Research Policy Committee Minutes
Tuesday, December 18, 2018
2:30-4pm
Topic: **UM Research on All Three Campuses**
Fleming 4006
Chaired by Francine Dolins

Members present: Jake Carlson, Irene St. Charles, Yi-Su Chen, William Close, Mimi Dalaly, Francine Dolins, Nick Harris, Tim Guetterman, Jinghyun (Jessie) Lee
Absent: Marisa Conte, Albert Liang, Niccolo Biltramo, Austin Glass, Nocona Sanders Kate Eaton

I. **Printed copies of the minutes from the November 2018 meeting missing; will review and approve in the January meeting.**
II. **Guest Speakers:**

A. Professor Jack Hu
Topic: Michigan Research Annual Report FY2018

1). Approximately $1.55 billion research expenditure

No state support for research compared to other state universities.

UMich is the top public university in terms of research expenditure (UC San Francisco and Penn State close behind); the top private university in terms of research expenditure is Johns Hopkins (because of DOD and Navy research – over $200 billion).

Medicine is the top in research expenditure, with engineering and public health following. Tech transfer had a good year; 21 faculty start-ups is a record number. Patent revenue reimbursement and licensed patents are major supports for patents and revenue. It was about 70% and is now only 40%, causing some issues for funding the patent program.

2). The culture of research compliance is better; no major issues this past year.

Of the research misconduct reported, it was mainly plagiarism and data fabrication. We are behind in the research misconduct investigation.

We have been holding responsible research and conduct training as required for federal grants: however, there is no tracking mechanism for making sure that this training has been completed by all faculty, grad students and post-docs. There is still work to do in this area.

3). Research support interface: Daryl Weinert has left UMich and will be missed greatly. There is a search to fill his position. The excellent work that he began continues.

4). IT: Dr. Andrew Rosenberg is now Chief Information Officer of Michigan Medicine and Vice President of Information Technology. Dr. Ravi Pendse is now Vice President of Information Technology and Chief Information Officer.

5). UMOR has three main objectives: 1 - Catalyze opportunities, 2 - support independent research and scholarship, and 3 - safeguard University research.

We continue to build a good culture of research at UMich. However, there has been a reduction in federal funding under Trump administration and a reduction in overhead costs allowed. The question is, can and will the government continue to invest in research in the way that it has done?

[From UM Research FY2018 Annual Report]

RESEARCH TO SERVE THE WORLD.

The University of Michigan embraces the vision above as researchers across campus work together to advance knowledge, solve challenging societal problems, create new products and services that enhance quality of life, and support students and postdoctoral fellows in research and training.

Academic research requires the support of many, including the federal government and industry partners. As credit to our altruistic staff, innovative faculty and strong external collaboration, U-M has conducted the largest volume of research of any public university in the United States for eight consecutive years.

Research expenditures totaled $1.55 billion in Fiscal Year 2018, a record high and the ninth year in a row that U-M research expenditures have exceeded $1 billion.

The federal government remains an essential partner in our research endeavors, investing $852 million in FY 2018 to support U-M research that strengthens national security, improves public health and bolsters economic competitiveness. To put that into perspective, federal support equated to 55 percent of our total research volume last year.

As vice president for research, I am grateful for the opportunity to work with faculty, staff and students across campus who are driven to impact society for the greater good. Moving forward, the U-M Office of Research will continue to collaborate with our partners on campus and beyond to catalyze, support and safeguard university research, with the ultimate goal of serving the world.

S. Jack Hu
Vice President for Research

RESEARCH IN ACTION

U-M received several large awards during FY 2018, which funded research ranging from computing to cavities.

Innovative Computing

The computing industry is working to maintain its historically rapid pace of innovation. With $27.5 million in support, led by the Semiconductor Research Corporation, U-M established a new center to streamline and democratize the design and manufacturing of next-generation computing systems.

