Pre-Award Beyond the Budget: Promoting Research Development at the Unit Level

Anna Brailovsky, Grants Coordinator for the Social Sciences
College of Liberal Arts
What is Research Development?

Any activity that makes our researchers ultimately more competitive for funding participates in and contributes to Research Development at the University of Minnesota

• Proposal submission support and proposal development assistance
• Communication hub/Information clearinghouse
• Grantsmanship expertise, resources, and education
• Faculty development and facilitation of collaboration
• External engagement/broader impacts
• Government/business relations
• Setting research priorities at the institutional level
Characteristics of Research Development

• Proactive rather than responsive

• Strategic rather than ad hoc

• Collaborative by nature

Effective RD professionals anticipate needs, consolidate available resources, and bring many players to the table to strengthen a researcher’s ability to conduct a project at every stage, from concept to dissemination of results.
RESEARCH DEVELOPMENT CAN BE VISIONARY

THE STEAM FACTORY

FACILITATING A CULTURE OF INTERDISCIPLINARY COLLABORATION

WHO WE ARE
WHAT WE DO
UPCOMING EVENTS

Founded by a collection of young and energetic Ohio State faculty, postdocs and staff, the STEAM Factory is a diverse and inclusive grass-roots network in the Ohio State community that facilitates creative and interdisciplinary collaboration, innovation and dissemination.

Our Goals
- To provide opportunities for collaboration that enhance and drive innovation within all research disciplines;
- To provide linkages and interdisciplinary interactions between Ohio State departments and colleges; and
- To increase the public awareness, understanding and impact of Ohio State research.
STRATEGIC RESEARCH INITIATIVES

PROPOSAL DEVELOPMENT RESOURCES

Strategic Research Initiatives maintains several resources to help college faculty prepare competitive proposals.

If you're working on a major, multimillion-dollar center grant that involves multiple PIs and/or colleges, Strategic Research Initiatives is here to help. Learn more about our proposal development services for major center grants.

If you're working on a single-investigator or small-group proposal, Strategic Research Initiatives offers one-on-one consultations at your convenience. Contact us to schedule a consultation. We're happy to travel to your office.

Our website also contains inventories of college resources and suggested best practices to assist PIs drafting single-Investigator proposals. Please browse the pages listed in the sidebar at left or visit the links below to learn more about:

- What to Include in your Data Management Plan
- How to create a plan for Program Assessment/Evaluation
- Which college programs you could partner with to create a Broader Impacts or Outreach Plan
- What to include in a Postdoctoral Mentoring Plan
- What to include in an Ethics/Responsible Conduct of Research Plan
- Some general guidance for proposal preparation to NSF, NIH and more
OUR CASE STUDIES TODAY

• CFANS, Laura Olevitch, Collegiate Grants Coordinator
• Vet Med, Kersten Warren, Research Coordinator
• MN Population Center, Gina Rumore, Program Development Coordinator
College of Food, Agricultural and Natural Resource Sciences (CFANS)

- 13 departments
- 10 research and outreach centers
- 245 faculty, 795 staff
- 760 graduate students
- 551 NEW or Revised NEW proposals submitted in FY15
CFANS Departments and Centers

**Academic Departments**
- Animal Science
- Applied Economics
- Agricultural Education
- Agronomy and Plant Genetics
- Bioproducts & Biosystems Engineering
- Entomology
- Fisheries, Wildlife and Conservation Biology
- Food Science and Nutrition
- Forest Resource
- Horticultural Science
- Plant Biology
- Plant Pathology
- Soil, Water and Climate

**Research and Outreach Centers**
More....

- The Bell Museum of Natural History
- Minnesota Landscape Arboretum
- Dozens of collegiate and departmental centers

Close affiliations with...

