

Minutes*

**Senate Research Committee
Monday, October 9, 2006
1:15 - 3:00
238A Morrill Hall**

- Present: Steven Ruggles (chair), James Cotter, Dan Dahlberg, Donald Dengel, Stephen Ekker, Steven Gantt, Paul Johnson, James Luby, Ellen McKinney, Timothy Mulcahy, F. Abel Ponce de Leon, Selam Rodriguez, Virginia Seybold, Charles Spetland, George Trachte, Sanford Weisberg
- Absent: Linda Bearinger, Richard Bianco, Arlene Carney, Sharon Danes, Robin Dittman, Genevieve Escure, Mark Paller, Thomas Schumacher, Barbara VanDrasek, Michael Volna, Jean Witson
- Guests: Associate Vice President Victor Bloomfield;
- Other: Edward Wink, Winifred Schumi, Melinda Sewell (Office of the Vice President for Research)

[In these minutes: (1) Office of Public Engagement; (2) streamlining changes in administrative research processes; (3) technology transfer and intellectual property matters]

1. Office of Public Engagement

Professor Ruggles convened the meeting at 1:20 and welcomed Associate Vice President Bloomfield to discuss the Office of Public Engagement, which he heads. [Note: Dr. Bloomfield's description of the activities of his office can be found in the minutes of the Senate Committee on Educational Policy, 10/4/06, and will not be repeated here. Only the new points made in the conversation will be reported here.]

Dr. Bloomfield said he has been asked why busy faculty should care about public engagement. There are several reasons.

- NSF requires a public impact statement, which engaged research requires.
- A number of large multi-investigator grants require a public engagement activity.
- With the revision of the Carnegie Classification of universities and colleges, one criterion used in categorizing is public engagement. They ask for a lot of detailed information and budget data, which is often difficult to get because the University does not categorize in the way that is needed.
- A public engagement database (one of the goals of his office) would be very useful for researchers who are doing community-based research.

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

- Community partners want to be partners, not just research subjects; they want to help decide on what the problems are, how the research will be planned, and how money will be spent.
- There are issues with the new budget model, especially when deans must pay a charge to central administration for the costs of research that may carry no indirect cost funding.
- Social issues do not usually fall along disciplinary lines, so engaged research may often require interdisciplinary teams.
- He and Dean Dubrow are discussing requiring graduate students to learn about ethical issues in engaged research.

Professor Ekker said that he has two children in grade schools and wrestles with their curriculum because there is no biology in grade schools. Given the pipeline demographics, with students in the sciences drying up, the University as an engaged institution should look into the issue. This seems like something that could fall under the mandate of the Office of Public Engagement. How are issues brought to his office and how are priorities set, he asked? And how does something become a University priority? Dr. Bloomfield said his office mostly networks. Associate Vice President Maruyama's office has contacts in the schools and is more directly concerned with this kind of issue. The new dean of the College of Education and Human Development is concerned about it as well and wants stronger K-6 schools. There is also a lot of interest in this subject on the part of the business community.

Professor Dahlberg asked about the budget of the Office of Public Engagement and where it comes from. Dr. Bloomfield said it is funded out of central dollars, part of the office of Senior Vice President Robert Jones, and thus part of the administrative costs paid by colleges. Much of the money is passed through, however, such as \$200,000 to departments for faculty, staff, and student work, in addition to his salary and that of the staff member and intern. He agreed with Professor Dahlberg that it is money from the tuition/indirect cost/other funds pool, but said he hoped that they are making connections and supporting activities that will repay the costs.

Professor Dahlberg then asked how indirect cost funds are handled with off-campus partners in public engagement activities. They would be subcontractors, Dr. Bloomfield said, and presumably receive some part of the indirect cost funds. There are issues in these kinds of arrangements, Dr. Mulcahy added.

Professor Ruggles asked who serves on the 12 Council on Public Engagement (COPE) committees. There are faculty and staff and some students, Dr. Bloomfield reported. There are about 80 members on COPE; he attempted to look at all the organizations at the University that are involved with public engagement and invited each of them to designate a representative to serve on COPE. It is a communications mechanism as well as a body that tries to get something done.

Professor Cotter asked if the goal of the office is to have the University in the public eye or to make a sea change in the University community so it becomes more involved in public engagement. Dr. Bloomfield said his role is more the second, to try to change the University's culture to align it better with a modern land-grant mission. University Relations does more of the kind of thing that Professor Cotter mentioned first.

In response to a query from Dr. Ponce de Leon, Dr. Bloomfield confirmed that Extension activities are part of the engaged university.

Professor Johnson asked if public engagement is something deans think about how their college might do. It is part of each compact, Dr. Bloomfield said, and he reads that part of the compact. The deans understand public engagement; they are out in public a lot and the compact statements are quite good.

