

Minutes*

Senate Research Committee Monday, September 8, 2003 1:15 - 3:00 238A Morrill Hall

Present: Gary Balas (chair), Victor Bloomfield, Kathleen Conklin, James Cotter, Christopher Cramer, Dan Dahlberg, Sharon Danes, Kathy Ensrud, Steven Gantt, David Hamilton, Paul Johnson, Katherine Klink, Andrew Koch, James Luby, James Orf, Mark Paller, Maria Sera, Virginia Seybold, Thomas Schumacher, Charles Spetland, Barbara VanDrasek, Jean Witson

Absent: Robin Dittman, Phillip Larsen, George Trachte, Michael Volna

Guests: Mark Bohnhorst (Office of the General Counsel)

Other: John Ramsay (American Council on Education Fellow)

[In these minutes: (1) welcome, introductions, agenda items for the year; (2) the research partnership with Mayo; (3) update on research secrecy; (4) library acquisitions; (5) NSF on campus]

1. Welcome and Introductions

Professor Balas convened the meeting at 1:15 and welcomed everyone to the first meeting of the Committee for the year. He called for a round of introductions.

He then reviewed some of the topics for the year: the Mayo-University relationship, disposition of the funds for energy research from the legislature, the biotech incubator in St. Paul, University contracts and SPA/SFAR, a stem cell research policy, changes in the research infrastructure at the University, the results of the survey of IRB users, research secrecy and the subcommittee on exceptions, report on the compliance office, update on overhead rate negotiations with the federal government, and the consulting policy. Some of the items will not be ready until later in the year, Vice President Hamilton observed, and there will be other policies coming as well (such as dealing with new drugs).

All Senate and Assembly committees have also been asked by the Consultative Committee to review their charges by the end of October, Professor Balas reported, so at some point that item will also appear on the agenda.

2. The Joint Venture with Mayo (Minnesota Partnership for Biotechnology and Medical Genomics)

Professor Balas turned to Assistant Vice President Mark Paller to lead a discussion of the partnership with Mayo. Dr. Paller distributed copies of a handout and walked the Committee through it

* These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate or Twin Cities Campus Assembly; none of the comments, conclusions, or actions reported in these minutes represents the views of, nor are they binding on, the Senate or Assembly, the Administration, or the Board of Regents.

(and much of the following language comes directly from the handout). He noted that he was presenting this for information, and that the same information would be presented to the Board of Regents later in the week, but he would be glad to hear about any concerns or recommendations that the Committee might have.

The partnership is a health sciences collaborative research program with the Mayo Clinic, using state funds to leverage additional federal and private research investments. It is a joint effort in funding research on new discoveries for the diagnosis and treatment of disease that will also position Minnesota as a world leader in biotechnology and medical genomics. The hope is to have part of the local economy (companies) based on these fields; the research institutions would be a part of that economy.

Dr. Paller explained that recent scientific advances (genomics, proteomics, molecular and cellular biology) benefit from a team ("big science") approach. It is difficult for any individual or single lab effectively to do much of this work. A few geographic areas will emerge as world centers in this new field and Minnesota has that potential. It has a strong history in medical research and incubation of medical industries. At present the state is not behind; this effort helps to ensure that it will continue to move forward.

Key investments have already been made by the University and by Mayo. In the last 10 years the University has invested over \$250 million in capital improvements and the recruitment and retention of top faculty in genomics, proteomics, cell biology, and so on. During the same period, the Mayo Clinic invested about \$150 million to develop a digital database of patient records and ten million tissue/serum samples. Both institutions rank in the top 30 nationally for NI funding; last year the two collectively managed about \$700 million in major research grants. Taken together, the two institutions would have been #5 in the U.S. in research funding.

The competition is stiff; nearly all states have created programs or partnerships to encourage the development of this research (including Illinois, Michigan, and Wisconsin). State support provides the necessary leverage. A partnership between the two institutions, combined with a financial commitment from the state, is required for Minnesota to compete and emerge as a world leader.

The goals of the project are several, Dr. Paller related. (1) To achieve breakthroughs in new methods to accurately diagnose and develop innovative therapies for major disease such as cancer, heart disease, and neurological disease. (2) Encourage the creation of new businesses and jobs in Minnesota that will result from these new medical discoveries. (3) Maintain Minnesota as a renowned destination for medical care and the medical industry as a major contributor to the state's job base.