- Minnesota Agricultural Experiment Station
- University of Minnesota Extension
### CFANS Sponsored Grants, 2014-15

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Award Funds*</th>
<th>%**</th>
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<tbody>
<tr>
<td>Associations—Soy, Corn, Pork, Fertilizer, Wheat</td>
<td>104</td>
<td>7,000,000</td>
<td>10%</td>
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<tr>
<td>Business &amp; Industry—Dupont, Pepsico, General Mills</td>
<td>75</td>
<td>6,500,000</td>
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<td>Foundations—McKnight, Bush</td>
<td>21</td>
<td>1,000,000</td>
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<td>Sub-awards (federal) from other Universities</td>
<td>64</td>
<td>5,000,000</td>
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<td>State of Minnesota—LCCMR, MDA, DNR</td>
<td>109</td>
<td>16,000,000</td>
<td>30%</td>
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<td>Fed/Govt Agencies—USDA, DOE, NSF, NIH, USDI</td>
<td>177</td>
<td>23,000,000</td>
<td>40%</td>
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<tr>
<td><strong>CFANS Total</strong></td>
<td>550</td>
<td><strong>$58,500,000</strong></td>
<td><strong>100%</strong></td>
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*rounded to nearest 1.5M  **rounded to nearest 10%
Grants/Research Development at the Collegiate Level

• CFANS Intranet – Research
• One-on-one meetings with all new faculty
• Funding announcements and notices
• Resource to departmental and finance cluster pre-award staff
• Facilitate connections with collaborators, resources, and funders
• Facilitate large multi-unit proposal submissions
All CFANS sponsored research grant proposals must be routed through the College and submitted through the Office of Sponsored Projects Administration (SPA), the University office authorized to submit research proposals and receive awards from external sources. The CFANS Dean’s Office serves as a final sign-off on Proposal Routing Forms (PRF), for sponsored fund grant proposal submissions, and is responsible for compliance by College faculty in all areas of sponsored projects management.

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olevitch@umn.edu
cfansqm@umn.edu
612-624-4212
One-on-one Meetings with New Faculty

Scheduled within 2 months of hire.

- Learn about their research interests
- Provide overview UMN/CFANS processes on how to apply for funding
- Sponsored Projects Administration (SPA)
- Call out pre-award staff
- Reference and demonstrate CFANS Intranet
- Review relevant internal funding sources (e.g., GIA, MnDRIVE, centers/institutes)
- Review CFANS and University-wide resources (e.g., UM Libraries; MSI; OTC; ROCs)
CFANS Intranet: New Investigator Set Up

College of Food, Agricultural and Natural Resource Sciences

New Investigator Set Up

In order to submit a research grant proposal, investigators must be set up in the University of Minnesota system.

1. Enter basic information into the EGMS expertise database. [http://egms.umn.edu/quickhelp/EGMS_Support/getting_started.html](http://egms.umn.edu/quickhelp/EGMS_Support/getting_started.html) (login with x500).
   If you have questions while getting set up in EGMS please call the helpline (612) 624-1600 and explain your situation. They will walk you through the process.

   The REPA is used to report external activities and business and financial interests in accordance with University policies that govern external activities and conflict of interests. SPA will not submit a proposal to NSF on your behalf until you've started a Report of External Activities (REPA).

3. Set up a Fastlane account (National Science Foundation proposals only) [http://www.ospa.umn.edu/electronictools/nsf_fastlane.html](http://www.ospa.umn.edu/electronictools/nsf_fastlane.html)
   In order to submit a proposal to the National Science Foundation, an individual UMN Fastlane account must be set up through the UMN Sponsored Projects Administration.

4. Obtain an eRA Commons ID. (National Institutes of Health proposals only) [http://www.ospa.umn.edu/electronictools/riverAPs.html](http://www.ospa.umn.edu/electronictools/riverAPs.html)
   In order to submit a proposal to the National Institutes of Health, an individual eRA Commons ID must be established through the UMN Sponsored Projects Administration.