Professor Ruggles thanked Dr. Bloomfield for joining the Committee.

2. Streamlining Changes

Professor Ruggles asked Vice President Mulcahy to report on streamlining changes that have been adopted in various activities related to research.

Dr. Mulcahy began by recalling that last fall he solicited faculty and staff suggestions for improvements that could be made in administrative processes related to research and he also charged each administrative unit that reports to him to identify how it could change its performance in order to reduce administrative burdens. He received over 200 suggestions from faculty and staff that fell into a number of categories; his office and his colleagues have since been working to make changes. His philosophy about how to make these changes is not just to act on the information but to do things the way they believe they should. And to be sure the changes become part of the culture of support services, they must come from the staff. He has said that changes will be made, but he wants them to be part of a routine to make improvements rather than wait on comments or suggestions. He gave the staff time to review the comments they received and to decide how to make the improvements, and said he would like the staff to develop a culture of continuous improvement. There will be a series of changes coming, some of which will take longer than others, some of which are small and some of which are profound.

-- Material transfer agreements: the form has been simplified and the PI is no longer responsible for contacting Sponsored Projects Administration (SPA) about a lot of details.

-- They received about 40 comments on the PRF, which serves an important purpose in checking on compliance obligations, but it is considered by many to be incredibly complicated and seeks more information than is needed and requires multiple signatures—and since it is a paper form, the signatures need to be sequential. The new form will be web-based with parallel tracking and a reduced number of required signatures. He would like to require only one signature, but the colleges have demurred because they use the information in their data; Dr. Mulcahy said they will provide the information to the colleges. SPA will now accept all the forms electronically.

-- SPA will accept the administrative and budget portions of grants in advance of the grant and will work with PIs to develop them.

-- In the past, if there were substantial alterations in a grant budget, a new PRF was needed; now, if the changes are less than 25% of the budget and no change in key personnel, a new PRF will not be required.

-- SPA will not require a detailed budget for modular grants.

-- They are working to get to the point when they can accept all proposals electronically, but that is down the road a bit.

-- He has commissioned the IRB, IACUC, and the conflict of interest committees to establish an integrated electronic database. Ultimately this system would make it possible to complete certain information required for many compliance documents a single time and the system will automatically fill similar information on subsequent forms. An RFP for the system is going out in the near future and they will get the system in place as soon as possible.

-- There is a need to upgrade the IACUC application process because it is now a lengthy and detailed process. Dr. Mulcahy said he would like to see a standardized set of options for certain common experimental procedures available from pull-down menus where appropriate.

-- The IACUC will develop three different applications for animal use proposals (rather than just one, as in the past), depending on whether they are being used in research, observed in the wild, or being used in teaching. This should expedite approvals.

-- They will do a better job in helping people understand what is required in effort reporting. The reporting will be required on a semester basis, not quarterly; he wanted to require it on an annual basis, but other universities are not doing it that way. The system will also monitor effort reporting so those who approach 90% will automatically be notified (because preparing grants, etc., is not effort that the federal government will pay for, so if one's effort is at 100%, the federal government will ask when the person is preparing grant applications).

-- Policy has been changed so that non-faculty can be designated to certify other non-faculty in a lab, so PIs can rely on technical staff to report on other employees.

-- Where there are joint appointments, approval is now delegated to the primary department and only one signature will be required.

-- Responsible Conduct of Research (RCR) training has been revised. Everyone is required to take some parts, such as about University citizenship, but other parts not everyone must do. If someone decides to submit a request for external funding, for example, he or she would be required to complete training modules dealing with grants management. Much of the training will be online and they are trying to develop versions with disciplinary-specific modules, examples and case studies (e.g., the social sciences edition will not be the same as that for the biomedical sciences). Some training will require face-to-face time, which the faculty advisory group for RCR recommends. There will be different training modules for small grants with little discretion and little potential for abuse.

-- There have been several changes in Patents and Technology Marketing, which will be reported later.

-- The most complicated area in which they are making strides is research subjects protection (animal and human subjects). There are a lot of issues related to the IRB, falling into two general categories: administration (how they handle information) and scope (what the appropriate role of an IRB is and what it should and should not consider). He has appointed two faculty advisory committees, one for the biomedical and one for the social sciences, to provide him advice.

-- He has asked the research subject protection office to develop new ways to process proposals so that reviews and approvals can be completed in a more timely way.

-- The IRB roster is now on the website (in the past, the membership was confidential in order to avoid people trying to influence individual IRB members). Dr. Mulcahy said he believes faculty should know who is reviewing their materials.

-- Several faculty said they understood that there will be times when they disagree with an IRB decision but did not know how to appeal. There is now an appeal process to have a decision reviewed.

