, 3, 11; B1, 6; CO, 3, 11; DO, 3, 11)

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MARCH 4, 1982

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NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

STASSEN CENTER TO BE ESTABLISHED
AT THE HUMPHREY INSTITUTE

(FOR IMMEDIATE RELEASE)

A center designed to promote world peace will be established in honor of three-time Minnesota governor Harold Stassen at the University of Minnesota Hubert H. Humphrey Institute of Public Affairs.

The Harold Stassen Center for World Peace will be in the Hubert H. Humphrey Building, which is to be built on the west bank of the university's Minneapolis campus, institute director Harlan Cleveland said today.

As planned the program of the Stassen Center will require a \$1.1 million endowment. Of this, more than half has been pledged. An additional \$100,000 will go to the Minnesota Historical Society for the cataloging and management of the Stassen papers.

The new center honors Stassen, one of the university's most distinguished graduates. Stassen was twice chairman of the U.S. Governors' Conference, a decorated naval flag officer under Adm. William Halsey in World War II in the Pacific, a U.S. delegate to the United Nations Charter Conference in San Francisco in 1945 and president of the University of Pennsylvania from 1948 to 1952. He was a cabinet officer and member of the National Security Council under President Eisenhower, serving first as director of the Foreign Operations Administration and later as Eisenhower's special assistant and chief negotiator in the first significant arms control negotiations in the post World War II period.

The program of the new Stassen Center in the Humphrey Institute will focus primarily on arms control, the United Nations, and modernization of the developing nations. These are subjects on which Harold Stassen and Hubert Humphrey, who were two fellow Minnesotans from two different political parties, worked together in a bi-

(MORE)

partisan manner during the 1950s, Cleveland told the Humphrey Institute's Advisory Committee meeting in Minneapolis.

Fundraising for the Stassen Center program is under the direction of Robert E. Matteson, a personal friend and long-time associate of Stassen in the Eisenhower administration and at the University of Pennsylvania. Matteson, who lives at Cable, Wis., is a member of the Minnesota Historical Society Board and is chairman of the Glenview Foundation, whose principal assets are the Stassen papers. These papers are being given to the Minnesota Historical Society and will be made available to the Stassen Center, to scholars from around the world and to the public at large.

The income from the endowment will serve to fund a Harold Stassen Professorship of World Peace, support staff and research assistance, periodic seminars and papers and an annual or bi-annual conference. The endowment will be administered by the University of Minnesota Foundation.

The Stassen papers at the Minnesota Historical Society will be made available to the Stassen Center through videotapes and videodiscs. They comprise an unusually rich resource of material dealing with such subject matter as arms control, the United Nations, the Third World, U.S.-Soviet relations and the restructuring of state government -- subjects with which Stassen was closely associated. The Stassen Center will also include important memorabilia from Stassen's distinguished service to Minnesota, the nation and the United Nations.

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(AO,13;B1;CO,13;DO,13;EO,13;F22)

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MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
MARCH 5, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS

March 10-16

- Wed., March 10--North Star Gallery: Drawings by Linda Henderson. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 10--Goldstein Gallery: "Latvian Mittens: Traditional Designs and Techniques," mittens and folk costumes coordinated by Lizbeth Upitis, weaver. 241 McNeal Hall, St. Paul campus. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through March 26. Free.
- Wed., March 10--Nash Gallery: "1982 Graduate Review Show." Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through March 12. Free.
- Wed., March 10--The Gallery: Paintings by Robert Fisch. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 10--Coffman Union Gallery: "Graduate Review Show," galleries 1 and 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through March 19. Free.
- Wed., March 10--University Gallery: "Beyond the Box: Architecture by Philip Johnson and John Burgee, Photographed by Richard Payne" and "Keck & Keck: Architects," through March 14. "Contemporary Artists on Art," ongoing exhibit. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Free.
- Wed., March 10--Whole Coffeehouse: Export, jazz. Coffman Union. Noon. Free.
- Wed., March 10--University Film Society: "The Shooting Party" (USSR, 1977). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Wed., March 10--Dance: U of M Dance Program faculty. The Theatre, St. Paul Student Center. 8 p.m. \$3, \$2 for U of M students with current ID.
- Wed., March 10--Third Century Poetry and Prose series: Publication reading for "The Salt Ecstasies" by James L. White. Readers: Natalie Goldberg, Patricia Hampl, David Martinson, George Roberts, Kate Green, Tom Young and James Moore. 125 Willey Hall. 8 p.m. Reception follows. Free.
- Thurs., March 11--University Film Society: "The Shooting Party" (USSR, 1977). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Thurs., March 11--Dance: U of M Dance Program faculty. The Theatre, St. Paul Student Center. 8 p.m. \$3, \$2 for U of M students with current ID.

(OVER)

- Thurs., March 11--Theater production: "Dead End Kids: A History of Nuclear Power" by Mabou Mines. Great Hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current ID.
- Fri., March 12--University Film Society: "The Shooting Party" (USSR, 1977). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Fri., March 12--Bijou film: "The Fortune Cookie" (Billy Wilder, 1966). West Bank Union Aud. (Willey Hall, east end, lower concourse). 8 p.m. \$1.50.
- Sat., March 13--Jaques Gallery: Paintings by Maynard Reece. Bell Museum of Natural History. 10 a.m.-3 p.m. Tues.-Fri.; 9 a.m.-5 p.m. Sat.; 1-5 p.m. Sun. Through April 17. Free.
- Sat., March 13--Concert: U of M Marching Band benefit concert to raise money for their upcoming trip to Spain. Northrop Aud. 8 p.m. \$5, \$4 for U of M students with current fee statement.
- Sat., March 13--Theater production: "Dead End Kids: A History of Nuclear Power" by Mabou Mines. Great Hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current ID.
- Sat., March 13--University Film Society: "The Shooting Party" (USSR, 1977). Bell Museum of Natural History aud. 9:15 p.m. \$3.
- Sun., March 14--University Film Society: "The Shooting Party" (USSR, 1977). Bell Museum of Natural History aud. 7:30 and 9:30 p.m. \$3.
- Sun., March 14--Theater production: "Dead End Kids: A History of Nuclear Power" by Mabou Mines. Great Hall, Coffman Union. 8 p.m. \$5, \$4 for U of M students with current ID.

-UNS-

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UNIVERSITY OF MINNESOTA
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100 CHURCH ST. S.E.
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MARCH 8, 1982

MTR
N47
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NEWS PEOPLE: For further information
contact JEANNE HANSON, (612) 373-7517

REGISTRATION OPEN FOR
CHILDREN'S ART CLASSES

(FOR IMMEDIATE RELEASE)

Registration is now open for children's spring art classes at the University of Minnesota. The classes, designed for children from 5 to 10 years old, will meet Saturdays from 10 a.m. to 12:30 p.m. April 3 through June 5. The cost is \$30 for the nine sessions.

The art classes will emphasize creative development and exploration in many media, from weaving and sculpture to woodworking and batik dyeing. For more information or to register, contact Virginia Eaton, Institute of Child Development, 154 Child Development, 51 E. River Road, University of Minnesota, Minneapolis, MN 55455, telephone (612) 373-2389 or 373-2390.

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UNIVERSITY OF MINNESOTA
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MARCH 8, 1982

NEWS PEOPLE: For further information
contact ELIZABETH PETRANGELO, (612) 373-7510

MEMO TO NEWS PEOPLE

Results of an independent review of University of Minnesota plans for a new \$154 million hospital building will be discussed by the Board of Regents at a special meeting of the committee of the whole Thursday (March 11) at 10 a.m. in 238 Morrill Hall.

The study, done by nationally known health care consultant Robert Derzon, was commissioned in January to get another opinion on underlying assumptions about the project, in light of the state's poor fiscal situation and proposed changes in federal health care legislation.

During their two days of meetings, the regents also will vote on an administration recommendation to levy a 15 percent tuition surcharge for next year and to raise the base tuition rate by 10 percent. At last month's meeting President C. Peter Magrath asked the board to approve the 15 percent surcharge to raise part of the \$26.6 million hole left in the university's 1981-83 budget by state cuts. (The board approved the surcharge for summer, but held off voting on next academic year until this month.) The surcharge would come on top of the 10 percent tuition increase that was already planned for fall quarter before the state cuts were made.

The tuition discussion will take place Friday at 8:30 a.m. in 238 Morrill Hall. As part of the discussion, the regents will hear optional plans for smaller tuition surcharges combined with larger internal retrenchment.

The schedule of meetings and possibly newsworthy agenda items follows:

--Committee of the whole (special meeting), 10 a.m. Thursday, 238 Morrill Hall.

Robert Derzon's report on the hospital renewal project.

(OVER)

--Non-public noon meeting, Campus Club, Coffman Union. Discussion of cases under litigation.

--Student concerns committee, 1:30 p.m. Thursday, 300 Morrill Hall. Regents' responses to student leaders' concerns raised at last month's meeting.

--Educational policy and long-range planning committee, 1:30 p.m. Thursday, 238 Morrill Hall. Continued discussion of the "program priorities statement" presented last month, which lays out the list of programs that will be eliminated, re-organized or condensed over the next several years.

--Faculty and staff affairs committee, 3 p.m. Thursday, 300 Morrill Hall. Action on a plan to allow separation pay, phased retirement or early retirement for tenured faculty members whose jobs would be eliminated by the reorganization plan. Discussion on a revised policy governing faculty consulting.

--Physical plant and investments committee, 3 p.m. Thursday, 238 Morrill Hall. Action on two additions to the regents' policy of selective divestment of holdings in companies that do business in South Africa. The additions call for divestiture of holdings in companies that: fail to sign and give evidence of progress in carrying out the Sullivan Principles (a code of conduct governing equal opportunity and treatment in the work place) and fail to prohibit new loans or increases in existing loans to the South African government.

--Dinner meeting, 6 p.m. Thursday, Campus Club. The regents will meet with the Faculty Consultative Committee.

--Committee of the whole, 8:30 a.m. Friday, 238 Morrill Hall. Discussion of how budgeting will be done under the reorganizational plan. Action on the proposal to raise tuition by 10 percent and levy an additional 15 percent surcharge for 1982-83. Discussion of other options-- lower surcharge amount combined with larger internal cuts. At the same meeting, Magrath will outline for the board the status of negotiations between the university and the Metropolitan Sports Facilities Commission.

--Full board meeting, 10:30 a.m. Friday, 238 Morrill Hall.

Final action on votes taken at the committee meetings.

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100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 8, 1982

NEWS PEOPLE: For further information
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ART DECO MOVIE THEATER DESIGN
SUBJECT OF 'U' GALLERY EXHIBIT

(FOR IMMEDIATE RELEASE)

Art deco movie theaters will be the subject of an exhibition at University Gallery on the University of Minnesota Minneapolis campus March 22 through April 25.

"Marquee on Main Street: Jack Liebenberg's Deco Movie Theaters, 1928-1941" includes about 45 original architectural drawings and color renderings and 30 period photographs of theater facades and interiors in Minnesota, Iowa, North and South Dakota and Wisconsin.

Liebenberg, the most active theater architect in the Upper Midwest, graduated with the first class of the School of Architecture at the University of Minnesota in 1916. He received a McKim Fellowship to Harvard and after World War I joined his brother-in-law, Seeman Kaplan, in opening an architectural firm in Minneapolis. Between 1928 and 1941 the firm designed about 200 movie theaters, almost exclusively in art deco style.