5. Complete Responsible Conduct of Research Training
   Proposals may be submitted, but no awarded funds will be released by SPA until the RCR core curriculum has been completed.
<table>
<thead>
<tr>
<th>Type</th>
<th>Announcement</th>
<th>Agency</th>
<th>Due Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>funding announcement</td>
<td>Beginning Farmer Rancher Development Program (BFRP)</td>
<td>NEFA</td>
<td>January 21, 2016</td>
<td>Proposals due Jan 21. NEPA requests applications for the Beginning Farmer and Rancher Development Program (BFREP) for fiscal year (FY) 2016 to support the delivery of education, mentoring, and technical assistance programs to help beginning farmers and ranchers in the United States (U.S.) and its territories with entering, establishing, building and managing successful farm and ranch enterprises.</td>
</tr>
<tr>
<td>funding announcement</td>
<td>Outreach and Education, Technical Assistance, and Financial Education for PSA Programs, Functions, and Activities</td>
<td>USDA Farm Service Agency</td>
<td>January 22, 2016</td>
<td>Multiple due dates: Nov 20, Jan 21, Mar 18, and May 27. The U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) is offering $35 million in grants to non-profits and public institutions of higher education that develop proposals to improve farmer outreach and education on topics such as financial training, value-added production, recordkeeping, property inheritance and crop production practices. The initiative focuses on new or underserved farmers, returning military veterans, minorities, women, urban or locally-grown producers, and others. Awards between $20,900 and $500,000 per applicant will be available.</td>
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| funding announcement - Internal | Multicultural Research Award                                                  | UMN - Office for Equity and Diversity Institute for Diversity, Equity and Advocacy | January 22, 2016  | IKEA invites proposals from tenured and tenure-track faculty for research that addresses issues related to its mission "to
Weekly email: funding announcements and notices

CFANS - funding announcements and notices (week of 12/7/15)

Laura Olevitch <llevitch@umn.edu> 12/14/15 -

To: CFANS, cfans-faculty, cfans-postdocs, cfans_research

The following funding announcements and notices were posted to the CFANS list:

Organic Agriculture Research and Extension Initiative
Agency: USDA
Due Date: 2015-03-10
Notes: NIFA requests applications for the Organic Agriculture Research and Extension Initiative (OREI). OREI funds research, education, and extension programs that adopt organic production standards to grow and market high quality and social sciences, including economics.

National Institute of Food and Agriculture International Wheat Yield Partnership
Agency: NIFA
Due Date: 2015-03-01
Notes: LOI due March 1, Applications due May 3. NIFA in coordination with the International Wheat Yield Partnership is funding projects that generate new knowledge and technologies for increases in cereal breeding using new technologies and also discoveries that lead to significantly greater grain size, grain set and grain filling duration following embryo formation, in diverse environments, without compromising grain protein concentration in Triticaceae species.

Important according to our magic sauce.

NIFA, preaward group <cfans-preaward@umn.edu>, cfans-faculty@umn.edu, cfans-postdocs@umn.edu, cfans_research_announcements@umn.edu

Sun Grant Program - North Central Region (SGP-NCR)
Agency: NIFA
Due Date: 2015-02-01
Notes: Pre-proposals due Feb 1. Full proposals due Mar 30. SGP is a national network of land-grant universities working in collaboration with national laboratories and government agencies, partnering to build a biodiverse economy. SGP-NCR makes proposals that will further its mission of developing viable alternatives for broad-based energy sources and products while enhancing economic opportunities in rural areas. In addition, the proposal must show an example of displacement of foreign oil through the enhancement of the biodiverse economy.

Rashell Boling International Scholars Program (RIBISP)
Agency: Monsanto
Due Date: 2015-02-01
Notes: Supports student projects that develop advanced breeding techniques and fulfill the requirement of conducting at least one season of field work in a developing country, in order to experience being in the field. Projects must include experiential learning in both developed and developing countries. The program is administered by Texas AgLife Research, an agency of the Texas A&M University System.
<table>
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<tr>
<th>What’s working…What’s next</th>
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<tbody>
<tr>
<td><strong>Email</strong>&lt;br&gt;(who would have guessed?)</td>
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</table>

| Working | Needs Help | Most Often Requested | Next |
Pre-Award Beyond the Budget: Promoting Research Development at the Unit Level