Phase One, a result of the 2003 legislative session: The Partnership requested and the Governor supported an appropriation of \$2 million in one-time state funding to develop the Partnership; state funds will be matched by \$1 million each from the University and Mayo Clinic over two years, so there will be a total of \$4 million over the two years. The "deliverables" are expected to be joint research (demonstration) projects and a business plan for phase two.

The Phase One research projects will be funded by \$3 million in research grants; they anticipate funding 2-6 collaborative research awards. Awards of any size will be considered as long as all criteria are met. There was an announcement of the availability of the funds; the proposals are due next week. The University and Mayo have set up their own study section to evaluate the proposals and make awards.

All proposals must be for a joint project that the University or Mayo could not perform on their own, must advance the understanding of a disease or disease process, and must have a high expectation for success.

The Phase One research projects must outline goals that will be completed in two years, that are expected to result in a successful NIH application, addresses an issue in disease prevention, diagnosis, or therapeutics, and should include novel applications of recent advances in biotechnology, genomics, proteomics, and bioinformatics to significant issues in human health. The state funds and institutional contributions are seed money, Dr. Paller said; the projects are expected to become self-sustaining.

The numbers are expected to become much larger in Phase Two. The Partnership expects about \$70 million in state funds (spread over 2-3 biennia), plus federal funds, for more extensive research programs in biotechnology and medical genomics. The outcomes they hope for are additional research capabilities (for the two institutions to use each other's resources without acquisition costs, such as sharing equipment, new faculty recruits, new research equipment), new technology (invention disclosures and patents), start-ups (with a preference for a Minnesota location), new jobs, and new research funds (e.g., from NIH). Based on the past record, Dr. Paller said, they can expect to see from \$70 million in research funding a certain number of new companies, jobs, patents, and so on--but the two institutions themselves will just be doing the research.

The Phase Two business plan includes financial management of the Partnership (a separate account at the University and provisions for handling of matching funds) and inter-institutional agreements on such things as using existing policies and procedures, designation of a PI (whose institutional rules will apply), research, intellectual property, visiting scientists, joint appointments, and conflict resolution. Research rules will be based on where the PI is located; the other institution will be a subcontractor, of sorts, Dr. Paller said. The funds will not be "split" between the University and Mayo but will follow the research--but it is expected that there will be a rough balance between the two.

The business plan for the second phase of the Partnership will include: Commercialization of new discoveries using existing structures, \$5-7 million for seed and developmental work, mechanisms to keep the technology in Minnesota, and a joint technology advisory group; additional partners may include federal investment or corporate partners; and demonstration of the incremental value of the partnership. About 10% of the funds, the \$5-7 million, will go to development of technologies, Dr. Paller said, but the way the University always does it, with University policies controlling and an arm's length relationship. The University and Mayo have already worked together on patents so this should not be a completely novel enterprise.

The potential policy issues are these:

-- Is the mission of the Partnership consistent with and/or does it further the mission of the Academic Health Center and the University? To this Dr. Paller said that it provides investigator-initiated research with not very many restrictions.

-- With respect to the \$70 million collaborative research proposal, to what extent will this effort compete for University resources or affect its priorities? Since these are investigator initiated, Dr. Paller told the Committee, they are not new priorities, and it does not involve so much money that it would skew

research. The AHC had about \$300 million in research funding last year; this would bring in perhaps \$7 million per year ($1/2$ of \$70 million = \$35 million, spread over five years = about \$7 million per year).

-- With respect to the \$70 million collaborative research proposal, to what extent will this effort compete for legislative appropriations? Dr. Paller observed that the University will have to tell the legislature that this is not part of its core request; the latter must come first.

Professor Dahlberg said it sounds like the University and Mayo have not talked with each other before this endeavor. Dr. Paller said the interactions have been spotty. Individual investigators have worked together; organizational collaboration has been more difficult, both because of the distance and because faculty do not necessarily want to work with someone they do not know (i.e., at Mayo) rather than someone they do know at another institution. If, however, now they can work with someone at Mayo, they have the opportunity to receive additional funding. The initial response to the Partnership, he added, has been enthusiastic. People will not have to compete nationally for this funding, Professor Dahlberg said; is it expected they would receive NIH funding in the future? It is expected that they would do research that would qualify for NIH funding in the future, Dr. Paller said.