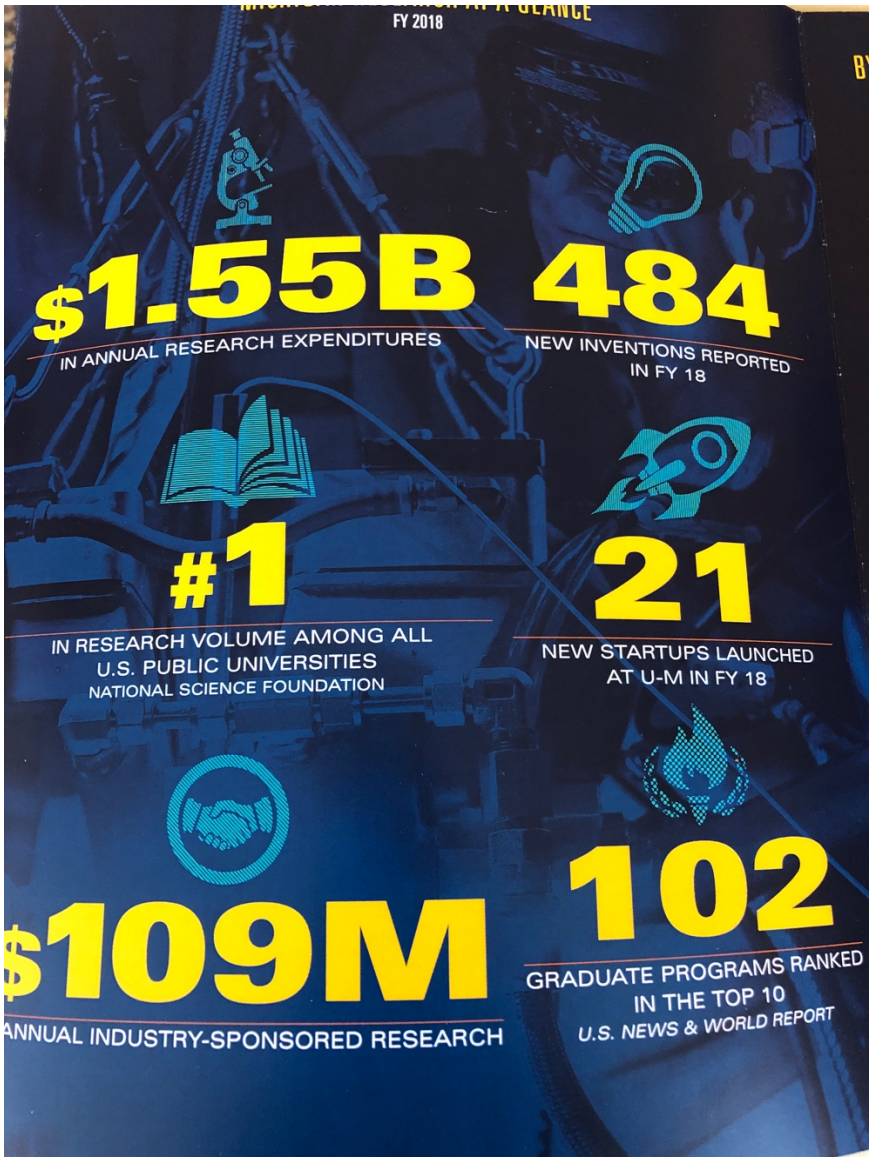
Income Dynamics

The Panel Study of Income Dynamics, directed by faculty in the Institute for Social Research, is the world's longest running longitudinal household survey. In support of the survey, the National Science Foundation awarded U-M $15.8 million so that researchers could explore continuity and change in American economic and social life.