Kersten Warren, College of Veterinary Medicine
RESEARCH COLLABORATIONS
Activities Facilitated by CVM’s Office of the Associate Dean for Research

- Scientific Research Seminars
- iCOMOS
- Internal Grant Programs
- Research Retreats with Other Units
- International Collaborations (Chiang Mai, USAID RESPOND, Turkey)

The Office of the Associate Dean for Research plays a critical role in facilitating research through innovative activities meant to generate research collaborations.
Scientific Research Seminar

2-3 times per month – scientific seminar with high quality speakers from within the University or from outside institutions

Use one slot per month for two CVM post-docs or research associates to gain experience presenting research

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Use one slot per month for two CVM post-docs or research associates to gain experience presenting research
THEMATIC - Organized around collegiate Signature Program themes or graduate program interests

EXPENSE – Jointly funded by Associate Dean of Research and 3 CVM Departments

FACULTY DRIVEN - CVM Research Committee faculty members invite collaborators or expert scientists of interest

Scientific Seminars
Outputs of Scientific Seminars

RECRUITING TOOL—invite faculty we would like to have join our research faculty

POSTDOCS—gain experience presenting research findings and receive feedback

COLLABORATIONS—CVM faculty make connections with other scientists
THE SCIENCE BEHIND ONE HEALTH

iCOMOS™

International Conference on One Medicine One Science
ICOMOS

2nd International Conference on One Medicine One Science
APRIL 24–27, 2016
UNIVERSITY OF MINNESOTA, MINNEAPOLIS, USA

The Science Behind One Health, at the interface of humans, animals and the environment.

ICOMOS is a global forum to (i) communicate the importance of science in solving pressing health issues at the interface of humans, animals and the environment; (ii) facilitate interdisciplinary, international collaborations embracing health, science and economics; and (iii) inform public policy development that is necessary for preserving human and animal health.

ICOMOS 2016 will feature keynote lectures and poster presentations in the following areas:

• Balancing Personalized Medicine and Public Health in a Changing Environment. How do you balance the new potential for individualized health care with public health programs serving communities and populations, especially in the context of environmental pollution and climate change? Here, we highlight scientific complexities of individual and population health in animals and humans as impacted by environment.

• Air Quality, Environmental Exposures, and Health. What is the science behind major air-related diseases and overall health, as well as the human and economic consequences of these diseases? ICOMOS examines the science and politics linking clean air and health.

• Water at the Interface of Health, Economics, and Environment. The fundamental need for water quality and quantity is increasingly difficult to fulfill. Water policy balances human, animal, and environmental health needs, but each are measured by different standards. Relevant knowledge is often inexact or disputed. We present the challenges to achieving desirable health and economic consequences in water management.

• Role of Science in Formulation of Local and Global Health Policy. Health policies that establish national and international social priorities are often influenced more by near-term economics and public emotion than by science. We will look at how science enlightens public policies for sustaining human, animal and environmental health.

Workshops

Four concurrent workshops will address solution and implementation opportunities:

• Tomorrow’s Health Science Workforce: Physician-Scientist and Team Science
• One Health One Policy: Managing Risk Enroute to Global Food Security
• Big Data: The Language and Future of One Medicine One Science
• Team Science Case Study: Canine and Human Epilepsy, a Model for Bidirectional Benefit
Internal Grants Program

Opportunity to write grants, develop and refine project hypothesis/aims, reach out to collaborators

Scientifically reviewed by faculty peers in CVM, CFANs, other AHC units or industry stakeholders—“free press” for our research

CVM Office of the Associate Dean for Research runs robust internal competitive grants program (approximately $750k/year) offering multiple faculty driven RFAs based on strategic plan for research and CVM Signature Programs

Applicants receive written summary of critiques and are often asked to revise applications before receiving funding

Generates preliminary data and progress/final reports that improve success of federal applications and allow investment to be leveraged
College of Veterinary Medicine Full Day Retreat with College of Pharmacy – April 24, 2013

Approximately 40-50 faculty from each college attended the full day retreat with each college presenting overview of expertise, infrastructure and research interests. Resulted in joint funding opportunity requiring collaboration between COP-CVM investigators with funds contributed by AHC and Research Deans in both colleges-4 $22,500 grants awarded.