Vice President Hamilton said that Dr. Paller has been in charge of the legislative pool of funds for research that the University has had for a number of years; the return on investment is terrific, over 200%. In the case of some grants, Dr. Paller reported, the ROI can be as much as 300% to 600%. Nothing has prevented intercollegiate grants before now but the Partnership adds funds that can be awarded; NIH funding will validate the efforts.

Dr. Hamilton pointed out that grants are not restricted to the Academic Health Center; there are collaborative efforts with the Institute of Technology, for example.

Professor Dahlberg said that it would be an "incredible shot in the arm" if the University and Mayo were to receive an additional \$70 million in research funding that would help bring them together. He recalled the observation of former Vice President Infante, however, that all money is green: There is a concern that the legislature will count these funds against the total allocation to the University. Dr. Paller noted first that it would be \$70 million over five years, but agreed that it is a valid concern. He said he purposely brought this question up and has discussed it with the President. The University needs to hold the Governor to his promise that this funding will not be counted as part of the University's request. Dr. Paller pointed out that the first \$2 million in funding is coming from the Department of Economic Development, an agency from which the University ordinarily receives virtually no funding, so the money is not counted as part of the higher education appropriation.

What is the response of the business community, Professor Gantt asked? They are thrilled, Dr. Paller said. Mayo has a great "brand" in the delivery of medical care; the University has more wide-ranging research. Some do not understand why the two organizations, only 90 miles apart, have not worked together more in the past. He said he did not want to get into the history; they now agree that they should compete together against other institutions.

Given the new technologies and the possible business development downstream, what role will the AHC play in helping principal investigators with intellectual property issues, Professor Seybold asked? Dr. Paller said that Patent and Technology Marketing has improved its services a great deal in recent years and it will continue to do so. Dr. Hamilton said that his office and Dr. Paller's would work

together to be sure that PIs have the help they need; Dr. Paller concurred. Dr. Hamilton said that as the business plan is fleshed out, he and Dr. Paller will return to the Committee to talk about intellectual property.

Mr. Koch asked if students would see any results from the Partnership. Dr. Paller said there will be more opportunities for a research experience as well as more opportunities for graduate student projects. If the University's research increases, there is not a specific educational or class component but an increase would allow the University to be more competitive in recruiting faculty, which in turn has a domino effect on teaching, graduate assistants, and so on.

Will the Partnership research projects be charged overhead, Professor Balas inquired? Dr. Paller said the federal rate will be used and the projects will be charged the overhead rate from the University contribution. The state would not allocate the funds unless there was also support from Mayo and the University; the University funds will be used to offset the costs of research. That is why there will be \$3 million in direct costs in Phase One, rather than \$4 million. There may be a difference in cost structure at the University and at Mayo, Professor Balas said; will it be easier to do experiments or testing at one or the other, with the overhead funds following accordingly? Dr. Paller said they were not concerned about any particular investigations. There are things the University can do that Mayo cannot, and vice-versa. These are projects that cannot be done by one of the two organizations.

Professor Balas recalled discussions with Senior Vice President Cerra about the shortage of space in the AHC; how will that problem be addressed? Dr. Paller noted that the University has received funding for the Translational Research Facility, which will be ready in two years; that will provide some relief. He said he did not know if the Partnership project would result in new hires. The city of St. Paul is also interested in a partnership and there have been discussions with it about construction of lab space the University could use. On the other hand, the University has never taken the position that it would not apply for research grants because of space constraints (unless the grant were enormous); this amount of research funding will not change the way the University does business--but over the long-term, if there is a lot more money involved, the University can build as it needs to.

Professor Orf asked if the funds would be carried forward if there seem not to be appropriate projects on which to use it. The Partnership must deal with the normal cycles of basic science research, he said. Dr. Paller said he thought they would do so if they reached that point, but if the Partnership does not use the state funds in the first year they will lose the money. For the projected \$70 million, however, how the funds would be carried has not been determined and they would like to be more flexible.

Professor Balas thanked Dr. Paller and asked that he keep the Committee informed about progress.

3. Update on Research Secrecy

Professor Balas now welcomed Mr. Bohnhorst to the meeting to provide the Committee with a review and update on research secrecy issues. He observed that Mr. Bohnhorst has been of great assistance to the Committee.

Mr. Bohnhorst said there are two major issues in research secrecy: the right to publish and the right of University community members to participate in research irrespective of their country of origin.