Liebenberg's theater designs mirrored the escapism that movies of the 1930s provided their audiences, said Laura Andrews, a gallery staff member. The designs used streamlined shapes, bold patterns and rich colors.

Gallery hours are 11 a.m. to 4 p.m. Monday, Wednesday and Friday; 11 a.m. to 8 p.m. Tuesday and Thursday; and 2 to 5 p.m. Sunday. The gallery is in Northrop Auditorium and is open to the public at no charge.

-UNS-

(AO,2,2a;B1;CO,2,2a)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 9, 1982

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LOWLY HAGFISH HELPS SCIENTISTS
UNLOCK THE SECRETS OF SLIME

By Barbara Scott Murdock
University News Service

Snails glide on it, clams catch food in it, sea anemones stick themselves to rocks with it. In humans, it's featured in such miseries as colds, pneumonia, and cystic fibrosis, but also protects the stomach from its own gastric juices, helps food slide through and traps soot and dust before they reach the lungs.

Widespread in the animal kingdom, both as a lubricant and a glue, mucus can perform diverse functions.

The catch to studying mucus and finding out how it manages to perform these different functions is that by the time it is outside the glands that produce it, it is thoroughly mixed with water, salts, soot or gastric juices. University of Minnesota, Duluth, researchers Stephen Downing and Wilmar Salo, however, believe they've found the perfect organism for producing pure, clean mucus.

This creature is the hagfish, a purely marine cousin to the lamprey. One fifteen-inch hagfish can, when irritated, produce enough instant slime to jell a whole bucketful of seawater.

"It's as clean a source as you can get," said Downing, an associate professor of biomedical anatomy. "That's what's hampered mucus research elsewhere ... the source is often contaminated."

Downing and Salo, working with Robert Spitzer and Elizabeth Koch of Chicago Medical School, have found that if they hold an anesthetized hagfish over a beaker and give it a mild electric shock, they can get large drops of a material which, if added to seawater, will form cupfuls of stiff, mucous jelly, laced with white fibers. The mucus and fibers come out of microscopic packets that burst when they touch water, releasing their contents.

(MORE)

The researchers have found that they can separate the fiber packets from the mucus packets before either of them opens, so they can work with quantities of exceptionally pure mucus. To this they can add water or various solutions of calcium, potassium or sodium salts. They can see how the mucus behaves at different temperatures or in combination with different chemicals. This in turn will tell them something about the chemistry of mucus, how, for instance, it manages to absorb so much water that a few drops can jell a cupful of water.

"We think it will permit us to look very carefully at what is involved in forming mucus gels, what factors control viscosity. It is a nice chance to do a biochemical analysis in a clean, uncontaminated, pure source," Downing said.

Understanding the way mucus works may, down the line, answer such questions as why children with cystic fibrosis have much thicker mucus than normal children do. Right now, no one knows whether victims of cystic fibrosis have mucus that is chemically different from mucus in normal people, or whether, because they secrete large amounts of salts, the mucus simply behaves differently.

"The mucus research is very basic research," Downing said. "We do not know the biochemical similarities between humans, other mammals, and hagfish. There is mucus in various mammalian systems: in the respiratory tract, the male and female reproductive systems, the digestive system. All have glands and cells that play a role in mucus secretion. The malfunctions in some of these systems may be from abnormal mucus and mucus behavior."

Downing doesn't expect hagfish mucus to be identical to mammalian mucus, however. "Even in the human," he said, "the respiratory tract mucus is different from that of the digestive or reproductive tracts. Yet there are probably common properties."

Certainly mucus cells look much the same in all animals and the way mucus is made and packaged in small sacs within these cells is quite similar. The beauty of the hagfish is that it gives researchers a clean, uncontaminated model for studying the basic behavior of molecules that produce a gel-like mucus.

(MORE)

Since in nature the hagfish produces a stiff slime, reinforced with tough, white fibers, the reinforcing threads, too, pique the researchers' curiosity. How can something roughly two feet long and about as thick as a spider web be packed into a cell the size of a speck of pepper? Further, the threads account for most of the stiffness of the jelly the hagfish forms. Tough and strong, they can be wound up on a glass rod and removed from the jelly, leaving behind a syrupy mucus.

The role slime plays in the hagfish's life is not fully known. There's reason to believe it may be an effective defense. A predator that bites a hagfish receives a suffocating snoutful of slime, which clogs its gills and mouth. Larger predators may swallow hagfish whole, but fishermen tell of finding hagfish leaving eviscerated fish. If the stories are true, Downing said, a hagfish may survive being swallowed and eat its way free, which suggests that mucus may protect a hagfish from a predator's digestion much the way mucus in the human stomach protects it from its own digestive juices.

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(AO,4;B1,4,5;CO,4,23;DO,4;EO,1,4,4b)

UNIVERSITY OF MINNESOTA
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100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 11, 1982

NEWS PEOPLE: For further information
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REGENTS APPROVE HOLD
ON HOSPITAL CONSTRUCTION

(FOR IMMEDIATE RELEASE)

The University of Minnesota needs a new core hospital of significant size, but the margin of safety in the current plan to pay for it is not large enough, according to the findings of a Washington health care consultant.

The findings were reported today (Thursday) to the university's Board of Regents by consultant Robert Derzon, Lewin and Associates Inc., along with his recommendations that the university scale down the project somewhat, find better financing terms and refrain from letting new construction contracts for the next four months.

Derzon's report listed several major points:

--University Hospitals are an "indispensable health care and educational asset" to the state and the university and "the need for a core hospital is indisputable."

--The physical facilities of the current structure are "in large measure deplorable."

--Under current market conditions, at a 12 percent interest rate, the project as currently planned would cost the hospital almost \$2 million a month for 30 years, "a total of \$706 million for \$105 million of bricks and mortar. As far as we know, no other U.S. teaching hospital or university has ever had to incur a burden of this magnitude." Under current plans, the new facility would cost \$154 million and would be built with \$190 million raised through the sale of state general obligation bonds that would be paid off through patient revenue.

--Although demand for University Hospitals service is strong, several factors make future demand levels uncertain. "For a project of this size, the University should assume a level of inpatient demand of 175,000 days of care per year, a level

(MORE)

11 percent below anticipated 1981-82 experience and 8 percent below the 190,000 days projected in the feasibility study."

--In the past decade, critical changes in state tax revenue, interest rates and health care legislation have occurred. "The force of these recent changes and the uncertainties that accompany them make this project in its current form an unacceptable risk for the Hospitals and the regents."

"These findings indicate that University Hospitals must be replaced under at best uncertain, at worst, adverse, conditions," the report states.

After hearing the report, Wenda Moore, chairman of the board, spoke on behalf of her motion to take time to study the project's size and the method of financing.

"First and most important is the fact that we do need a new major university hospital," Moore said. "Because of the changed fiscal climate and enormous interest rates, we cannot move ahead with the project as currently designed. We must re-examine the financial prospects, and we need to redesign the scope of the building."

The motion asked that President C. Peter Magrath and members of the administration return with a new set of recommendations on hospital size and funding "as soon as possible" and was given unanimous approval by the board.

Derzon told the board the findings were based "partly on data and its analysis, the best data we could find, and partly on judgment."

One of several factors considered by Derzon and his colleagues Lucy Johns and Michael Watt was demand for University Hospitals service, which comes from two directions -- patients, and faculty members who need a teaching facility. But patient demand at University Hospitals and throughout Minnesota is "in a dynamic state," Johns said, and it is not safe to predict its future direction too closely. Johns said patient demand is strong now, but subject to change.

Faculty demand will remain high, despite the fact that nearly three quarters of University Hospitals teaching is currently being done off campus, she said. The current level of off-campus teaching contradicts criticism of the project's size by those who say it could be reduced if more teaching were done at other facilities, she said.

(MORE)

The Derzon report further recommends that project planners shoot for a total of 625 beds rather than the currently planned-for 719, and that most of the acute care nursing units be moved into the new building.

Derzon said that while there are other university hospital projects that are larger in terms of building size and bed numbers, the University of Minnesota project is the largest in terms of bonding level. "What distinguishes this project so much is that the bonding capability rests on the back of patient revenues," he said.

Derzon said such a high level of borrowing could push the amount patients would be charged per day too high.

Magrath, who announced his plans yesterday to ask the board today for a four-month study period, said that he has been convinced for years the university needs a major new teaching hospital and is still convinced. "It's a superb operation because of the staff, not the facility," he said. "But we have a responsibility to the future."

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MARCH 12, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
March 17-23

- Wed., March 17--North Star Gallery: Drawings by Linda Henderson. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 17--Goldstein Gallery: "Latvian Mittens: Traditional Designs and Techniques," mittens and folk costumes coordinated by Lizbeth Upitis, weaver. 241 McNeal Hall, St. Paul campus. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through March 26.
- Wed., March 17--The Gallery: Paintings by Robert Fisch. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through March 26. Free.
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- Wed., March 17--Jaques Gallery: Paintings by Maynard Reece. Bell Museum of Natural History. 10 a.m.-3 p.m. Tues.-Fri.; 9 a.m.-5 p.m. Sat.; 1-5 p.m. Sun. Through April 17. Free.
- Thurs., March 18--University Film Society: "Cafe Express" (Italy, 1981), 7:30 p.m.; "Infra Man" (Hong Kong, 1979), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Fri., March 19--University Film Society: "Cafe Express" (Italy, 1981), 7:30 p.m.; "Infra Man" (Hong Kong, 1979), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Sat., March 20--University Film Society: "Cafe Express" (Italy, 1981), 7:30 p.m.; "Infra Man" (Hong Kong, 1979), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Sat., March 20--Dance: Pilobolus Dance Theatre. Northrop Aud. 8 p.m. \$7-\$10.50. Tickets and reservations at 105 Northrop, 373-2345, and Dayton's.
- Sun., March 21--University Film Society: "Cafe Express" (Italy, 1981), 7:30 p.m.; "Infra Man" (Hong Kong, 1979), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Mon., March 22--University Gallery: "Marquee on Main Street: Jack Liebenberg's Movie Theaters, 1928-1941." Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Through April 25. Free.
- Mon., March 22--University Film Society: "Cafe Express" (Italy, 1981), 7:30 p.m.; "Infra Man" (Hong Kong, 1979), 9:30 p.m. Bell Museum of Natural History aud. \$3.

UNIVERSITY OF MINNESOTA
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100 CHURCH ST. S.E.
MINNEAPOLIS, MINNESOTA 55455
MARCH 12, 1982

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NEWS PEOPLE: For further information
contact ELIZABETH PETRANGELO, (612) 373-7510

REGENTS RAISE TUITION,
HEAR LATEST ON DOME

(FOR IMMEDIATE RELEASE)

Students at the University of Minnesota will be paying 22 percent more to go to school next fall, with 15 percent of that increase the direct result of state cuts in the university's budget.

By a vote of 11-1 today (Friday), the Board of Regents voted to increase tuition by 10 percent and to add to that a 15 percent surcharge that would expire at the end of the 1982-83 academic year. At the same time, the regents voted to drop a 3 percent charge students have been paying this year to raise money for library acquisitions and instructional equipment.

Currently, a student in the College of Liberal Arts, the university's largest college, pays \$351 per quarter.

The board voted to approve the administration recommendation after being presented with optional formulas that would have meant lower tuition surcharges but bigger cuts in the university's budget, including the layoff of faculty members.

"The 15 percent surcharge is regrettable, but the options you've laid out are even more regrettable," Rose Johnson, a student representative to the board, told the regents.