Currently Planning CVM/CFANS/CBS Retreat

Currently faculty and administrators from several departments in CFANS and CBS are meeting to plan topics and structure of faculty retreat in aiming to build collaborations and awareness of research expertise. Developing a survey to distribute to all faculty to identify topics of interest and to solicit input for retreat format.
College of Veterinary Medicine/College of Pharmacy Retreat Agenda

RESEARCH COLLABORATIONS SYMPOSIUM
Wednesday April 24th, 2013, 9 am – 4 pm
Cargill Building, St. Paul Campus
UNIVERSITY OF MINNESOTA

9:00 am – 9:15 am  Introduction  Srinath Rao and Eam El-Faihaan

9:15 am – 9:30 am  What CVM has to Offer  CVM faculty will highlight expertise, infrastructure, and research interests.
- Inflammation – Bruce Walcheck
- Viral Infectious Diseases – Hinh Ly
- Oncology Models – Jame Modiano
- Bacterial Infectious Diseases – Yinduo Ji
- Neuroscience – Alvin Belz
Moderator: Michael Conzemius

10:15 am – 10:30 am  Break

10:30 am – 11:30 am  What CoP has to Offer  Pharmacy faculty will highlight expertise, infrastructure, and research interests.
- Pharmacogenomics – Jatinder Lamba
- Drug Discovery/Drug Development – Gunda Georg
- Drug Formulation/Drug Delivery – Raj Sururayarayar
- Pharmacometrics/Pharmacokinetics – Richard Brundage
- Pharmacy Practice/Health Policy/Health Economics/Health Informatics/Health System Reform – Stephen Schondelmeyer
Moderator: Catherine St. Hill

11:30 am – 12:15 pm  Lunch will be provided

12:15 pm – 12:30 pm  Current Collaborations  Representatives of current collaborations in CoP/CVM will discuss challenges and successes.
- Nec Patterson, James Cloyd, Ilo Leppik

12:30 pm – 1:30 pm  Roundtable Discussions Hosted by CVM Faculty  Pharmacy faculty will visit topic areas of interest
- Table #1: Inflammation – Bruce Walcheck/Kely Hall
- Table #2: Viral Infectious Diseases – Sri Sreevalar/Carol Cardona
- Table #3: Bacterial Infectious Diseases – Yinduo Ji
- Table #4: Neuroscience – Alvin Belz, Anesthesiology Faculty

1:30 pm – 2:00 pm  Report Back  A faculty member from each group will spend 5 minutes summarizing the group’s discussion.

2:00 pm – 2:15 pm  Break

2:15 pm – 3:15 pm  Roundtable Discussions Hosted by CoP Faculty  (confirmed attendees are listed)
- CVM faculty will visit topic areas of interest
- CoP will organize by 4 research themes:
  - Table #1: Pharmacogenomics: Jatinder Lamba, Vishal Lamba, Robert Straka
  - Table #2: Drug Discovery/Drug Development: Philip Portoghese, Elizabeth Amin, Barry Finzel, Michael Walters, Henry Wong, Peter Doss
  - Table #3: Drug Formulation/Drug Delivery: Calvin Sun, James Cloyd, Mamie Peterson, Bjorn Bauer
  - Table #4: Clinical Pharmacology, Pharmacokinetics, Pharmacometrics: William Elmoquist, Megan Underberg, Richard Brundage, L’Surell Johnson

3:15 pm – 3:45 pm  Report Back  A faculty member from each group will spend 5 minutes summarizing the group’s discussion.