The University Board of Regents has two policies on research. The first, which dates from 1940, provides that the University reserves the right to publish the results of research when it signs contracts with companies. The policy, however, does not cover foundations or the federal government, which is a large loophole. The second policy, from 1969, covers that loophole: It forbids any contract from any source that would limit disclosure.

The second policy allows for two exceptions. First, it is permissible to analyze "characteristics or uses of proprietary devices or substances"--testing--so long as aggregate research results can be published. Most of these are sales contracts and do not often go through Sponsored Projects Administration. The second exception is a request for genuine research with restrictions on the publication of results. Before such a contract can be accepted, this Committee must review it and make a recommendation to the full University Senate, which in turn makes a recommendation to the President on whether to grant an exception to the policy. This process was put in place so that the President can be informed about the University community's views before a decision is made.

There was little controversy over research secrecy until about 2001, at which time the University started seeing a number of contractors (Department of Defense and its subcontractors) try to restrict publication. All universities began to see these restrictions. The University has strongly resisted the restrictions and has had a number of dialogues with the agencies. Mr. Bohnhorst said he thought the situation had turned around by the end of 2002. There were a few exceptions that were approved by the University Senate (the University actually lost a couple of the contracts because it did not act quickly enough). But the University generally has been able to negotiate acceptable terms and the higher education community has gotten the federal government to change its position.

During 2002-03 there were positive developments. A high-level committee looked at federal actions and issued a report that said that efforts to restrict publication were misguided. The Army reversed its policy and returned to its previous (largely non-controversial) policy. In April of 2003 the Homeland Security Secretary, Tom Ridge, spoke to the AAU and said that his department would not restrict publication of research results. By June it appeared that the higher education community had prevailed on the issue. Mr. Bohnhorst said he did not expect to see many contracts restricting the right of University faculty to publish.

An emerging issue is restrictions on who may participate in research based on their country of origin. Contracts will say that (1) only U.S. citizens may work on the research, or (2) the research may involve non-U.S. citizens but any non-public information can only be shared with U.S. citizens. Export-controlled proprietary information, or information related to export-controlled products, cannot be provided to non-U.S. citizens.

The University has no written policy on this issue, Mr. Bohnhorst told the Committee. The unwritten practice is that the University will not accept such restrictions except in limited circumstances, such as terrorism research (e.g., access to select agents--either the University has to get rid of all select agents or it has to accept the restriction that no student may have access to select agents if he or she is from a country on the State Department list of countries that sponsor terrorism). Alternatively, the University has had a contract for such research but not students from the problem countries were involved. In contracts with companies, the University requires that the company inform it if the research involves export-controlled products or substances so that the University can decide whether or not to accept the contract. On some contracts, the University has been creative, Mr. Bohnhorst reported; it may

be that only the PI has access to restricted information; if that can be arranged, the University can accept a contract.

How is the University's position on not accepting restrictions based on country of origin with accepting federal education and training grants that are restricted to U.S. citizens, Dr. Paller asked? That is a limitation in the use of funds, Mr. Bohnhorst explained; the government provides that money to benefit U.S. citizens. In the same way, the funds provided by the state for the joint University-Mayo research requires that the research be done in Minnesota. Neither restrictions limit publication of results. The education and training grant restrictions have been on the books for years, Dr. Hamilton noted.

In response to a question from Professor Dahlberg about the flexibility the University has in applying the rules, Mr. Bohnhorst said the University's rules are firm and there are almost no exceptions. They negotiate contracts to bring them into conformity with University rules. Professor Balas noted that this Committee is charged to appoint a subcommittee that is expected to know the rules, look at the big picture and advise the Vice President and the University's attorneys, and consider requests for exceptions.

What is the number of grants the University has lost because of the policy, Mr. Koch asked? In the year when this was a hot issue, the University lost three contracts, Mr. Bohnhorst said--out of thousands of contracts. Dr. Hamilton said the University was relatively lucky; some institutions had to turn back major grants while the ones the University lost were quite small. It helps that University policies are clearly enunciated, Professor Balas commented.

Professor Orf pointed out that at present the restrictions based on nationality are not a large problem because the State Department list is small. The federal government could expand that list, however, and make this much more of a problem. Any faculty member who is not a U.S. or Canadian citizen could face problems. Has any thought been given to how that situation might be dealt with, he asked? The University could decide not to do the work, Mr. Bohnhorst said. The middle ground is that if the faculty feel that they should do the work, as citizens, they could do it as consultants. Or the University could set up an entity to do work that cannot be done in the University setting. A recent panel at MIT, which has done a lot of classified work, recommended keeping the university open and not accepting restrictions on research and that it should have separate labs to do classified work as part of its public service mission.