Regent David Roe voted against the motion "as a protest to those in Washington who are sticking it to these young folks in terms of aid and maybe also as a message ... to the members of the state legislature that when they're considering the problems of this state, they'd better take a good look at education."

The 15 percent surcharge will raise about \$8.2 million of the \$26.6 million the university has lost from its state appropriation for 1981-83 because of Minnesota's poor fiscal health. Cuts in academic programs and service and support units will make up the rest of the total.

(MORE)

Several regents suggested possible ways of changing the way tuition is charged in the future to make sure students aren't priced out of the university. Basing tuition on a student's ability to pay or charging more for those programs that train students for high-income-producing careers were among the suggestions.

But President C. Peter Magrath cautioned that while all options should be looked at, care must be taken not to set up a system that would be impossible to administer, and that education must not be looked at as a benefit just for the individual involved.

"The concept of relating tuition to total earning power makes sense only if we assume the student's ability to borrow," said Minneapolis regent David Lebedoff. Such a system could trap poor students into taking only inexpensive courses of study that might exclude them from such fields as engineering and medicine.

At the same meeting, Magrath told the board he will recommend approval of a proposed contract with the Metropolitan Sports Facilities Commission that would allow the football Gophers to play in the new domed stadium only if two issues are resolved.

"First, we need a guarantee against a potential loss of income if attendance doesn't rise enough to cover the cost of moving," he said. The two sides also need to arrive at more satisfactory wording of a clause that covers a possible reduction in the stadium admissions tax. The commission is suggesting that the university pay rent if the admissions tax is reduced, he said.

Magrath told the board that university officials have taken a very conservative approach in negotiating the contract to make sure the financially-troubled university doesn't lose money. The current proposal would mean a loss to the university of about \$47,000 a year.

Paul Giel, director of men's intercollegiate athletics, spoke strongly in favor of moving to the dome, saying the projections are conservative and the \$47,000 difference might not materialize. "It seems to me that we have enough escape clauses for the first three years that we could walk away anytime and come back to Memorial Stadium," he said.

-UNS-

(AO,1;B1;CO,1;F3;E15)

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100 CHURCH ST. S.E.
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MARCH 17, 1982

NEWS PEOPLE: For further information
contact PAUL DIENHART, (612) 373-7512

PROGRAM HELPS MINORITY STUDENTS
PREPARE FOR MEDICAL SCHOOL ADMISSION

(FOR IMMEDIATE RELEASE)

Minority students preparing to take admission tests for medical school, dentistry school or a school of veterinary medicine are eligible for an intensive five-week review program in science concepts covered in the admission tests. The program begins June 14 at the University of Minnesota.

The program runs about five hours a day, five days a week. In addition to reviewing key concepts in biology, chemistry, physics and mathematics, the program teaches study and test-taking skills. There will also be opportunities for visits to area hospitals and clinics. A program of social and cultural events is being planned as well.

Books and tuition are free, but a \$25 registration fee must be paid by March 31. Any minority or disadvantaged college student preparing to take an admission test in the next year is eligible.

To obtain registration information and materials contact Linda Omizo at the Martin Luther King Program, 19 Johnston Hall, 101 Pleasant St. S.E., University of Minnesota, Minneapolis, MN 55455, telephone (612) 373-9739.

The program is sponsored by the University of Minnesota's Martin Luther King Program and Health Sciences Student Affairs Office.

-UNS-

(AO,8;BL,17;CO,8;DO,8;G15)

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MARCH 17, 1982

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NEWS PEOPLE: For further information
contact JUDITH RAUNIG-GRAHAM, (612) 373-7514

ART EXHIBIT GIVES GLIMPSE
OF UNDERGROUND SOVIET CULTURE

(FOR IMMEDIATE RELEASE)

The work of approximately 50 Soviet artists -- both emigres and residents of Russia -- will be exhibited at University Gallery in Northrop Auditorium on the University of Minnesota Minneapolis campus April 5 through May 2.

"Non-official Soviet Art, Recent Works," will focus on the work of artists whose work expresses personal ideals rather than the message of the state. The approximately 70 works range in style from abstract expressionism, surrealism and pure geometrics to pop art, realism and conceptual art.

"This is the first opportunity for people in this area to see this kind of exhibition," said Lyndel King, director of University Gallery. "The names of the painters won't necessarily be familiar to viewers, but it should be interesting to see how the creative process works in a situation that is completely different from the one we have in this country. Some of the artists have had some exposure to Western art, while others have worked in isolation."

Most of the works in the exhibit are from the collections of Norton Dodge, director of the Center for Contemporary Russian Art in America in New York; Ludmila Kusnetsova, who recently emigrated from the Soviet Union and now lives in North Dakota; and Henry Shapiro, a former Moscow correspondent for United Press International.

The collectors will take part in a seminar on Soviet culture to be sponsored by the gallery April 16 through 18. Exiled Soviet dissident Alexander Ginzburg and Harrison Salisbury, a former New York Times editor and Moscow correspondent, will also take part in the seminar.

(MORE)

Some of the works show obvious anti-Soviet ideas, while others do not, according to Laura Andrews, spokesperson for the gallery. She said in areas outside Moscow and Leningrad the line between unofficial and official artists is blurred, because a wider variety of styles is tolerated under the official banner. Some of the artists were branded as non-official because of their participation in underground art exhibitions, she said.

The non-official art movement in the Soviet Union has been traced to 1957 when an international art exhibition at the Sixth World Festival of Youth and Students in Moscow gave many young Soviet artists their first look at contemporary Western art.

During the mid 1960s non-official Soviet art was exhibited in Paris and London; intellectuals and others in the Soviet Union began giving private showings. Such private displays, however, became difficult because of a Soviet regulation that all art exhibitions required review and approval by the Union of Artists. In 1974 an exhibition of non-official art displayed on an empty lot was plowed under by bulldozers.

Both the exhibition and the seminar are open to the public at no charge. A reception for the exhibition will be held in the gallery from 7 to 10 p.m. April 16.

Gallery hours are 11 a.m. to 4 p.m. Monday, Wednesday and Friday; 11 a.m. to 8 p.m. Tuesday and Thursday; and 2 to 5 p.m. Sunday.

-UNS-

(AO,2,2a;BI,13;CO,2,2a;DO,2,2a;EO,2,2a)

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MARCH 19, 1982

NEWS PEOPLE: For further information
contact RALPH HEUSSNER, (612) 373-5830

AUSTRALIAN EPIDEMIOLOGIST
HEADS U OF M LARGE ANIMAL CLINIC

(FOR IMMEDIATE RELEASE)

Roger S. Morris, the former head of the epidemiology branch of the Australian Bureau of Animal Health, has joined the University of Minnesota's College of Veterinary Medicine as chairman of the department of large animal clinical sciences.

Morris, 39, has also served on the faculty of the University of Melbourne, Australia, specializing in veterinary preventive medicine and animal health economics.

The author of more than 80 professional and scientific papers, Morris has served as a consultant on animal health in several Third World countries, working mainly on economically beneficial systems of providing veterinary services to livestock owners.

Morris designed and implemented the Australian National Animal Disease Information System, a network of 21 minicomputers located throughout the country. The system monitors disease in livestock herds and helps field veterinarians control major animal diseases more quickly and efficiently.

"As an epidemiologist I'm interested in working out better and more cost-effective ways of improving the health status of animal populations, by working in close collaboration with livestock owners and veterinarians, especially those in private practice," Morris said. "To do this as effectively as possible, we need to make use of such aids as computers, which enable us to interpret much more precisely what is happening in a group of animals."

One of the approaches Morris has developed is the use of computer models of animal diseases, which combines the best available technical and farm data to predict the effects of a control program for problems like mastitis or infertility.

"When we combine this with field research, we get more comprehensive and useful results at lower cost and we can present our findings in a way which makes them more directly relevant to an individual livestock owner's problems.

"We aim to emphasize how veterinarians and animal owners can work in close cooperation on health management in livestock rather than giving undue emphasis to solving crises," Morris said.

"Although our main effort will be concentrated on food animals, we will also be strengthening our activities with the horse-owning public," he said.

Morris is married and has two children and lives in Falcon Heights.

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(AO,30;B1,3;CO,30;DO,30;E30)

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MARCH 19, 1982

NEWS PEOPLE: For further information
contact PAT KASZUBA, (612) 373-7516

LECTURES COVER ASPECTS
OF HUMANS IN SPACE

(FOR IMMEDIATE RELEASE)

Human movement into space is the subject of a series of five lectures sponsored by the University of Minnesota chapter of the L5 Society for Space Development.

The series will begin Thursday, April 8, with a lecture on "Space Industry and its Economic Impacts" by Earl Joseph, staff futurist for Univac. Joseph will talk about current and potential commercial uses of the space shuttle.

"The Military in Space" will be discussed by J. Edward Anderson, a University of Minnesota professor of mechanical engineering, on April 15.

Calvin Alexander, a professor of geology at the university, will discuss the potential for the mining of asteroids. His lecture will be given May 6.

On May 13 two St. Olaf College professors, Howard Thorsheim and Bruce Roberts, will discuss the long-term impact of space colonization.

In the final lecture May 20, Bob Fransen, an executive at U.S. Satellite Broadcasting and Hubbard Broadcasting, will discuss the impact of satellites on the communication industry.

Each lecture will be presented, free of charge, at 12:15 p.m. and repeated at 7 p.m. All sessions will be held on the Minneapolis campus, either in Coffman Union on the east bank or in the West Bank Union.

For further information, contact Dan Boorsma, L5 Society, 925 17th Ave. S., Minneapolis, MN 55414, telephone 379-9149 or 623-1047.

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MARCH 19, 1982

NEWS PEOPLE: For further information
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MINNESOTA TEAM TAKES TOP HONORS
IN REGIONAL MOOT COURT COMPETITION

(FOR IMMEDIATE RELEASE)

A team of law students from the University of Minnesota took first place in the International Law Moot Court regional competition in Chicago March 13. The team will now go to the national competition, and could advance to the international round in Washington in April.

The team of second-year law students -- Kristin Arneson, Jonathan Bye, Erin Jordahl, Richard Morgan and Debra Page -- was undefeated in the competition among nine teams, including those from Notre Dame and Northwestern universities.

In moot court competitions law students practice arguing hypothetical cases. The arguments in Chicago involved a mythical country that violates the human rights of its citizens during a revolution. Refugees flee to other countries, creating problems with immigration laws.

The Minnesota students will compete with about 10 teams in the national round. If they are the national winner they will compete with some 60 teams in the international round.

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MARCH 19, 1982

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NEWS PEOPLE: For further information
contact PAT KASZUBA, (612) 373-7516

SUMMER ARTS STUDY OFFERED
IN NORTH WOODS ENVIRONMENT

(FOR IMMEDIATE RELEASE)

Quadna Mountain Resort in Minnesota's north woods will be the setting for the University of Minnesota summer arts study center June 13 through Aug. 13.

Registration is now open for more than 40 one-week workshops in writing and book arts; drawing and painting; ceramics, glassworking and jewelry design; fiber and fabric art; photography and printworking; storytelling; arts therapy; and dulcimer making and playing.

Most of the workshops can be taken for graduate or undergraduate transferable quarter credit. Tuition for each workshop is \$112; some workshops also carry fees for materials. Accommodations at the resort are extra.