Cavities in Kids

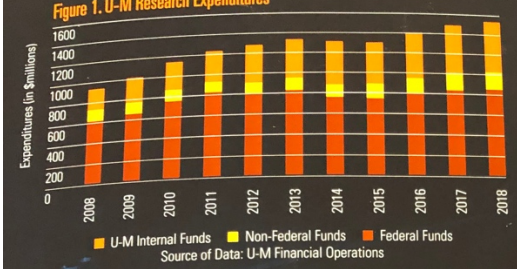
Though largely preventable, about 23 percent of U.S. children aged 2-5 have cavities. The National Institutes of Health awarded two grants totaling $18.3 million to U-M so that researchers could better predict cavity risk in young children and assess the efficacy of new treatments.

On the Cover
At Mcity, U-M brings together partners from industry, government and academia to develop the foundation for an ecosystem of connected and automated vehicles for moving people and goods. Photo: Levi Hutmacher/Michigan Engineering


FY 2018
$1.55B
IN ANNUAL RESEARCH EXPENDITURES
484
NEW INVENTIONS REPORTED IN FY 18
#1
IN RESEARCH VOLUME AMONG ALL U.S. PUBLIC UNIVERSITIES
NATIONAL SCIENCE FOUNDATION
21
NEW STARTUPS LAUNCHED AT U-M IN FY 18
$109M
ANNUAL INDUSTRY-SPONSORED RESEARCH
102
GRADUATE PROGRAMS RANKED IN THE TOP 10
U.S. NEWS & WORLD REPORT

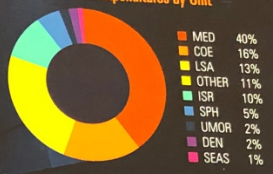
BY THE NUMBERS

Figure 1. U-M Research Expenditures



Source of Data: U-M Financial Operations

Figure 3. Research Expenditures by Unit



Source of Data: U-M Financial Operations

Figure 2. U-M Federal Funding by Agency

Source of Data: U-M Financial Operations

Table 1. Technology Transfer Results

	FY18	FY17
New Startups*	21	12
New Inventions*	484	444
U.S. Patents Issued	169	172
License & Option Agreements*	218	173

*Denotes U-M Record

Source of Data: U-M Office of Technology Transfer

B. Q&A with Dr. Hu:

1 - Payment for researchers on grants?

2 – Compared to private universities, e.g., Johns Hopkins how is UMich doing? As a point of comparison, Georgia Tech spends about $300 million on research salaries; research staff and faculty have minimum of cross over.

3 – Are there other initiatives to leverage research resources and/or funding opportunities across campuses other than MCubed? The VP of Research has some ability to help seed fund very promising projects as does UMOR.

4 – How do we sustain careers for 30+ years with the changes in funding available and the business model for promotion and tenure? Faculty research has difficulties when funding is difficult and teaching can also be impacted. For the few faculty members who have that furlough year, split over 3-4 years, with 25% reduction effort, to 50% reduction effort… and so on until

gradual transition for faculty towards retirement. The new office of Enterprise Risk Management partially helps with these issues.
Also, some faculty could put money away in discretionary accounts for a rainy day but this is not the best mechanism for individual faculty to count on.
There is also the re-use of data and reproducibility. For this to succeed, the libraries are central to these processes. To support researchers, the libraries have a mandate to follow and obtain resources to help them.

C. Professor Ilir Miteza

1). UM-Dearborn has about 9000 students, of which approximately 2000 are graduate students. The volume of research enterprise is about $8million per year.
The Campus is very decentralized, which is both good and bad. The goal is to reap a greater amount of creativity from the high-quality faculty at UM-D. So far, the Campus has been productive with research for its size. But this is not enough; the new chancellor, Dr. Grasso, has a strong focus on building research within UM-D. This entails a focus on building support systems, infrastructure for high performance pedagogy as well as research.
ORSP at UM-D only 3 staff with now a new director. Research admin and research development.
Strategic research plan for UM-D – was too introverted as a plan and based on support. But it wasn't enough. Coincided with new Chancellor Grasso, puts research as a priority. Elevating quality and consequential and impact of research. UM-D in past closely tied to industry. We are now thinking about how to build a research environment and culture that supports more than would be expected.
3 main drivers that could have impact on creating research environment:
1 – P&T
2 – faculty time (because of high teaching loads); most faculty teach 3:3 per year.
None of these areas can improve in the redesign. e.g., different faculty tracks – some for teaching, some for research, especially if made flexible, faculty can shift onto different tracks as needed.
3 – faculty scholarly positioning – help faculty plan long-term for scholarly networks and in publishing
4 – merit pay, research incentives