3:45 pm – 4:00 pm  Closing Remarks
International Collaborations to Foster Research

Joint research exchange and grant program between CVM and Chiang Mai University

Issued a competitive RFA designed by leaders at both university to foster research in areas of joint expertise identified by collegiate leadership

Three projects selected for funding with each university contributing $30,000-Faculty at each University with opportunity to travel to conduct research

Leveraged OIE Twinning Project Funds to cover travel costs between Thailand and UMN

**Research Compliance/Administration is quite complicated**
USAID RESPOND – CVM Research Office played critical role in helping to prepare this proposal with multiple international collaborations by helping to identify and facilitate partnerships across the University (CEHD, Public Health, School of Nursing) - $14 million contract with subsequent multimillion dollar projects and spin off collaborations.

Tools of the Trade

Research Administrators can help faculty use available tools to find collaborators.
# Veterinary and Biomedical Sciences

**Summary**

<table>
<thead>
<tr>
<th>Research Area</th>
<th>Sources</th>
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<tbody>
<tr>
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<td>Sources</td>
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### Expert Fingerprint

- Swine
- Dogs
- Porcine respiratory and reproductive syndrome virus
- Horses
- Swine Diseases
- Cats

### Research Outputs

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### Non-co-authors

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<tr>
<th>Rank</th>
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<th>Department</th>
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<tr>
<td>1</td>
<td>Anne Slung</td>
<td>Medicine - Hematology, Oncology, Transplant</td>
</tr>
<tr>
<td>2</td>
<td>Quanuan Zhang</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3</td>
<td>Jean F. Regal</td>
<td>Biomedical sciences</td>
</tr>
<tr>
<td>4</td>
<td>Caroline L. George</td>
<td>Pediatrics - Pediatric Critical Care</td>
</tr>
<tr>
<td>5</td>
<td>Waseem Toura</td>
<td>Medicine - Hematology, Oncology, Transplant</td>
</tr>
</tbody>
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### Institutional Network

- University of California at San Diego, United States
- Johns Hopkins University, United States
- University of Minnesota, United States
- Indian Institute of Science, Bangalore, India
- University of California at Davis, United States
- University of Wisconsin at Madison, United States
- Scripps Research Institute, United States
- National Institutes of Health, United States
- National Institutes of Health, United States
- National Institutes of Health, United States
MPC Research Development

Gina Rumore

grumore@umn.edu

Minnesota Population Center
Minneapolis Population Center

- 96 faculty members and research scientists
- ~70 graduate student members
- 10 colleges and 26 departments
- We serve a broader audience of over 100,000 researchers worldwide
- Process about 25 proposals (including subawards to other institutions) each year
- ~$12 million in sponsored funds for FY 16
- Top funded research center on campus
Interdisciplinary Collaboration

- Seminar Series
- Inequality and Methods Workshop
- Work, Family, and Time Workshop
- Primary Research Area Focus Groups
Grant Proposal Development

- Comprehensive proposal development services
- Proposal Development Mentorship Grants
- Proposal Development Pilot Grants
- Research Scientist Development Program
- Research Collaboration Awards
- Monitoring and Supporting Research Compliance
Professional Development

- Writing Support
  - Writing Hunker
  - Paper Surgery
- Research Presentation Support
  - Workshops
  - Practice talks and poster consultations
Supporting (and Mentoring) Research Compliance

- NIH Public Access Policy, My NCBI, and PubMed Central
- NIH new-format biosketch support
- NSF Public Access compliance
- NSF Data Management Plans
Development Core Services

• Building interdisciplinary collaborations
• Grant proposal and research development
• Professional development
Some University-Wide Research Development Resources

• Libraries (data management, funding databases)
• Statistical Consulting Center (data analysis and research design)
• Evaluation Studies Institute (program evaluation services)
• Office of Public Engagement (broader impacts)
• OVPR Research Engagement (collaborative connections)

Office of Technology and Commercialization (business partnerships)

GPS Alliance (international activities)

U Spatial (data mapping)

Super Computing Institute (big data)

Zooniverse@UMN (citizen science platform)

Researchdev@umn.edu