Among the artists-in-residence who will be leading workshops will be St. Paul writer Patricia Hampl, author of "A Romantic Education"; Cheng-Khee Chee, a nationally known watercolorist from Duluth; Rimas VisGirda, who is known for his work in experimental ceramics; Carloly Vosburg Hall, a fabric sculptor from Birmingham, Mich.; nature photographer Craig Blacklock, who with his father, Les Blacklock, compiled the book "Our Minnesota"; and Sonia Landy Sheridan, a professor emeritus of the Art Institute of Chicago who has pioneered in such fields as photocopy art and instant photography.

The Quadna Mountain Resort is about 160 miles north of the Twin Cities near Hill City. The resort compound has camping and motel facilities, townhouses with kitchens, restaurant and bar service, and recreational facilities including pools, saunas and golf and tennis courts.

Registration is open to anyone, but space is limited so early registration is advised. Senior citizens may attend classes at a reduced rate if space is available.

For more information or to request a portfolio on the program, contact Vicki Rosenberg, Summer Arts Study Center, 320 Westbrook Hall, 77 Pleasant St. S.E., University of Minnesota, Minneapolis, MN 55455, telephone (612) 373-4947.

-UNS-

(AO,2,2a;B8;CO,2,2a;
DO,2,2a;E2,2a)

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TELEPHONE: (612) 373-5193
MARCH 19, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
March 24-30

- Wed., March 24--North Star Gallery: Drawings by Linda Henderson. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 24--Goldstein Gallery: "Latvian Mittens: Traditional Designs and Techniques," mittens and folk costumes coordinated by Lizbeth Uptis, weaver. 241 McNeal Hall, St. Paul campus. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through March 26. Free.
- Wed., March 24--The Gallery: Paintings by Robert Fisch. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through March 26. Free.
- Wed., March 24--Jaques Gallery: Paintings by Maynard Reece. Bell Museum of Natural History. 10 a.m.-3 p.m. Tues.-Fri.; 9 a.m.-5 p.m. Sat.; 1-5 p.m. Sun. Through April 17. Free.
- Wed., March 24--University Gallery: "Marquee on Main Street: Jack Liebenberg's Deco Movie Theaters, 1928-41." Northrop Aud. 11 a.m.-4 p.m. Mon., Wed., and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Through April 25. Free.
- Thurs., March 25--University Film Society: "Special Treatment" (Yugoslavia), 7:30 p.m.; "The Fragrance of Wild Flowers" (Yugoslavia), 9:15 p.m. Bell Museum of Natural History aud. \$3.
- Fri., March 26--University Film Society: "Special Treatment" (Yugoslavia), 7:30 p.m.; "The Fragrance of Wild Flowers" (Yugoslavia), 9:15 p.m. 125 Willey Hall. \$3.
- Sat., March 27--University Film Society: "Special Treatment" (Yugoslavia), 7:30 p.m.; "The Fragrance of Wild Flowers" (Yugoslavia), 9:15 p.m. Bell Museum of Natural History aud. \$3.
- Sat., March 27--Dance: Mazowsze Polish Dance Company. Northrop Aud. 8 p.m. \$7-\$13. Tickets at 105 Northrop and Dayton's. Reservations: 373-2345.
- Sun., March 28--University Film Society: "Special Treatment" (Yugoslavia), 7:30 p.m.; "The Fragrance of Wild Flowers" (Yugoslavia), 9:15 p.m. Bell Museum of Natural History aud. \$3.
- Mon., March 29--North Star Gallery: "Minnesota Exteriors," photography by Steve Kenow. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through April 16. Free.
- Mon., March 29--The Gallery: "Facets," color photography by Ron Ostrow. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through April 16. Free.

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(A0;B1;F2)

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 22, 1982

PROFESSIONAL WOMEN MORE PRONE
TO SUICIDE AND DEPRESSION

By Barbara Scott Murdock
University News Service

Winston Churchill called it "Black Dog." Abraham Lincoln took to the woods to fight it off. Both Martin Luther and Charles Darwin grappled with it periodically.

The complaint is depression -- deep, debilitating, black gloom.

Depression as an illness is now thought to afflict twice as many women as men, may be hereditary and is certainly associated with family history. Paula Clayton, head of the department of psychiatry at the University of Minnesota, has found that depression afflicts women physicians and Ph.D.s far more than women in the general population and that many of the professional women afflicted with depression come from families with a history of depression.

Intrigued by a report that women physicians commit suicide at three times the rate of women in the general population, Clayton and co-workers at Washington University in St. Louis, Mo., decided to see if depression, which is linked to suicide, is also more common among these and other professional women. They tracked down a large group of women physicians and Ph.D.s in the St. Louis area and did extensive interviews to learn their life histories.

Their first task was to separate depression as an illness from the normal depression that results from severe physical illness or injury, or from bereavement, the loss of someone close and dear.

"Depression is a symptom, a syndrome and a disease," Clayton said, "They are all different. Bereavement is not a disease."

Depressive illness is characterized by low moods for a month or more, difficulty in sleeping, loss of interest in life, love and food, feelings of self-reproach and thoughts of suicide. The average depression -- treated or untreated -- lasts about

(MORE)

six to eight months, and bouts of depression recur.

The researchers looked for predictable patterns or triggers of depression in professional women. Could depression, which can lead to suicide, be related to job stress? Or, since most women entering traditionally male fields encounter prejudice at some time, does frustration or prejudice trigger depression? Because women usually raise the children and follow spouses in their career pursuits, could career interruptions drive some women to despair?

The researchers wondered whether depression might be extremely high among professional women. Though women in the general population become depressed twice as often as men, they are less likely to commit suicide. Only among professional women, especially physicians, does the suicide rate equal the rate among men.

"Women professionals seldom make suicide attempts," Clayton said. "But when they do, they make very serious attempts; they complete the act."

And when the research results came in, it became very clear that many professional women -- both physicians and Ph.D.s -- battle depression. Fifty-one percent of the physicians and 32 percent of the Ph.D.s reported problems with blue moods; 39 percent of the physicians and 30 percent of the Ph.D.s had experienced major depressions at some time in their lives. In the general population, depression strikes somewhere between 3 to 25 percent of all women.

Furthermore, although it was clear that many of these professional women had suffered interruptions of their careers and had met with prejudice and frustration, their depressions were not necessarily related to these stresses. Neither were depressions necessarily tied to premenstrual tensions or to childbirth. And most of the women were successful and satisfied with their jobs. But what did show up in many of the women who suffered from depression was a family history of depression.

"There is no question that there is a familial aspect to depression," Clayton said. Whether it is strictly inherited, chromosome to chromosome, or arises out of the family environment, isn't clear.

(MORE)

Clayton leans toward the view that a susceptibility to depression is inherited. Twin studies, she said, show that identical twins, who form from one egg, are both likely to have depression if one of them has. Fraternal twins, who form from two separate eggs and are not genetically identicals don't show this pattern.

Adoption studies also point this way. Adopted children whose natural mothers had severe bipolar, or manic, depression tend to become depressed far more often than adopted children without that family history. And finally, Clayton said, "There are striking family histories where several members of a family have bipolar depressions."

Nevertheless, Clayton said, "I don't like to have patients think of their depressions as biologic because it gives them the excuse not to do anything. It would be a mistake to think that just because you have this disease that you can't help yourself."

Why depression happens in so many women Ph.D.s and physicians, Clayton can't answer. Since these women are highly intelligent, she looked through the literature for a link between IQ and depression, and found very little. "There may be a link between IQ and suicide," she said. "At least in children, there is a statistical association between higher IQ and depression." But, she added, "People with lower IQs may tend to somatize; they recognize that something is wrong, but put it in their stomach or heart. I find it hard to believe that bright people are more sensitive; they're just more aware of things going on."

There may be a link, she feels, between creativity and a tendency to depression, but emphasizes that creative people are creative in spite of the illness, not because of it.

What may explain why there are so many women physicians who tend toward depression is that people who have experienced depression -- either in themselves or in their families -- may be attracted to work that is oriented toward the relief of pain and suffering.

The fact that many professional women toward moodiness should cause educators to encourage their graduate students to be aware of their moods. Undoubtedly the stress of pursuing a career under frustrating conditions contributes to the development of depression in those with the tendency. Be aware of the problem, Clayton emphasizes, "Don't blame the messenger for delivering the message and fail to deal with the news."

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MARCH 22, 1982

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VAN de VEN NAMED TO 3M
HUMAN SYSTEMS CHAIR AT U OF M

(FOR IMMEDIATE RELEASE)

Andrew H. Van de Ven has been named to the 3M chair in human systems management at the University of Minnesota School of Management.

Van de Ven's research has focused on assessing organization design and performance, organizational problem solving and innovation, group meeting process and inter-organizational relationships. Findings of this research have been published in several professional journals and books including, "Group Techniques for Program Planning" (1975), "Measuring and Assessing Organizations" (1980) and "Perspectives on Organization and Design Behavior" (1981).

Van de Ven brings to the 3M chair an outstanding background in organizational management, David M. Lilly, dean of the School of Management, said. "To study organizations is to study the human network that is the very substance of the organization. His work in organizational context, design and performance places him among the best in the nation. We are very pleased that he has accepted this appointment," Lilly said.

Lewis H. Lehr, chairman and chief executive officer of 3M, said, "Professor Van de Ven's expertise will bring to organizations in the Twin Cities and the state of Minnesota a greater understanding of the challenges facing all of us today in the management of human resources. We are proud to have such an outstanding candidate accept the 3M chair in human systems management."

Van de Ven received his Ph.D. in interdisciplinary program administration from the University of Wisconsin-Madison in 1972, and was on the faculty of Kent State University from 1972 to 1975 and the Wharton School of the University of Pennsylvania from 1975 to 1981. He is also co-director of the Center for the Study of Organizational Innovation at the University of Pennsylvania.

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MARCH 23, 1982

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NOTED CHILDREN'S AUTHOR TO
RECEIVE U OF M KERLAN AWARD

(FOR IMMEDIATE RELEASE)

Jean Craighead George, the author of children's books about nature, will receive the University of Minnesota 1982 Kerlan Award for her contributions to children's literature at a May 12 luncheon at the university.

An exhibit of her books and manuscripts from the university's Kerlan Collection of Children's Literature will be on display in Walter Library in May.

George's books have received many honors, including the Newbery Award for "Julie of the Wolves," which was National Book Award Finalist, and the Newbery Award Honor Book for "My Side of the Mountain." The American Nature Society presented her the Eva L. Gordon Award for her nature books for children. Her books have been translated into nine languages.

The Kerlan Collection is a research center of children's books, manuscripts and original art. Past winners of the Kerlan Award, which was established in 1975, include Marguerite Henry, Wanda Gag, Glen Rounds and Tomie de Paola.

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(AO,2,2a;B1,11)

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MARCH 23, 1982

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NEWS PEOPLE: For further information
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MOUNT ST. HELENS STUDY SHOWS
RESIDENTS RELUCTANT TO MOVE

(FOR IMMEDIATE RELEASE)

Mount St. Helens is once again rumbling and spewing, but there hasn't been a mass exodus of nearby residents and there probably won't be, a University of Minnesota sociologist predicts.

"Moving for an environmental reason is just not the answer for most people," said Robert Leik, head of a team that has studied how families in three Washington communities are dealing with the almost constant threat.

A major finding of the study is the reluctance of families to move away from the threat of floods and ashfall. "A fair number of people did discuss evacuating and some did evacuate," he said. "But it turns out that a very small percentage will consider a move as a solution to an environmental problem like this. The same thing is true at Love Canal or Three Mile Island or any other major environmental problem."