A separate entity also requires a great deal of work and administrative overhead, Vice President Hamilton cautioned. At MIT, the president and senior officers all have security clearances that must be maintained. The University has nothing like that in place; the possibility has been brought up in the past and no one has shown much interest in pursuing it. At the University of Michigan, the Regents can decide that some research is in the interest of the nation and allow it to be done even if there are restrictions.

Are companies also concerned about access, Professor Johnson asked? What Mr. Bohnhorst was talking about restrictions from the government. Companies are concerned, Mr. Bohnhorst said; the main problem is when companies give the University export-controlled information. Professor Johnson said he was more interested in knowing if companies want to restrict publication. He said he has been impressed with the ability of University attorneys to negotiate contracts that permit publication. That process goes on every day, Mr. Bohnhorst said, and the University will agree to not publish proprietary information but reserves the right to publish what it discovers. Will this be a problem in the relationship with Mayo,

Professor Balas asked? Confidentiality came up in discussions, Dr. Paller said; they are working on a blanket confidentiality agreement that would allow investigators to not disclose information they bring to the table--but it would not allow non-disclosure of research conducted jointly. While Mayo is a more closed organization, Vice President Hamilton commented, Dr. Paller and Mr. Bohnhorst are working on a business plan to satisfy the needs of both organizations. Dr. Paller said he did not anticipate any problems.

Professor Balas thanked Mr. Bohnhorst for joining the meeting.

4. Library Acquisitions

Professor Balas turned to Dr. Hamilton for comment on library acquisitions.

Dr. Hamilton reported that he has received a number of letters from faculty, across the institution, who asked that the Office of the Vice President for Research do something about the run-up in the cost of library items. Some of the letters are very poignant. The cost of some of the journals is unbelievable (in some cases, over \$20,000 per year) and the inflation rates in prices have been between 10 and 20% per year--or more. The University has been in a bind because the libraries' budget has not kept pace and their costs have increased dramatically.

Dr. Hamilton said he decided, after talking with University Librarian Lougee, that he would dip into the royalty stream for which his office is responsible and allocate \$2 million (500,000 per year for four years) to the libraries. The commitment is left open at the end so it could be renewed. The allocation was announced at the Finance and Planning Committee meeting in August, the minutes for which meeting said the allocation was \$500,000 out of \$38 million, which seemed to trivialize the contribution. Ms. Lougee does not see it as a trivial contribution, he added.

Of the intellectual property royalties, one-third go to the inventor, one-third go to the lab/unit, and one-third to the Vice President for Research. Of the one-third coming to his office, Dr. Hamilton reported, he has been putting millions into the 21st Century fund for graduate fellowships in order to build it, by 2007-08, to \$45 million; the funds can be matched by units. In about five years there will be a significant amount of matching money; in the current year there will be about \$600,000.

It was important for the University that these funds be allocated to the libraries, Dr. Hamilton said, but they do not solve the problem. They represent about half of what was needed simply to maintain current subscriptions. He said he needed to make a decision fast, before the libraries had to impose journal cancellations, so he could not consult with the Committee.

Mr. Spetland said the libraries want to be on record as expressing their appreciation for the support. \$500,000 is a lot of money, he said, and he confirmed Dr. Hamilton's report that the libraries needed about \$900,000 simply to maintain the status quo. They want to do more than just maintain the status quo, however, because there are new journals and information sources that they want to add for emerging fields of research. The libraries still needed to cut about \$450,000, which meant a reduction of about 1300 journals across all disciplines. (Dr. Hamilton pointed out that the funding from his office was for journals across the University, not restricted to any particular fields of scholarship, and the decisions were made by the libraries.)

How many subscriptions do the libraries have, Professor Orf asked? About 28,000, Mr. Spetland said, not including the Law Library. The libraries are receiving roughly 8000 fewer titles than in 1995, largely due to cancellations.

The \$500,000 in new royalty money was divided between broad subject area as follows:

36%	Science and Engineering
32%	Biomedical
19%	St. Paul Campus Libraries
13%	Humanities and Social Sciences

Across disciplines, about half was used to sustain existing journals and about half was used for new resources, mostly electronic, Mr. Spetland reported.