-- In the past, the biosafety committee (IBC) reported to Facility Management, and was not well integrated with other research-related review functions. Responsibility for the IBC was recently transferred to the OVPR and is being administered by the research subjects protection office (RSPP).

Professor Ruggles complimented Vice President Mulcahy on the changes he has been able to make.

Ms. McKinney asked if there was student participation in the changes. Dr. Mulcahy said there was; they did not ask for identifiers when the suggestions were received, but he said he knows that some of them came from students.

Dr. Mulcahy affirmed, in response to a question from Professor Seybold, that a system to support preparation of training grant proposals could also be developed and populated with data in an electronic system. They also hope to use such a system to facilitate preparation of complex interdisciplinary research proposals so that investigators do not have to track down routine data. In order for any electronic system to work, of course, faculty will need to keep their information up to date.

Professor Johnson noted that the forms one fills out increasingly take notice of technology transfer and patents and licensing benefits; has his office thought about the unintended consequences of the path the University is going down? For example, intellectual property is being tied up as not in the past because companies want to own it. Things that were shared in the past are not now; is that worrisome? It is, Dr. Mulcahy said, and he said he would like to talk more about that issue later. He started to work on this issue in the last few months, and is hearing from the University's strategic corporate partners that the University is commonly on their list of capable places to work with—but often not on the desirable list because the University has historically been difficult to deal with. He said he has asked the staff to reconsider the University's stance on intellectual property issues at the beginning of discussions placing a greater premium on long-term relationships between the University and the corporate partners. He said he would like to ease the tensions between outside sponsors and University and try to handle the issues more flexibly. Once intellectual property is tied up, only the company can do the science, Professor Johnson said, but that may not be the same way it would be done at the University—or with the same outcomes. Once something has been licensed, there is also reduced cooperation in interdisciplinary work, Professor Johnson added. Dr. Mulcahy said he would like a session with the Committee on this topic.

Professor Ruggles commented that colleges don't necessarily want to be in the routing chain for a PRF because they want information—they want to be in the routing chain so they can exact their pound of flesh. Dr. Mulcahy agreed that there may be an element of that attitude in the resistance to changing the

PRF process, but in the new budget model it is more and more important that colleges know where faculty are spending their time and that they are appropriately credited for ICR generation since these funds will be important to cover costs for services assigned under the auspices of the new budget model. There is definitely a legitimate reason for colleges to want access to the data provided by the current PRF. The question is whether they must sign off on the forms, especially if they are not committing time, space, or money. There is a need for information if they are committing funds or are involved in cost-sharing.

They could send an email to everyone letting them know the PRF has been approved, Professor Ruggles said, and he then asked who would sign if only one signature were required. The department chair or center director would most likely be most familiar with the information, but the colleges are responsible. Even if there is a requirement for two signatures—department chair and dean's office—that would be a significant improvement over the present process, Dr. Mulcahy said. Departments say they have a legitimate interest in knowing about faculty effort, because someone might buy out their teaching, Professor Ruggles said; Dr. Mulcahy agreed but asked if they needed to know about it at the time the application goes out or can deal with it later—especially at a time when nearly 85% of grants are not funded. And there are department heads who would block a proposal because they believe they need teaching more than they need research, Professor Ruggles said, and they should not be able to do that.

Departments and colleges have a legitimate reason for having the information, Dr. Mulcahy summarized, but there is need for a culture change so that they do not all need to sign off on the forms. Professor Ruggles said he believed that if the office for collaborative research can identify guidelines for indirect costs and other contentious issues, 90% of the concerns of colleges and departments would disappear.

3. Technology Transfer and Intellectual Property Matters

Vice President Mulcahy distributed copies of one-page diagram illuminating revisions in intellectual property disclosure, patents, licensing, and so on. One charge he received when he came to the University was to enhance productivity in technology transfer (the University was doing a good job but it needed to improve). Recommendations for revisions came from an internal and external groups of advisors.

One major change recently implemented is the hiring of three technology liaisons, having technology backgrounds in health, engineering, and agricultural/food research areas. These individuals serve as a conduit between faculty and the patent process. The liaisons meet with faculty in the colleges, raise awareness of technology transfer, advise on the likelihood of patent and licensing, and will augment Patents and Technology Marketing licensing associates—the liaisons will play a more active role in helping faculty.