2). Additional ways to encourage research:
New organizational structures for research by division or by interdisciplinary areas.
Improved support for faculty to help them do better at what they do.
New director of research will create research opportunities and development. Which team of faculty can be put together to support an interdisciplinary proposal?

Campus grants are more seed programs, more competitive.

Currently – creating a post-award support program on campus.

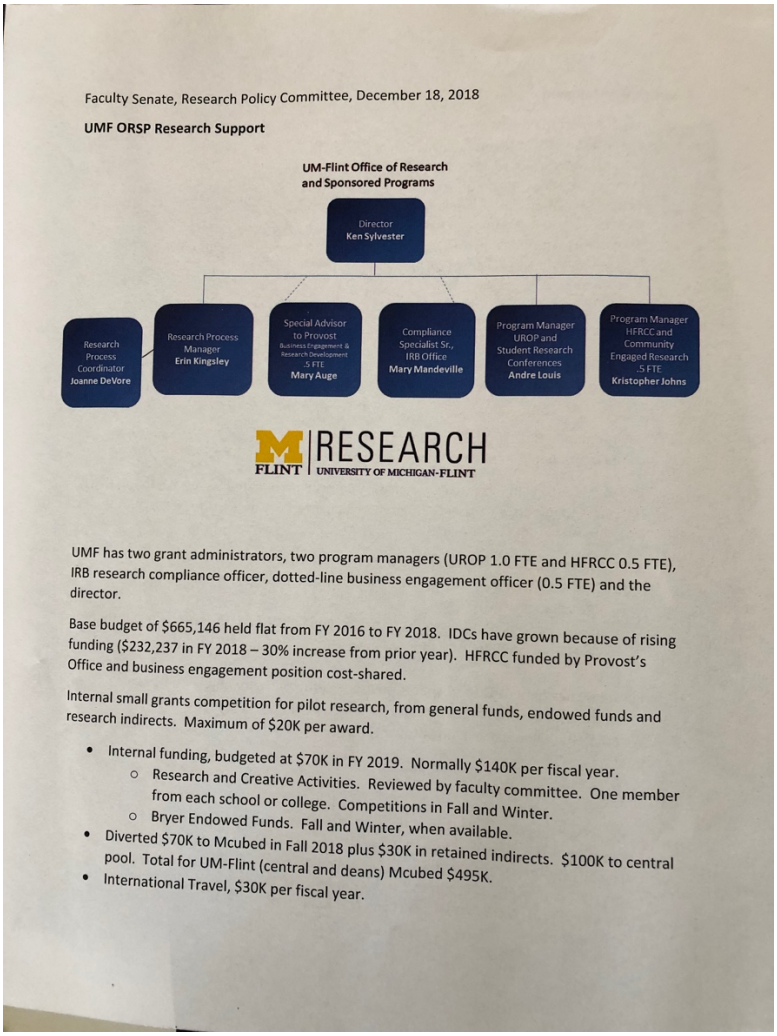
Pre-award support important. Labs and equipment in budget model within colleges.

Implementing research goals or targets at every level (e.g., depts don't have these): about publications and other creative work.

Student to faculty ratio – do faculty have time to work with students on research? Class size is a main issue.

D. Professor Ken Sylvester

1). UM-F ORSP Research Document.