Part of the reluctance to relocate comes from the difficulty of selling homes and businesses and in finding new jobs, Leik said. But another important factor is the unwillingness to admit failure. "If you move solely because of stress it is sort of backing out, admitting defeat and it leaves you open to a lot of unknowns. It doesn't seem to people to be nearly as viable a choice to move away from something as to move to something. Most of the moving that goes on is to a better home, a better job or a better neighborhood. That's the carrot approach, but the stick approach to moving is just not acceptable."

The team studied families in the Washington communities of Longview-Kelso, which is about 35 miles from the volcano; Yakima, which is about 90 miles from Mount St. Helens; and Pullman, which is about 1,500 miles away. All three have been affected by ash fallout -- ash clouds darkened Yakima for about 36 hours after the massive

(MORE)

eruption on May 18, 1980 -- and Longview-Kelso faces the added threat of flooding from the Toutle River.

Leik, who is director of the University of Minnesota Family Study Center, and his colleagues Sheila Leik, Knut Ekker and Gregory Gifford studied the results of in-depth interviews with members of 60 families from the three sites. The father, mother and a teen-ager from each family were interviewed. Telephone sampling was also conducted on 152 other households in the three communities.

"We had some cases where people would say, 'Well, no we don't have a father, a mother and a teen-ager, but we've sure got a lot of problems. Can't we talk to you about them?' The stress is a very real concern for a lot of these people; there were, and still are, a lot of very nervous people out there," Leik said.

The in-depth interviews included a stress analysis graph that required participants to rate their levels of anxiety from zero to 10 before, during and after volcanic activity.

"One of our respondents worked on the mountain -- he's a lumber person -- he had 10 straight across the stress graph," Leik said. "He's freaked out all the time. He's very much afraid for his life working up there, but he's doing it. He can't see letting his family starve or taking a chance on living somewhere else."

The Mount St. Helens study and others like it indicate the federal government is wrong to believe that large numbers of people will be willing to relocate instantly when they hear a nuclear attack is imminent. "They're talking about saving 80 percent of the population by relocation. That's crap," Leik said. "It's absolutely not going to happen. There's no way in the world that it will happen."

"I think we need a lot more evidence of this sort that isn't necessarily political and demonstrates the little bit of Harry Truman -- the Washington state Harry Truman -- in everybody."

Truman was the man who lived at the foot of the mountain and received nationwide publicity for his refusals to leave his Spirit Lake home. He and about 60 others were killed in the May 18 eruption. Many of the bodies -- including Truman's -- were never recovered.

(MORE)

The report makes several recommendations for dealing with natural disasters including:

--The expansion of mental health services in communities where disasters strike. "Our conversations with clinic representatives made it evident that major stressors for an entire population cannot be handled by the usual structure for mental health assistance," the report says. The lack of both funds and staff training geared toward individual problems are cited as impediments.

--The development of a policy for residential relocation for victims without loss of equity in homes or businesses. Current insurance guidelines don't accept the need to move and an inability to sell property as a basis for reimbursement.

--Local centers that can provide better and more centralized information on ways of coping with the aftermath of natural disasters.

"I have an impression that there is really very little known about what it is that would be necessary for people to put up with an extraordinary environmental problem like this and live reasonably normal lives," Leik said.

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UNIVERSITY OF MINNESOTA
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100 CHURCH ST. S.E.
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MARCH 25, 1982

NEWS PEOPLE: For further information
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STATE'S MANGANESE, URANIUM
ESTIMATED BY GEOLOGICAL SURVEY

(FOR IMMEDIATE RELEASE)

Sizable resources of manganese exist in the Cuyuna range, an old iron mining district in Crow Wing County, according to a recent report by the Minnesota Geological Survey at the University of Minnesota.

Manganese is an indispensable metal for making steel. Currently, 98 percent of the manganese used by the United States is imported.

The Cuyuna range resource is low grade and hence is only marginally economical today, but researchers R.J. Beltrame, Richard C. Holtzman and Timothy E. Wahl believe that it could supply the nation's demand for 14 years.

Were imports of manganese to be cut off, government and industry inventories could meet U.S. demand for less than two years. Additional research would be required for the manganese in the Cuyuna range to meet U.S. needs if imports were cut off, the report noted.

The appraisal of the potentially strategic resource is published as Report of Investigations 24. The cost is \$4.

In another report, the Survey found that several areas in Minnesota have a geologically reasonable potential for uranium deposits in that their geology is similar to the geology of places where ore deposits have been discovered. However, geological exploration of most "favorable environments" has demonstrated that they do not contain any uranium deposits of commercial size or grade.

That is the conclusion of G.B. Morey, chief geologist of the Survey, in Information Circular 19, "Geologic Terranes of Minnesota and their Uranium Potential."

(MORE)

In a related study, Report of Investigations 25 entitled "Radon Activity in Ground Waters of Seven Test Areas in Minnesota," (\$5) researchers concluded that the occurrences of radon gas, a byproduct of uranium decay, were likely to be "false anomalies" related to natural, non-economic concentrations of radium rather than uranium.

The seven test areas were east-central Minnesota south and west of Duluth -- including Moose Lake, Sandstone, and Mora, and bounded on the west by Mille Lacs Lake -- and smaller areas near Alexandria, Little Falls, Benson, Clarkfield, Sanborn-Jeffers, and Sleepy Eye.

The researchers found that only high-radon samples from east-central Minnesota and the Sanborn-Jeffers areas came from areas that have other geological and geochemical characteristics that possibly indicate some natural concentration of uranium.

Copies of the three reports are available from the Minnesota Geological Survey, 1633 Eustis Street, St. Paul, MN 55108. Orders must be prepaid and include \$1 for postage and handling. Minnesota residents must enclose 5 percent sales tax.

-UNS-

(AO,18;B1;CO,18)

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MARCH 25, 1982

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U OF M NAMED SPECIALIZED CENTER
FOR CYSTIC FIBROSIS RESEARCH

(FOR IMMEDIATE RELEASE)

The National Institutes of Health (NIH) has designated the University of Minnesota as a Specialized Center of Research (SCOR) into cystic fibrosis, the most common fatal genetic disorder in American children.

A five-year comprehensive research effort, involving 12 investigators and eight basic and clinical research projects, will focus on early detection of disease complications and how the complications injure the lungs.

"We may be able -- if we are lucky -- to come closer to a test that would determine the genetic carriers of the CF gene," said Dr. Warren Warwick, professor of pediatrics at the Medical School and director of the research center.

In cystic fibrosis, the exocrine glands malfunction, producing abnormally thick and sticky mucus that clogs the lungs and digestive system. Breathing is obstructed and lung infections commonly occur because bacteria trapped in the mucus are not cleared from the respiratory tract. Infections coupled with airway obstruction in the lungs cause about 90 percent of the deaths in cystic fibrosis patients.

The university's Cystic Fibrosis Center, one of the largest in the country with 350 patients from a five-state region, will receive \$2.5 million to support research in the following areas:

-- Studies of mitochondrial NADH dehydrogenase, a deranged enzyme that is believed to be a marker of the basic genetic abnormality in cystic fibrosis.

-- Home measurements using computers for early detection of disease problems and for adjustment of the treatment.

-- The use of a new pulmonary function test that will enable clinicians to detect the slow progression of lung infections in infants through school age children.

(MORE)

-- A study of the chemical properties of bronchial secretions in cystic fibrosis patients, and an analysis of the function of white blood cells in their lungs and blood.

The major obstacle to effective care, according to Warwick, remains improper diagnosis. As many as three of four children born with cystic fibrosis will die undiagnosed, he said.

"This is a very poorly diagnosed disease because no symptom is unique," Warwick said. The respiratory symptoms may be mistakenly attributed to chronic bronchitis, asthma, whooping cough and pneumonia. The intestinal symptoms resemble malabsorption, chronic diarrhea and celiac disease.

Although nearly 75 percent of the children who have not been diagnosed die in the first two years of life, patients have a better than 50 percent chance of living beyond 25 years of age if they receive care in one of the 120 cystic fibrosis research centers throughout the country, Warwick said.

"Our goal is to improve the survival rate and to offer these patients the opportunity to live a normal life," he said.

The NIH-SCOR projects are awarded once every five years and are based on excellence in clinical care of patients plus the potential for research to improve care for special disease problems. "We are unique in that we are the only CF center to be designated as a NIH Specialized Center of Research," Warwick said.

The \$2.5 million infusion of federal funds will allow the university scientists "to do as much each year as we have been able to accomplish in the last four or five years," Warwick said.

"Our past support from the community, the patients and their families, garage sales, tea parties and small donations were responsible for starting these research projects," he said. "We still need this support to develop the 20-plus projects that were not included in the SCOR funding."

Cystic fibrosis occurs in one of every 1,000 live births with one in every 16 persons carrying the recessive gene believed to cause the disease. If two carriers have children, there's a one in four chance each child will be affected. Approximately 3,000 to 4,000 new cases of cystic fibrosis are diagnosed every year and an estimated 30,000 Americans suffer from the disease.

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MARCH 25, 1982

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CORRECTION

A University of Minnesota News Service release dated March 23, 1982, and titled "MOUNT ST. HELENS STUDY SHOWS RESIDENTS RELUCTANT TO MOVE" contained two errors.

On page one, the last paragraph, the third line should read: "Helens; and Pullman, which is about 250 miles away."

One page two, the first paragraph, second line, Toutle River should be changed to Cowlitz River.

Leik and his colleagues Sheila Leik, Knut Ekker and Gregory Gifford also worked with a field team from Washington State University.

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(AO,6;B1;CO,6;DO,6;EO,1,6;I6)

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MARCH 26, 1982

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'CLEAR AND PRESENT DANGER,'
ACID RAIN KILLING AQUATIC LIFE

(FOR P.M. RELEASE MARCH 29)

Spring, the season of renewal, takes on a perverse meaning for areas afflicted by acid rain. The sulfuric and nitric acids packed in the winter's snowfall are unloosed suddenly, flowing unabsorbed over the frozen ground to lakes and streams. The aquatic life receives the year's highest concentration of acid just as it begins its growing season.

The summer fishermen may begin to notice that bass and walleye are harder to catch; only the perch seem to be biting. The water around the docks has taken on a wonderful clarity, but the view is of a bottom overgrown with a cobwebby layer of filamentous algae. In following seasons the fishermen begin to go elsewhere.

"Lakes sensitive to acid precipitation can show damaging changes in aquatic life within a decade," said Eville Gorham, a University of Minnesota ecologist and a pioneer in the modern study of acid rain.

It is estimated that acid rain is responsible for killing fish and other aquatic life in thousands of lakes in Sweden, Norway and Ontario and about 200 lakes in the Adirondack Mountains of New York. Many thousands of other lakes and streams are endangered.

Currently the United States has no control programs or standards for acid rain. "Acid rain is a clear and present danger," Gorham said in a speech to the American Chemical Society national meeting in Las Vegas, Nev., Monday (March 29). "What are we waiting for?"

Gorham, a professor of ecology and behavioral biology, estimated that more than 90 percent of the scientists studying acid rain believe it is a serious environmental problem. More and more are saying that some kind of control program is needed now,

(MORE)

even though there is still much that needs to be learned about acid rain.

The chemical reactions that form acid rain are not thoroughly understood. However, it is clear that sulfur and nitrogen oxide gases given off from burning coal and oil are turned into sulfuric and nitric acids in the atmosphere. Winds can carry these acids hundreds or thousands of miles away. The amount of damage caused when the acids precipitate to Earth depends on the rocks and soil in the area.