Another change involves the establishment of an IP Commitment Committee to evaluate intellectual property disclosures to decide whether the University should invest in the cost of a patent, waive the University's interest, or determine that something is not quite ready and the researcher should be provided an innovation grant to help with further development. The committee will also decide if the technology is most appropriate for licensing or if it has potential for a start-up opportunity in which the University might take an equity interest. The item is forwarded to the Licensing Center for an assessment of market value. The change is that the University is much more active in marketing and working with

the external community to generate interest in promising technologies in the pipeline. There will also be more monitoring of milestones (in the past, the University has not been assertive on this score, and sometimes things have gone cold). They have also established a Venture Center, part of the Office of Business Development, to work with start-up companies and also to monitor milestones (again, because there have been some examples in which start-up companies with licenses for University technology have failed to meet their promises). The Venture Center will be more business-savvy than the University has been in the past in order to increase the likelihood that a start-up company will get going successfully.

There will be more disciplined decision-making, Dr. Mulcahy said, both inside as well as with the external community, and he believes the University will do better in the long run as a result. These changes should accelerate the translations of University intellectual property to the public good. There is much that needs to be changed in Patents and Technology Marketing and in the Office of Business Development to make these changes work, but faculty should see a more responsive and interactive system than at present. He noted that in the cases where he is involved with candidates for faculty positions (a few), how the University handles intellectual property was an important issue; universities across the country are seeing this is more important.

This is where the question he asked earlier arises, Professor Johnson said. Dr. Mulcahy agreed. They are trying to address the issues on the two ends of the process, one, when the University has something that it is trying to license, and two, when it is trying to partner with an organization but no one has any idea if at the end of the day there will be intellectual property. There is need to talk about both aspects of the process.

Professor Seybold asked about the IP Commitment Committee. Dr. Mulcahy reported that it is chaired by Vice President Muscoplat and includes the directors of the Licensing Center and the Venture Center as well as others in licensing and patents. It also includes two ad hoc groups, one of faculty, a pool who can be drawn on depending on the technology, and the other of external advisors. The latter is an important group because the University has been criticized for relying too much on internal expertise and not taken counsel from "the real world." They will use the external advisors on an ad hoc basis. They are also insisting on a more quantitative assessment of the likely success of a product because patenting is an expensive process; there is need to focus the time, energy, and resources where (1) there is a good chance for a payoff or (2) where the University can address critical public or social needs even if there is no big payoff.

Professor Luby said these changes go in the right direction. In terms of staffing, he said the technology liaisons work at the front end of the process, but another pressure point is marketing and monitoring milestones, something the University has not been good at. Dr. Mulcahy said there probably would be one additional staff member (perhaps a replacement) with a strong market analysis background who has experience in the value of intellectual property and can make recommendations to the IP Commitment Committee. The University does not have that expertise in house.

Dr. Mulcahy said that initially he anticipates there will be more information available but that there will not be as many patents until the process of seeking has become more effective. He expects that some staff will see a workload release in order to be more attentive to post-license or post-patent performance. There are also opportunities in the University to be more efficient in order to relieve pressure on licensing associates. Dr. Mulcahy said he wanted the record to reflect the fact that Patents

and Technology Marketing has done a great job and it ranks highly; he wants to be sure that performance continues.

Professor Dahlberg asked what the University gets from all these efforts. Last year it received just under \$50 million, Dr. Mulcahy said, of which about \$40 million came from Glaxo for Ziagen. Without the Glaxo money, the University would have earned \$4-5 million, which would put it in the middle of pack compared to its peers. He said he would like to see that amount increase significantly. The Bayh-Dole Act was adopted so that universities would own and license intellectual property; it requires that income be shared with the inventors. At the University the remainder is split between the department, college, and his office; last year he received about \$17 million, which went to fellowships and the 21st Century endowment, to grant matches, and investment in databases and electronic systems and other improvements in the research infrastructure. About two-thirds of the money the University receives goes back into the academic mission.

Are there benchmarks, Professor Dahlberg asked, to see if the investment was successful? If so, is this used to modify the investment criteria? Is there a time scale for this process? Dr. Mulcahy said he looks at the University's accomplishments without the Glaxo funds. (The Glaxo dollars have been great for the University, but it was a lighting strike, which few universities have.) He said he wants to provide an environment that is supportive so it can capture the next lighting strike, and said he would like to see a 20% increase in patent and licensing income each year for the next several years.

Fellowships are great, Professor Johnson said, but they are not very strategic. He said that Dr. Mulcahy could invest in the research mission goals and benchmarks or the money could be frittered away—because there are a lot of things that one can spend the money on. The investment in the 21st Century endowment was made before he arrived at the University but would have made the same choice had he been here. He said he is trying to be more strategic with the funds that come to his office, and the strategic positioning task forces identified some opportunities.

Professor Ruggles thanked Vice President Mulcahy for his discussion and commented that it appears there are substantial and dramatic changes in research administration, something for which the Committee is grateful. Dr. Mulcahy thanked him, agreed, and said the staff in the research offices worked hard to effect these changes. They need to know they are empowered to make these kinds of improvements.

Professor Ruggles adjourned the meeting at 3:00.

-- Gary Engstrand