Faculty Senate, Research Policy Committee, December 18, 2018

UMF ORSP Research Support

UM-Flint Office of Research and Sponsored Programs

Director
Ken Sylvester

Research Process Coordinator
Joanne DeVore

Research Process Manager
Erin Kingsley

Special Advisor to Provost
Business Engagement & Research Development
.5 FTE
Mary Auge

Compliance Specialist Sr., IRB Office
Mary Mandeville

Program Manager UROP and Student Research Conferences
Andre Louis

Program Manager HFRCC and Community Engaged Research
.5 FTE
Kristopher Johns

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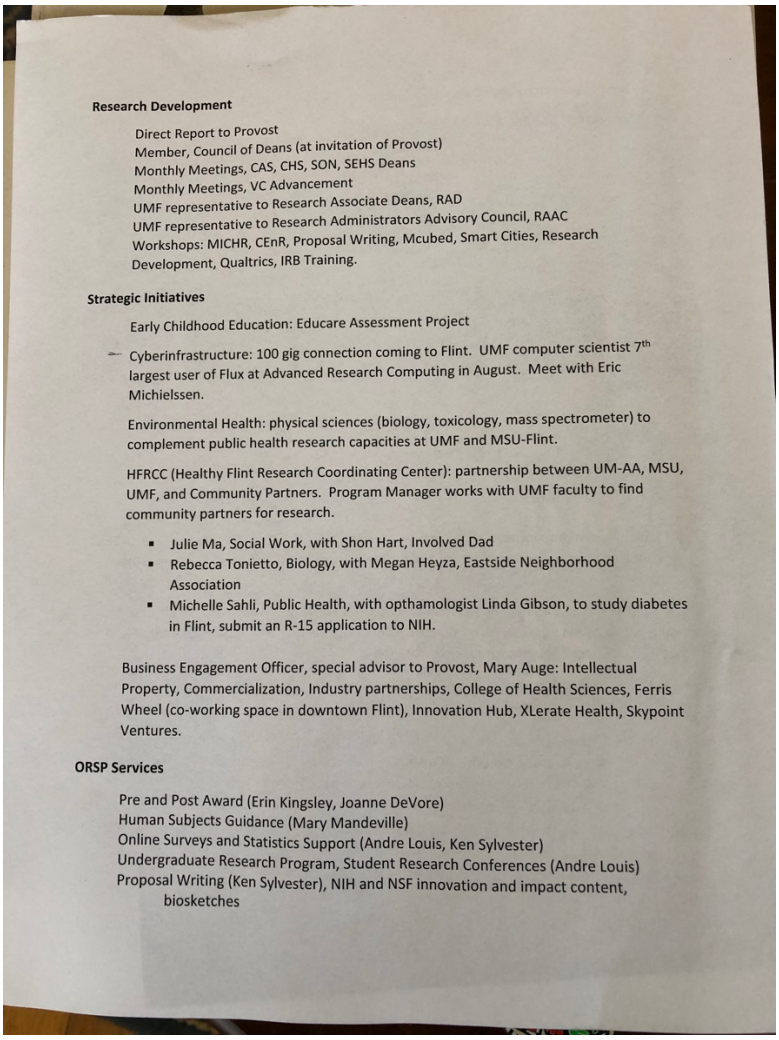
UMF has two grant administrators, two program managers (UROP 1.0 FTE and HFRCC 0.5 FTE), IRB research compliance officer, dotted-line business engagement officer (0.5 FTE) and the director.

Base budget of $665,146 held flat from FY 2016 to FY 2018. IDCs have grown because of rising funding ($232,237 in FY 2018 – 30% increase from prior year). HFRCC funded by Provost's Office and business engagement position cost-shared.

Internal small grants competition for pilot research, from general funds, endowed funds and research indirects. Maximum of $20K per award.