Rocks and soil containing calcium and magnesium carbonates can buffer acid in much the same way as bicarbonate of soda neutralizes the acid in an upset stomach. Much of the area west of the Mississippi River has soil of this type. But coarse sandy soils low in lime have little natural buffering capacity.

The acidification problem is revealed most dramatically in lakes, the subject of most of the acid rain studies, Gorham said. There is evidence that acid leaches heavy metals like aluminum, lead and mercury from rocks and soil. Aluminum can damage the gills of sensitive fish like bass and walleye. The acid upsets the salt balance in the blood of fish. As the water becomes more acidic there is a progressive elimination of sensitive plants and animals. Water tends to become more transparent as floating algae are replaced by bottom-growing species. Fish show slower growth, less successful spawning, and reduced hatching and produce more malformed embryos. The acid stress following the spring snow melt can result in fish kills.

Although acid rain was first described in 1852 in Manchester, England, modern scientific research has been going on only since the mid-1950s. The beginnings of public concern about the problem in the United States arose only 10 years ago.

Gorham was one of the early investigators -- "if you can call 100 years too late early," he said in an interview. "In 1955 I stumbled on acid rain by accident while I was studying the mineral nutrition of peat bogs in northern England. When the wind blew east from the Irish Sea there was sea salt in the rain. When it blew from the heavily industrialized regions to the south and east the rain contained sulfuric acid."

(MORE)

International attention was drawn to the problem in 1968 when Svante Oden proved biological damage resulted from acid rain in Sweden. Sweden and Norway are hard-hit by acid rain because their soils have poor buffering capacity and they are downwind from industrialized areas of Western Europe.

"In North America there's a pool of acid air pollution over the whole north-eastern part of the continent," Gorham said. "That is the area downwind of the chief coal-using states of Ohio, Illinois and Indiana, which produce about one-quarter of the total U.S. emissions of sulfur oxides."

Gorham said that officials from companies that burn fossil fuels often say they will reduce sulfur and nitric oxide emissions if it can be proven that a certain plant pollutes a specific lake. So far, the pool of pollution has prevented pinpointing the sources of acid rain. Scientists are working on tracing techniques, he said.

Concern over acid rain is so recent that much research remains to be done. This is especially true for damage less obvious than the fish kills in lakes and streams. Evidence suggests that acid in the air may aggravate lung disease and increase mortality, Gorham said. Forests may also be damaged by acid rain, but it's a slower process, perhaps a matter of a century or so. There is some evidence that acid rain can deplete soil of nutrients and poison tree roots with the aluminum it frees from the soil.

"If it could be proved that acid rain damages forests, the paper and timber companies would support controls of acid pollution," Gorham said. "I think that would convince Washington to take some action."

Even while acid rain is creating quarter-inch craters in the marble of the Capitol building, the Reagan administration's position is that more must be learned about acid rain before it can be regulated, Gorham said.

"The utilities and coal companies use this same argument while pointing out weak links in the evidence," he said. "That approach doesn't consider the billions we lose from acid rain corrosion, the possible problems for forests in the Northeast

(MORE)

and for human health, the fishery losses, and the aesthetic damage to lakes and streams. My view is that when you see something causing this amount of damage you had better start now to control it."

Cutting back on sulfur and nitric oxides, the precursors of acid rain, would involve additional pollution-control equipment, conservation and switching to low-sulfur coal and alternative energy sources. Gorham suggested that staged reductions in the oxides begin with a 10 percent cut. "Even if a control bill were to pass now, an official of the Environmental Protection Agency told me it would take 10 years for the actual reduction in oxide emissions to become effective," Gorham said.

This March Minnesota became the first state to pass an acid rain control law. The law sets up a process to establish limits on oxide emissions. By showing Minnesota is serious about cleaning up its sources of acid rain, the law will "lay a foundation for us to go after the other states who are causing 70 percent of our problem," said Arlene Lehto, DFL-Duluth, who sponsored the bill.

Northeastern Minnesota, a region of lakes and forests, has shallow soil similar to areas damaged by acid rain in Scandinavia. A recent state report on acid rain found nearly 1,000 state lakes "extremely sensitive" to acid rain and another 2,000 to 3,000 "potentially sensitive."

"Northeastern Minnesota is not in the worst path of acid rain, but it's a vulnerable ecosystem," said Gorham, who testified in support of Lehto's bill. "If acid rain continues to get worse these sorts of areas will be at risk. I support the state standard because if we're going to get other states to cooperate on reducing emissions we'll have to show we're serious about it ourselves."

Canada is very serious about controlling acid rain, but has been frustrated by the Reagan administration's inaction. The United States exports four times as much sulfur dioxide as it receives from Canada each year. "The United States has no right to dump pollution on its neighbor," said Gorham, who is a Canadian citizen.

Gorham was living in London when the Great Smog of 1952 killed between 2,500 and 4,000 people in a week. The government cleaned London's air at great expense, even though the factors that created the killer smog are still not fully understood. "If we wait until all the evidence is in on acid rain we shall have waited too long," Gorham said.

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(AO,18;B1,2;CO,18;DO,18;EO,1,4b,18,38)

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MARCH 26, 1982

UNIVERSITY OF MINNESOTA, TWIN CITIES, CULTURAL EVENTS
March 31-April 6

- Wed., March 31--North Star Gallery: "Minnesota Exteriors," photography by Steve Kenow. Second level, St. Paul Student Center. 7 a.m.-11 p.m. Mon.-Fri.; noon-11 p.m. Sat. and Sun. Through April 16. Free.
- Wed., March 31--Nash Gallery: "Studio Arts Faculty Biannual Exhibition." Lower level, Willey Hall. 9 a.m.-4:30 p.m. Mon., Tues. and Fri.; 9 a.m.-7 p.m. Wed. and Thurs.; noon-4 p.m. Sat. and Sun. Through April 23. Free.
- Wed., March 31--The Gallery: "Facets," color photography by Ron Ostrow. Lower level, St. Paul Student Center. 9 a.m.-9 p.m. Mon.-Fri.; noon-5 p.m. Sat. and Sun. Through April 16. Free.
- Wed., March 31--Coffman Union Gallery: "A Piece of Cake," sculpture by Deanie Pass, Gallery 1; photographs by Tran Cao Linh, Gallery 2. 10 a.m.-3 p.m. Mon.-Fri.; 10 a.m.-7 p.m. Tues. Through April 14. Free.
- Wed., March 31--Jaques Gallery: Paintings by Maynard Reece. Bell Museum of Natural History. 10 a.m.-3 p.m. Tues.-Fri.; 9 a.m.-5 p.m. Sat.; 1-5 p.m. Sun. Through April 17. Free.
- Wed., March 31--University Gallery: "Marquee on Main Street: Jack Liebenberg's Deco Movie Theaters, 1928-1941." Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Through April 25. Free.
- Wed., March 31--Whole Coffeehouse: George Russell, folk. Coffman Union. Noon. Free.
- Wed., March 31--University Film Society: "Twice a Woman" (Netherlands, 1980), 7:30 p.m.; "Friday" (Netherlands, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Thurs., April 1--Film: "College." Gallery 2, Coffman Union. 1:30 p.m. Free.
- Thurs., April 1--University Film Society: "Twice a Woman" (Netherlands, 1980), 7:30 p.m.; "Friday" (Netherlands, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Fri., April 2--Goldstein Gallery: "Applied Design Undergraduate Show." 241 McNeal Hall, St. Paul. 8:30 a.m.-4:30 p.m. Mon.-Fri. Through April 25. Free.
- Fri., April 2--Literary lecture-discussion: Joseph Brodsky, expatriate Russian poet. Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Fri., April 2--Film: "The Blues Brothers." Theater-lecture hall, Coffman Union. 7 and 9:40 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Fri., April 2--Bijou films: "Ace in the Hole" (Billy Wilder, 1951) and "Sunset Boulevard" (Billy Wilder, 1950). Program hall, West Bank Union (lower concourse). 7:30 p.m. \$2.

(OVER)

- Fri., April 2--University Film Society: "Mark of the Beast" (Netherlands, 1981), 7:30 p.m.; "Flight of Rainbirds" (Netherlands, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Sat., April 3--Film: "The Blues Brothers." Theater-lecture hall, Coffman Union. 7 and 9:40 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sat., April 3--Bijou films: "Ace in the Hole" (Billy Wilder, 1951) and "Sunset Boulevard" (Billy Wilder, 1950). Program hall, West Bank Union (lower concourse). 7:30 p.m. \$2.
- Sat., April 3--University Film Society: "Charlotte" (Netherlands, 1981), 7:30 p.m.; "2 Queens and a King" (Netherlands, 1980), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Sun., April 4--Film: "The Blues Brothers." Theater-lecture hall, Coffman Union. 7 p.m. \$2.50, \$1.50 for U of M students with current fee statement.
- Sun., April 4--University Film Society: "Mark of the Beast" (Netherlands, 1981), 7:30 p.m.; "Charlotte" (Netherlands, 1981), 9:30 p.m. Bell Museum of Natural History aud. \$3.
- Mon., April 5--University Gallery: "Non-Official Soviet Art, Recent Works." Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. and Fri.; 11 a.m.-8 p.m. Tues. and Thurs.; 2-5 p.m. Sun. Through May 2. Free.
- Mon., April 5--Film: "Nowhere But Alaska." Great Hall, Coffman Union. 8 p.m. \$3, \$2 for U of M students with current fee statement.
- Tues., April 6--Film: "The Romantic Rebellion." Gallery 2, Coffman Union. 1:30 p.m. Free.
- Tues., April 6--Dance lecture-demonstration: Ozone Dance School. Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Tues., April 6--Film: "Top Hat" (1935). Theater-lecture hall, Coffman Union. 7:30 p.m. \$1.

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(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. S.E.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 29, 1982

MAPPING THE PATHWAYS OF PAIN
MAY LEAD TO CONTROL OF SUFFERING

By Barbara Scott Murdock
University News Service

No one likes pain, but it serves a purpose. It prompts you to jerk your hand back from a hot stove and to remove your foot from under that of the man next to you on the bus. That done, you'd like to be rid of it.

People with chronic pain, however, simply suffer.

Controlling pain is difficult. So far, most of the drugs known to combat pain have been discovered by chance. And all really strong painkillers are addictive.

Robert Elde and Virginia Seybold of the University of Minnesota Medical School anatomy department and pharmacologist Tony Yaksh of the Mayo Medical School are looking at the nerve pathways that carry pain messages, an approach that may yield help in controlling pain.

Elde and his colleagues have mapped the nerve circuits that transmit pain messages from the skin to the spinal cord. In two papers, one in the December Journal of Neurocytology and the other in the upcoming issue of Neuropeptides, the researchers report what Elde terms "pretty strong evidence" that there is a special chemical messenger for pain -- substance P. In the November Journal of Neurophysiology, they reported the first experimental evidence that pain itself calls up some of the body's natural opiates -- the enkephalins -- to reduce pain.

Learning how pain signals travel to the brain and how the body regulates pain offers the best hope for controlling it, according to Elde. Then researchers can design drugs to block pain messages or work on ways of mobilizing the body's own painkillers.

"If we know the actors in the whole play of pain," Elde said, "that opens the possibility of rational design of drugs. Before 1975, we didn't know the neuro-

(MORE)

transmitters in any one of the links in the pain pathway. Any drug for relief of pain was only encountered by chance.

