The University Senate

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UNIVERSITY OF MINNESOTA

Senate Research Committee (SRC)

February 3, 2025

Minutes of the Meeting

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[In these minutes: State of Research Enterprise: Annual Report; Research in the School of Public Health and College of Pharmacy: Barriers and Opportunities; Overview of New Quick Guides for MN-GEMS; Identify Possible Chairs for 2025-2026; Identify Potential Speakers for Spring Semester Based on Priorities]

PRESENT: Shashi Shekhar, chair, Hatley Christensen, Jody Gray, Jon Guden, Joleen Hadrich, Daniel Harki, Boyen Huang, Beth Lewis, Emma Molls, Nicole Pilman, Shashank Priya, Courtney Roberts, Jayanthi Sasisekaran, Pamela Webb, Shaker Zahra

REGRETS: Jimmy Schryver

ABSENT: Courtney Aldrich, Jovany Betancourt, Liam Chen, Stephen Contag, Peter Crawford, Kateryna Kostenkova, Vinal Menon, JB Shank, Abhvaith Sridhar, Jaideep Srivastava, Gavin Wilson

OTHERS ATTENDING: Carolyn Fairbanks, associate dean for research, College of Pharmacy, Nancy Sherwood, associate dean for research, School of Public Health,

Laurie Cooper Stoll, director of University Senate Office and University Awards and Honors Program

1. Call to Order

Professor Shashi Shekhar, chair, called the meeting to order and invited committee members to raise questions about the impact of recent executive orders on research funding and programs. Pamela Webb explained that two main types of communications have been issued in response to recent executive orders. The first type consists of general communications from agencies to universities about changes affecting all their programs, such as stopping DEI activities and restrictions on foreign financial assistance. Five agencies—CDC, NASA, the Department of Energy, NSF, and HRSA—have issued such directives. However, a temporary restraining order has been put in place, and general counsel is assessing its impact.

The second type of communication involves individual project stop-work orders, with six or seven currently in effect. Webb noted that the number could increase due to the rapidly evolving situation. Investigators affected by these orders will receive an official notice of grant award (NOGA) instructing them to cease work, along with a copy of the agency's communication. If a stop-work order applies to a sub-award, those sub-awards will also have to be halted. Conversely, if the university were a subrecipient and received such an order, work at the university would also stop.

Shekhar sought clarification on whether the stop orders were primarily related to DEI or if they extended to other topics like climate initiatives. Webb confirmed that most were related to DEI or gender-related issues, but foreign aid restrictions also applied to sub-awards for foreign entities. Courtney Roberts inquired whether any stop-work orders had been placed on REU programs for undergraduates, as many contained DEI language and required imminent decisions. Webb has not seen any such orders but plans to ensure affected faculty will be promptly informed if that changes.

2. State of Research Enterprise: Annual Report

Shashank Priya, vice president for research, then presented his annual report, "State of the Research Enterprise," to the committee. His presentation summarized research funding trends, highlighting distinctions between awards and expenditure data. Sponsored research awards reached $1.06 billion, with a 10% increase in expenditures, though growth was expected to slow. Despite an increase in high-dollar awards, their total funding declined by 16%, and business and industry funding dropped by 29%. NIH remained the largest funding source but saw a $50 million decrease. While total awards stayed above $1 billion, a 6% decline from FY23 underscored the need for stronger industry partnerships. Research expenditures on the Twin Cities campus reached $1.32 billion, maintaining its 12th-place ranking among U.S. public institutions, with efforts underway to increase indirect cost recovery.

The university sustained its top 10 position among U.S. public institutions in the Shanghai rankings but dropped to 26th overall, emphasizing the importance of faculty recognition and high-impact publications. With approximately 15,000 graduates, 750 postdocs, and thousands of research publications and patents annually, the university plays a key role in public impact through startup creation. Since 2006, over 260 startups have been founded, with more than 70% remaining in Minnesota. Future growth strategies are focused on research leadership, funding diversification, and industry collaboration.

Key initiatives include the FAARM project, using AI to study nutrition's link to diseases, and the biomanufacturing initiative under President Biden's agenda, aimed at producing sustainable alternatives to traditional materials. The Sustainable Geo-Communities project tackled waste recycling, while national security efforts leveraged Minnesota's microelectronics industry, with plans to develop an industry-scale clean room.

Priya discussed the university's goal of reaching the top 10 in research rankings by increasing funding, particularly from the Department of Defense (DoD) and NIH. A major challenge was faculty unfamiliarity with DoD funding processes, prompting efforts to build relationships with program managers. While concerns about academic freedom were raised, Priya clarified that DoD research, focused on fundamental science, supporting innovation and high-impact publications. Encouraging student internships and faculty summer visits with DoD labs was suggested as a strategy to build

relationships, understand DOD needs, and strengthen whitepapers and proposals. The discussion concluded with an open invitation for further faculty input and collaboration to strengthen the university's research enterprise.