- Internal funding, budgeted at $70K in FY 2019. Normally $140K per fiscal year.
  - Research and Creative Activities. Reviewed by faculty committee. One member from each school or college. Competitions in Fall and Winter.
  - Bryer Endowed Funds. Fall and Winter, when available.
- Diverted $70K to Mcubed in Fall 2018 plus $30K in retained indirects. $100K to central pool. Total for UM-Flint (central and deans) Mcubed $495K.
- International Travel, $30K per fiscal year.



Research Development

Direct Report to Provost
Member, Council of Deans (at invitation of Provost)
Monthly Meetings, CAS, CHS, SON, SEHS Deans
Monthly Meetings, VC Advancement
UMF representative to Research Associate Deans, RAD
UMF representative to Research Administrators Advisory Council, RAAC
Workshops: MICHR, CEnR, Proposal Writing, Mcubed, Smart Cities, Research Development, Qualtrics, IRB Training.

Strategic Initiatives

Early Childhood Education: Educare Assessment Project

Cyberinfrastructure: 100 gig connection coming to Flint. UMF computer scientist 7th largest user of Flux at Advanced Research Computing in August. Meet with Eric Michielssen.

Environmental Health: physical sciences (biology, toxicology, mass spectrometer) to complement public health research capacities at UMF and MSU-Flint.

HFRCC (Healthy Flint Research Coordinating Center): partnership between UM-AA, MSU, UMF, and Community Partners. Program Manager works with UMF faculty to find community partners for research.

- Julie Ma, Social Work, with Shon Hart, Involved Dad
- Rebecca Tonietto, Biology, with Megan Heyza, Eastside Neighborhood Association
- Michelle Sahli, Public Health, with opthamologist Linda Gibson, to study diabetes in Flint, submit an R-15 application to NIH.

Business Engagement Officer, special advisor to Provost, Mary Auge: Intellectual Property, Commercialization, Industry partnerships, College of Health Sciences, Ferris Wheel (co-working space in downtown Flint), Innovation Hub, XLerate Health, Skypoint Ventures.

ORSP Services

Pre and Post Award (Erin Kingsley, Joanne DeVore)
Human Subjects Guidance (Mary Mandeville)
Online Surveys and Statistics Support (Andre Louis, Ken Sylvester)
Undergraduate Research Program, Student Research Conferences (Andre Louis)
Proposal Writing (Ken Sylvester), NIH and NSF innovation and impact content, biosketches

2). UROP at Flint has about about 120 students involved – about $500 stipend to students
Program for Flint students at UM-AA bec of water crisis.
Base budget for research is flat but foundation funding has increased and helps with capacity building.
Diverted $70,000 to MCubed this year. Total for MCubed was $495K (See information about the budget from the UM-F ORSP Research Document.)
Fund international travel for conferences mainly arts and sciences.

2). Trauma in community (re. the water crisis) has increased funding for research. For example, early childhood issues regarding effects of lead.

3). Flint is a commuter school; there is not as much public engagement as could be.
There is now an early childhood initiative which Mott and GM have invested in; Buffet have invested in a new building to support this.

4). 100 gig pipeline is coming to UM-Flint and UM-D.

5). Physical science is not as strong at UM-Flint; MSU-Flint is much stronger. More work to be done in supporting and encouraging this area.

E. Q&A with Drs. Hu, Miteza and Sylvester:

1). Prof Miteza: we use/leverage the ORSP office for support.

2). Prof Hu: The IRB vice chair from UM-D will now be part of UM-D IRB as it was folded into UM-AA IRB.

3). Prof Miteza: Chancellor Grasso aspires to excellence in research at UM-D, that over time will elevate the norm. However, not all faculty will be able to do excellent research. Two or three lines will help facilitate this process – a research faculty line, a teaching line, and some combination of the two.

4). Q: Francois Beaufay: Regarding Post-docs: they would like to get teaching opportunities and training other students. Postdoc presence on campus would help in other ways too, as role models for students, etc.

III. Announcements: none.

The meeting was adjourned at 4pm.