How broadly do the libraries consult with faculty on these choices, Professor Seybold asked? How do they know which journals are being used? Mr. Spetland said they start consulting with faculty on the core list of journals in the spring of each year. How do the faculty know about the consulting, Professor Seybold asked? Faculty should be contacted by their library liaison and the notices are on the libraries' website and other places, he said. Do they advertise the list of journals that are being considered for cuts, Professor Seybold inquired? They identify a potential list of targets, compile statistics about them, and provide the analysis to the faculty. Allocations are made by July 1 but the libraries often do not know their final budget until August, or later. The cancellation lists are made final by the start of the school year and are posted on the web in the fall.

Are the potential cuts listed on the web, Professor Klink asked? That varies by area, Mr. Spetland replied. Who decides if the list of potential cuts are to be posted, Professor Seybold asked? The subgroup that is evaluating the list, Mr. Spetland said.

One of the constraints on the libraries is that they buy big packages from major publishers; the publishers will not allow cuts within the packages, Dean Bloomfield commented. One could see this as a stratagem to squeeze other publishers out. Mr. Spetland said the libraries are testing Elsevier this year by signing an electronic only contract taking only selected journals rather than have comprehensive access to all Elsevier journals. This is somewhat risky because it is a model that has not been used before.

Professor Klink said that people who work in interdisciplinary areas often do not know about cuts proposed in other areas. Is there a way to make more available the list of potential cuts across the University so that she, for example, does not need to make the acquaintance of all the individual librarians? Dr. Hamilton agreed that the process could be improved. Professor Klink suggested putting the lists of possible journal cuts on the web so that those who do interdisciplinary work can see what might be eliminated.

Professor Dahlberg said he applauded Vice President Hamilton's action. There is an historical trend that is repeating itself, he observed; could Mr. Spetland predict when the libraries will be down to two journals? Where will this end up? Mr. Spetland said that the non-commercial, association, and professional society publishers are by and large more friendly to the libraries while the commercial publishers by and large tend to use the same pricing models that are unsustainable from the library's perspective. Another problem is that this University does not provide, relatively speaking, as much

support to its libraries as do many of its peers. The libraries need about \$1 million annually to keep pace with inflation--and the University has to grapple with that problem. This is not just inflation, it is price-gouging, Professor Dahlberg commented. Some is, Mr. Spetland agreed.

Professor Dahlberg said that he has been involved in a lot of discussions about the problems of the libraries. He will no longer publish in certain journals that he used to, he said. It is up to faculty to decide to move to non-commercial publishers, Mr. Spetland agreed. Dr. Hamilton said that Ms. Lougee will sponsor discussions about what faculty can do. There was a forum here two years ago, Dr. Bloomfield recalled, that tried to get a handle on the issues but nothing came of it. This is a systemic issue that requires faculty to decide they will not publish in journals that charge extortionist rates--and they have to decide they will not be on editorial boards and will not review articles for such journals. He noted that commercial publishers do not levy page charges while non-profits do; it would help if federal agencies would consider a small (in the context of their total grant portfolio) subvention to non-profit publishers such as scientific societies so that they didn't have to levy page charges. This problem involves university budgets, faculty, professional societies, and government and is very complicated; the groups involved must move together. This faculty committee is a good place to start.

Ms. Witson said these actions should be considered across the CIC. Mr. Spetland said the libraries are quite active with their CIC counterparts.

Professor Balas said that Dr. Hamilton had the wholehearted support of the Committee for his decision to support the libraries; Committee members gave Dr. Hamilton a round of applause.

5. Conference

Mr. Schumacher announced that there will be a conference later in the semester that Ms. Schumi wanted the Committee notified about. Dr. Hamilton amplified that NSF is coming to Minnesota on November 10-11 to hold a two-day forum/workshop on grants. On November 9 there will be a workshop on "fastlane." November 12 will have an open forum for the entire upper Midwest. The August 12 Federal Register contained a list of 12 issues NSF wants to discuss at the forum; they also chose four of interest to them vis-à-vis the University of Minnesota. Dr. Hamilton said he hoped there would be an audience of faculty there. Faculty who receive the burdens of federal and local policies that inhibit research should appear to speak up. He also suggested that the Committee solicit comments about inconsistencies among federal agencies that they find annoying.

Mr. Schumacher repeated his request for help with a focus group on improving compliance services. He said he needed about 90 minutes on a one-time basis.

Professor Balas adjourned the meeting at 2:55.

-- Gary Engstrand