"Biofeedback, acupuncture and electroacupuncture are fringy, but genuine methods of pain relief," he said. They work by tapping into the body's natural painkilling systems.

Current thinking regards pain as a signal of tissue damage. When you slam a car door on your finger, you mash cells, spill enzymes and release chemicals called kinins. The kinins bind to the naked ends of nerve fibers that carry pain messages. An immediate electrical message runs along the nerve to the spinal cord. There the message is passed on to other nerve cells, or neurons, that carry it to the brain.

But the electrical messages are passed between nerve fibers by chemical messengers that go from one nerve ending to the next. Rather like boats ferrying trucks across a river from one bank to the other, chemical messengers called neurotransmitters carry messages across the gap between one nerve cell and the next.

There are 20 known neurotransmitters, and each has a different effect. Some inhibit, some excite and others modify the electrical impulse in the next neuron in the chain. Substance P excites nerve cells; morphine or the natural opiates of the nervous system have different effects depending on where they are.

"That's why it's so important to know the wiring diagram," Elde said. "In the spinal cord, enkephalins (the natural opiates) modify traffic in the pain pathways. In the brainstem, they regulate respiration; in the limbic system (higher in the brain), they modify euphoria and depression. The function of enkephalins varies according to what part of the circuit they are in."

Elde and his colleagues have worked out the wiring diagram for the nerve cells that carry pain messages from the skin to the spinal cord and have found that the nerve cells contain certain neurotransmitters, one of which is substance P. In her current article in *Neuropeptides*, Seybold reports that substance P applied to spinal cord neurons calls up pain-like responses. And in the December *Journal of Neurocytology*, the researchers reported that capsaicin, a drug from the Hungarian red

pepper, knocks out both pain and substance P from spinal cord neurons. The two results lead the group to regard substance P as the likely pain transmitter.

Knowing which neurons and neurotransmitters carry the pain messages gives researchers a chance to interfere in the pain pathways. "Now we can say, 'can we develop a drug that will antagonize substance P?'" Elde said, pointing out that it's best to interfere with pain as close to the beginning of the pathway as possible. Another approach might be to find a version of capsaicin that could be used to give long-term relief to patients with chronic pain. In its present form, however, capsaicin has serious side effects.

Yaksh and Elde's finding that pain causes the body to release enkephalins into the spinal cord is perhaps the most exciting.

"Pain itself stimulates the release of what inhibits pain," Elde said. "That's an exciting thing. It gives some potential for exploiting the system in a non-invasive, non-pharmacologic way."

He noted that naloxone, a drug used to counteract morphine and treat heroin overdoses, blocks pain relief in patients treated with electroacupuncture. This bolsters the view that drugs like morphine affect the nervous system because they are similar to neurotransmitters that are already there.

Every psychoactive drug or agent that acts on the brain probably fits into nerve receptors designed for similarly shaped internal control chemicals, Elde pointed out. "Nearly every drug with psychoactive properties has an equivalent in the nervous system," he said.

This view, new in the last decade, has vastly changed the whole understanding of the nervous system. The old view -- that the nervous system was like a complicated switchboard or computer -- was too simple to be useful.

Knowing that an array of chemical transmitters act and interact in complex ways gives a more complicated but realistic view of the nervous system, one that may lead to real breakthroughs in controlling pain.

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MARCH 29, 1982

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OPEN HOUSE SET AT U OF M
VETERINARY MEDICINE COLLEGE

(FOR IMMEDIATE RELEASE)

The College of Veterinary Medicine at the University of Minnesota will hold an open house April 25 from 10 a.m. to 4 p.m.

Tours will be conducted through the veterinary medical complex, including the Large and Small Animal Hospitals, Diagnostic Laboratory, Raptor Rehabilitation Center and basic science facilities. A "petting zoo" featuring baby goats, lambs, calves and piglets will be open for children.

A panel of faculty experts will present short lectures on topics ranging from pet health care to the production of animal medicine. Films depicting the role of modern veterinary science will be shown throughout the day.

The annual open house is sponsored by the University of Minnesota Student Chapter of the American Veterinary Medical Association. The college is on Commonwealth Avenue on the St. Paul campus, just west of the State Fairgrounds.

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(AO, 3, 30; B1, 3; CO, 3, 30)

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MARCH 30, 1982

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INTELLECTUAL LIFE IN THE U.S.S.R.
TO BE EXAMINED IN U OF M SEMINAR

(FOR IMMEDIATE RELEASE)

Journalist Harrison Salisbury and exiled Soviet writer Alexander Ginzburg will be among the guests at a University of Minnesota seminar on Soviet culture April 16 through 18.

"Intellectual Life in the Soviet Union: A Look at Contemporary Soviet Culture," sponsored by the University Gallery, will bring together journalists, scholars and recent Soviet emigres to explore literature, music, mass media and visual arts. The seminar, free and open to the public, will give the specialists and the public an opportunity to exchange viewpoints and assess the relationship of the state to the creative climate.

Organized by the gallery and a university-wide planning committee, the seminar will be presented in conjunction with an exhibition, "Non-official Soviet Art, Recent Works," on display at University Gallery from April 5 through May 2. Approximately 70 works in styles ranging from abstract expressionism to pop art will be displayed. A reception will be held in the gallery for the exhibition from 7 to 10 p.m. April 16.

Salisbury will open the seminar with a lecture at 8 p.m. April 16 in room 45, Nicholson Hall, on the east bank of the Minneapolis campus. The former Moscow correspondent for the New York Times will speak on "The Russian Revolutionary Spirit Lives on in Art and Culture."

On April 17 talks will be presented throughout the day on the Soviet artist and the state as well as on the old ideology and new literature. Among those speaking will be Ernst Neizvestny, a New York artist who emigrated from the Soviet Union in 1976; Ludmila Kuznetsova, another emigre and collector of nonconformist Soviet art;

(MORE)

and Sergei Dovlatov, a writer and editor in New York who left the Soviet Union in 1978.

A number of scholars will also participate, speaking on such topics as "The Art of Dissidence," "Russian New Wave," "Anarchists and Innovators" and "The Worker in Recent Soviet Literature."

Also on April 17, an evening of Soviet music will be presented at 8 p.m. at the House of Hope Presbyterian Church at 797 Summit Ave., St. Paul. Pianist Alexander Braginsky and cellist Tanya Remenikova, Soviet emigres and now faculty members of the university's School of Music, will perform. A discussion of Soviet music will follow.

A group of speakers will explore the communication of political information in the Soviet Union from 1 to 3 p.m. April 18 in the Theater/Lecture Hall of Coffman Memorial Union.

Henry Shapiro, former United Press International chief correspondent in Moscow, will open the discussion with his talk, "How Well-Informed is the Soviet Reader?" Shapiro is an honorary fellow in the School of Journalism at the University of Wisconsin-Madison.

"The Role of the Media in Soviet Life," will be discussed by Colette Shulman, chair of the advisory committee of the Project for Soviet Emigre Scholars in New York and a specialist on the Soviet Press.

Alexander Ginzburg, journalist and former administrator of the Russian Social Fund -- co-founded by exiled Soviet writer Alexander Solzhenitsyn -- will speak on "Activists and Activism." Ginzburg spent nine years in prison before he was exiled from Russia in 1979.

Among the funding sources for the seminar are: The Minnesota Humanities Commission in cooperation with the National Endowment for the Humanities; the Jerome Foundation, St. Paul; the Research and Development Committee of the American Association for the Advancement of Slavic Studies; and the College of Liberal Arts, the Graduate School and the Campus Committee on Convocations and the Arts at the University of Minnesota.

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(AO, 3, 20; B1; CO, 3, 20; DO, 3, 20; EO, 3, 20; F1&t)

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EVIDENCE FOUND THAT MAN,
CHIMP, GORILLA SHARE ANCESTOR

(FOR IMMEDIATE RELEASE)

Tracing the "footprints of evolution" by comparing the tiny bands found in the chromosomes of man and the great apes, a University of Minnesota geneticist has found what he calls "definitive evidence that man, chimpanzee and gorilla indeed have a common ancestry."

"We are proposing evolutionary steps at the chromosome level," says Dr. Jorge J. Yunis, a Medical School professor of laboratory medicine and pathology well-known for his genetic studies of cancer and birth defects.

A comparative analysis of the chromosomes from man, gorilla and chimpanzee reveals remarkable similarities and suggests a "common hominoid ancestor," Yunis reports in the March 19 issue of Science in the article, "The Origin of Man: A Chromosomal Pictorial Legacy."

Yunis and colleague Om Prakash suggest an evolutionary scheme in which three branches diverge from a common phylogenetic tree. The orangutan was the first species to branch off. The second branch marks the emergence of the gorilla. The third branch represents the chimpanzee, leaving the human to evolve with only a few different chromosomal characteristics.

"Anthropologists have debated in recent years whether man was closest to the chimpanzee or the gorilla. We are now pointing out that man and chimpanzee are not only closest, but also shared a common ancestor," Yunis said.

Chromosomes are the threadlike bodies in cell nuclei that carry the genetic blueprints for every living cell. Human body cells each have 46 chromosomes (23 from each parent) thought to contain 30,000 to 50,000 genes.

(MORE)

When stained before they split, chromosomes show light and dark horizontal bands. Each chromosome displays unique band patterns that enable specialists using a light microscope to identify positively each of the pairs.

While standard techniques of chromosome banding reveal about 300 distinct bands, Yunis has introduced a high-resolution method that makes it possible to view more than 1,000 bands, allowing him to detect minute bands that are out of order, missing or duplicated. Chromosome banding has become an invaluable tool for diagnosing genetic defects and several forms of cancer.

Yunis has now applied his high-resolution banding technique to the study of human evolution. With the ability to view chromosomes in greater detail, he has identified corresponding bands in man, chimpanzee, gorilla and orangutan.

The Minnesota geneticist reported in 1980 that man and chimpanzee shared a "remarkable degree of similarity" in their chromosomal patterns. He explained that two chromosomes fused in the course of evolution, giving man 23 pairs instead of the 24 found in the great apes. That study reinforced anthropologists' belief that man and chimpanzee are closely related among the primates.

In his current Science article, Yunis reports that every band found in the human chromosomes can be identified in each of the three great ape species and many can be found in other primates such as the rhesus monkey and baboon. The similarity includes a correspondence in the thickness and color intensity of every band observed in the four primates, Yunis reported.

The common ancestor of man, chimpanzee and gorilla had 24 pairs of chromosomes, Yunis theorizes. Of these, 18 pairs were similar to those of present man, and 15 pairs were similar to those of chimpanzee, gorilla and orangutan.

What differences exist in the chromosomes of the four species are mainly rearrangements or "inversions" of chromosomal segments. Yunis believes these inversions were possibly caused by radiation during evolution. These events may have produced a barrier against cross-fertilization, helping in the emergence of the new species.

It has not been possible before now to develop a complete ancestral model because of technical difficulties in tracing evolutionary changes in several chromosomes, Yunis said. But with high-resolution chromosome banding "it has become possible to reconstruct the possible chromosome sets of three ancestors to man and the great apes."

"Until about five years ago, it was believed that the great apes formed one branch of evolution and man was separate. But then molecular anthropologists showed that man, chimp and gorilla had a common ancestry. We didn't know what happened and how they evolved. We have now provided the most definitive evidence available that man, chimpanzee and gorilla indeed have a common origin and postulated the likely steps that took place prior to man's emergence."