3. Research in the School of Public Health and College of Pharmacy: Barriers and Opportunities

Nancy Sherwood, associate dean for research, School of Public Health, and Carolyn Fairbanks, associate dean for research, College of Pharmacy, then discussed research opportunities and barriers with the committee. Sherwood shared that the School of Public Health had recently appointed an associate dean for research, with a focus on supporting faculty grant development. She highlighted the program, Sweep, which assists with technical writing, grant editing, and external reviews. The school also developed a cohort-based program tied to the NIH Grant cycle for faculty and trainees. Additionally, the school aims to create a toolkit for grant submissions. The focus is on expanding their research portfolio, with potential growth in Department of Defense funding and large center grants. Challenges included navigating uncertainty around resubmitting grants and adapting to the changing environment.

Fairbanks described the College of Pharmacy's research portfolio and explained the college's research scope, which spans from the discovery of therapeutic targets to clinical translation and implementation. Fairbanks highlighted the college's position as the 10th in the U.S. for total research dollars, with most funding from the NIH. She discussed the college's commitment to graduate education, emphasizing the importance of postdoctoral fellows and their contributions to research. Fairbanks outlined opportunities and challenges the college faces, including enhancing research infrastructure, improving grant processes, and translating discoveries into practice through commercialization. She also shared examples of successful interdisciplinary collaborations and highlighted key programs like the Institute of Therapeutics Discovery and Development and the Center for Orphan Drug Research. She concluded by discussing a significant achievement: the development of the first non-hormonal male contraceptive, which was progressing through clinical trials.

Shekhar opened the floor for questions. He mentioned the Nobel Prizes in chemistry and physics, which has AI connections, particularly in drug design, and asked if AI added value in medicinal chemistry. Fairbanks deferred the question to Dan Harki, who explained that there was significant discussion about AI in drug discovery, with the professional organization for medicinal chemistry even hosting a webinar on the topic. While their faculty did not have direct expertise in AI, there was interest in it, and they were looking to recruit faculty in this area.

Shekhar mentioned a system-wide Data Science Institute, involving the medical school, and suggested collaborating with them. Emma Molls asked about successful research collaborations, to which Sherwood mentioned organic collaborations through programs like CTSI and the Hennepin Hub, which incentivized research partnerships. Fairbanks added that interdisciplinary funding mechanisms and shared spaces in university buildings could also foster collaboration.

Priya expressed interest in creating a large team for Alzheimer's research and other diseases to present to philanthropy or foundations. Fairbanks clarified that many of these groups already collaborated, and it was just a matter of mapping and connecting existing efforts. Priya suggested creating a webpage to showcase these collaborations for fundraising efforts, highlighting important research domains like antimicrobial resistance and antibiotic resistance. Both Fairbanks and Sherwood agreed that the university should leverage existing tools to highlight collaboration.

4. Overview of New Quick Guides for MN-GEMS

Pamela Webb then gave a presentation to the committee entitled, "How to Check Status in MN-GEMS." Webb discussed the introduction of new guides for MN-GEMS, which includes quick and reference guides for checking the status of projects in MN-GEMS. Seven quick guides are available, covering various activities such as proposal submissions, award processing, award modifications, sub-awards, and industry-related research agreements. She demonstrated how to navigate the system, highlighting the importance of the "history" and "reviewers" tabs for tracking progress and reviews. She encouraged users to explore and familiarize themselves with the system. While some users are still adjusting, overall, MN-GEMS has processed over 11,000 transactions.

Webb noted that training on sub-awards had been particularly useful. She expected that by the anniversary of MN-GEMS, in late April, the system would be routine for most users. Shekhar suggested sharing the information with department heads and PIs, which Webb agreed to do.

5. Identify Possible Chairs for 2025-2026

Laurie Cooper Stoll discussed the need for a new chair of SRC next academic year. She encouraged committee members to share suggestions, and Shekhar confirmed that self-nominations were allowed. He also clarified the time commitment for the role. Stoll noted that the chair term is for one year, but individuals can serve multiple terms if eligible. Shekhar offered his assistance to anyone interested in the chair role, sharing his own experience. There is a stipend for the SRC chair.

6. Identify Potential Speakers for Spring Semester Based on Priorities

Cooper Stoll then mentioned that the committee had previously been asked for feedback on potential speakers for the current semester, with some suggestions already coming in, including a discussion on the impact of the new administration on research funding. Shekhar suggested inviting someone from the newly formed AI task force appointed by the president. Molls suggested hearing more about the President's goals for expanding the medical program, particularly concerning hospital partnerships. Harki recommended Jakub Tolar as a suitable speaker, noting the uncertainty surrounding the potential merger with Fairview. Roberts proposed a discussion on the implications of the recently ratified graduate student union contract, specifically how it affected research assistants. She suggested Victor Barocas, from the Bargaining Committee, as a possible speaker. Harki added that Scott Lanyon, the Dean of Graduate Studies, could also provide useful insights on the matter.

7. Adjournment

Hearing no further business, Shekhar adjourned the meeting.

Laurie Cooper Stoll
University Senate Office