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FDA APPROVES ACYCLOVIR USE
FOR PRIMARY GENITAL HERPES

(FOR IMMEDIATE RELEASE)

The new anti-viral drug acyclovir has been approved for the treatment of primary genital herpes by the federal Food and Drug Administration following clinical studies at the University of Minnesota and 27 other health sciences centers in the United States and Canada.

Patients are expected to be able to obtain prescriptions for the ointment form of the drug from their physicians within the next month. Acyclovir is manufactured by the Burroughs Wellcome Corp. of Triangle Park, N.C.

Because the ointment or "topical" form of acyclovir does not appear to be an effective treatment for shingles -- caused by another member of the herpes virus family -- University of Minnesota researchers today announced a two-year study of an oral form of the medication for shingles sufferers. The study will begin Thursday (April 1).

"Acyclovir is the most exciting anti-viral drug which we have seen in the last decade," said Henry Balfour, chief of virology at University Hospitals and one of the principal investigators in the acyclovir studies. "It has been shown to be effective, reliable and relatively safe for the control of primary genital herpes and herpes in immunocompromised patients."

Balfour cautioned, however, that the data are insufficient to prove that acyclovir is useful in treating recurrent genital herpes. He added that the evidence is also "not clear cut" on whether the drug is an effective treatment for lip herpes or cold sores, a more common form of viral infection.

"I would suggest that all patients with oral or genital herpes contact their personal physicians who will be able to prescribe the drug, probably within the month," Balfour said.

The virology chief emphasized that acyclovir is not available to the general public at University Hospitals for treatment of any of the herpes infections. "No trials of topical acyclovir are either under way now or are contemplated in the future," he said.

(MORE)

The drug has been praised by clinicians and researchers because it does not affect healthy tissue. Acyclovir is inactive until it comes into contact with enzymes that only herpes viruses make. This enzyme converts the drug into an antiviral poison which prevents the virus from reproducing while leaving normal body cells untouched.

Balfour and colleagues Bonnie Bean and Charles Mitchell conducted the largest clinical trial of acyclovir use in its intravenous form. More than 170 patients -- mostly transplant and cancer patients -- have received acyclovir during the past two years at University Hospitals.

The cancer and transplant patients who received the drug were virtually defenseless against herpes simplex and shingles infections because their immune systems had been inactivated by chemotherapy or anti-rejection treatment.

Following analysis of these studies, the Minnesota research group reported:

--Acyclovir is safe and has limited side effects.

--The drug significantly shortens the period of viral excretions in herpes simplex and shingles infections. The period of pain is also significantly shortened.

--Decreased duration of fever in immunocompromised patients with cytomegalovirus, another herpes group virus that causes serious and sometimes fatal infection after organ transplantation.

Balfour's group recently completed a study of 31 shingles patients who were treated with acyclovir intravenously. Results of this study are being analyzed, Balfour said.

The university virologists will continue their shingles study during the next two years to determine if an oral medication is effective. Sixty patients who have experienced the shingles rash for three days or less will receive capsules daily for a period of 10 days in the placebo-controlled trial.

For more information on the shingles study, contact the Virology Service at (612) 373-8898.

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(AO,23,24,28;B1,4,5;CO,23,24,28;DO,23,24,28;
EO,23,24,28;I23)

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ADULT 'TURNING POINTS'
FOCUS OF U OF M SEMINAR

(FOR IMMEDIATE RELEASE)

Turning points in the lives of adults and the opportunity for change and growth will be discussed at a one-day conference at the University of Minnesota Rochester Center April 15.

Daniel Levinson, author of "Seasons of a Man's Life," will be the keynote speaker. Levinson will discuss his recent research on transitions in the lives of women.

The fee for the conference, which will be run from 9 a.m. to 4 p.m., is \$45. Co-sponsors of the session are the department of continuing education in social work on the Minneapolis campus and the Rochester center.

For more information, contact Beryl Byman, Program Director, University of Minnesota Rochester Center, 1200 South Broadway, Rochester, MN 55901, telephone (612) 224-3106 or (507) 288-4521.

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U OF M TO DIVEST HOLDINGS
IN AMERICAN HOME PRODUCTS

(FOR IMMEDIATE RELEASE)

The University of Minnesota will sell its 4,000 shares of American Home Products over the next few months because that company has withdrawn its endorsement of the Sullivan Principles, a code of conduct covering equal labor practices for companies that do business in South Africa.

The decision to divest was announced today by Frederick Bohlen, vice president for finance. Three years ago, the university's board of regents adopted a policy of selective divestiture of holdings in companies with operations in South Africa.

The Sullivan Principles, originally written by Rev. Leon Sullivan of Philadelphia, lay out a detailed code of conduct that deals with equal opportunity for South African laborers and equal treatment in the work place. Of the 350 American companies operating in South Africa, about 140 have endorsed the principles.

American Home Products Corp. produces prescription and over-the-counter drugs, food, candy and household products, including Anacin, Dristan, Wizard air freshener and Chef Boy-ar-dee foods.

The 4,000 shares the university holds have a market value of \$290,000.

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(AO,12;B1;CO,12,E12)

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LAGGING PUBLIC RESEARCH MAY MEAN
FOOD SHORTAGES, AGRICULTURE EXPERT WARNS

By Paul Dienhart
University News Service

There's a simple rule of thumb -- now embraced as dogma by the Reagan administration -- that the public sector does basic research and the private sector does applied research. This rationale is being used to cut the already weakened public system of agriculture research in this country, according to agricultural economist Vernon Ruttan in an article in the April 2 issue of Science magazine.

"It's an ideological approach to research policy, and very imprecise," Ruttan said in an interview.

Ruttan, a professor of agriculture and applied economics at the University of Minnesota, was a member of the federal task force that published a report in January warning of deficiencies in the United States' system of agriculture research. "New technologies may not be keeping pace with domestic and world needs for food," the report stated. "World food problems are likely to worsen without major technological breakthroughs."

Public agriculture research has remained at about the same level since 1965, Ruttan said. The U.S. Department of Agriculture (USDA) gets less money for research than any other major federal agency. The task force report, published by the U.S. Office of Technology Assessment, urged expanded federal support for agriculture research.

"Agriculture research has proven to be a great investment," Ruttan said. "The social rate of return varies between 50 and 100 percent a year." Basically, that means that if you consider the savings to farmers for more efficient production and the savings to consumers for more abundant food, agriculture research more than pays for itself, he said.

So why isn't it obvious to everyone that there should be more public support of agriculture research? "For one thing, it's a long-term investment," Ruttan said. "It takes eight to 15 years for a discovery to begin to pay off."

"By failing to invest in research today we may be affecting productivity in the 1990s," Ruttan said. Until about 10 years ago productivity had been increasing by more than 2 percent a year, a rate Ruttan considers desirable. The rate is currently

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1.8 percent. There is a possibility the rate could drop to 1.5 percent, the point where problems in satisfying domestic and world demand for food would begin, Ruttan said.

Hard-hit farmers might welcome a drop in productivity and higher demand for their products. But Ruttan said if productivity fails to grow the profit would be eaten by higher production costs. Faced with higher food costs, consumers would exert political pressure to lower prices. "Over the long run it makes sense to keep productivity growth in line with demand," Ruttan said.

Since almost all the country's farm land was in use by the turn of the century, the only ways to increase productivity have been by scientific advances: bigger tractors, higher-yielding seed, more effective insecticides.

But why expand public support for agriculture research if it's something the private sector is doing already? It's true that by 1979 private firms were doing about 65 percent of this research, Ruttan said. He estimates that the private sector spends \$1.6 billion a year on agriculture research compared to \$1.2 billion allocated for public research projects.

In an ideal research system, public and private sectors should complement each other's research efforts. Unfortunately, the trend seems to be away from this approach, Ruttan said. Pressure to cut budgets makes it attractive to deem almost all applied research inappropriate for the public sector.

"There is a large area of applied research that just won't get done if it is left to the private sector," Ruttan said.

In his article for Science -- "The Changing Role of the Public and Private Sectors in Agricultural Research" -- Ruttan argues that the policy for each area of agriculture research needs to be analyzed. "We should find more incentives for private research and concentrate public research in areas where there aren't incentives," he said.

Research on mechanization -- developing better harvesters and other farm machines -- is coming along quite nicely in the private sector, Ruttan's article points out. "Close to two-thirds of private sector research and development is concentrated in engineering," he wrote. "The private sector has been an effective source of new mechanical technology."

It is proper that the public sector plays a relatively small role in creating new farm machines, Ruttan wrote. He criticizes the effort of the University of California to develop a mechanized tomato harvester. "Private companies probably would have developed an effective tomato harvester without the university's participation," he wrote.

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A big reason for the private sector's effectiveness in developing machines is the patent system. The investment in research can be protected.

The opposite is true for developing new crop varieties. In the past a farmer could become a seed salesman to his neighbors by growing a crop of the new seed variety. Hybrid seeds and legislation to protect rights to crop varieties are beginning to make the investment safer, Ruttan wrote.

"The two inbred lines that create a hybrid are as good as a patent," Ruttan said. Private firms produce over 80 percent of the hybrid corn and sorghum seed. In contrast, over 80 percent of the non-hybrid seed -- wheat, oats, barley and dry beans -- is developed by public research.

In 1970 a federal plant variety protection act was passed in the hope of giving private companies more incentive for plant breeding research. It's too early to tell if the law will have the desired effect, Ruttan wrote. The picture could also change if companies develop hybrids of other crops. In spite of substantial effort, nobody has succeeded in developing hybrid wheat.

Factors like these mean that someday private companies may be able to take over the bulk of plant variety development. But that's far from true yet. Meanwhile, funds for public research in plant breeding haven't increased since 1965. We should monitor the progress of private breeding programs while at least maintaining present levels of support to public efforts, Ruttan said in the article.

While plant breeding became a more desirable private enterprise in the mid-1970s, insecticide research lost favor. The profit incentive was weakened by tougher regulations. It cost more to make the rigorous tests required for registering a new chemical insecticide. There was a shift from the profitable broad-spectrum insecticides to chemicals that worked only on a single crop or single insect.

The result: "There has been a decline in the productivity of scientific effort in private sector pesticide research and development," Ruttan wrote.

Private companies had little incentive to work on alternatives to insecticides. It was largely left to the public sector to develop insect-resistant crops, predator insects to control pests and the "integrated pest management" approach of using trained "scouts" to inspect the fields so insecticides are used only when necessary.

At the same time the USDA and the state agriculture experiment stations were tied up testing insecticides for registration. The public sector wasn't filling the gap by developing new ways to control insects. The law was changed in 1978 to simplify the insecticide registration process. It is too early to tell if the law will have the intended effect, Ruttan wrote.

(MORE)

Both public and private sectors need encouragement for insecticide research, Ruttan said in the article. Red tape should be further reduced to encourage private research. The public sector is the obvious place for research on alternatives to insecticides. "The public program is financed with scraps of funds," Ruttan said. "Public sector financing has to be more stable than the present system of grants and user-fees."

Analyzing research policy, as Ruttan advocates, is a relatively new ~~undertaking~~. "We're fortunate that the decentralized system of state experiment stations and the USDA is a good one," he said. "More by accident than by plan we've evolved an efficient research structure."

Material from Ruttan's article for Science also appears in his book "Agriculture Research Policy," which will be published this spring by the University of Minnesota Press.

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(AO,4,35;B1;CO,4,35;DO,4,35;
EO,1,4,35;I4)