Office of Vice-Chancellor for Research & Innovation

Introduction, Mission, and Initiatives

Export Control

Kamal H. Khayat, interim Vice Chancellor for Research and Innovation

November 4, 2021
### Office of the Vice Chancellor of Research & Innovation

**Dr. Kamal H. Khayat**  
Interim Vice Chancellor for Research and Innovation

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<th>Faculty Fellows</th>
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<td>Melissa Chambers Grants/Contracts Admin</td>
<td>Becky Black Grants/Contracts Admin</td>
<td>Summer Young Lead Proposal Developer</td>
<td>Cathie Eikermann Sr. Compliance Manager</td>
<td>John Woodson Interim Director of Tech Transfer</td>
<td>Dr. Xiaoming He Professor of Mathematics &amp; Statistics</td>
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<td>Abigayle Sherman Executive Assistant</td>
<td>Cynthia Stevenson Grants/Contracts Admin</td>
<td>Mundy Kell Grants/Contracts Admin</td>
<td>Maria Shaub Proposal Developer</td>
<td>Kamal Khayat COI Committee</td>
<td>Deena Aaron Administrative Assistant</td>
<td>Dr. Yue-wern Huang Professor of Biological Sciences</td>
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<td>Sara Lewis Fiscal Manager</td>
<td>Debra Wielms Grants/Contracts Admin</td>
<td>Ramona Nicewanner Business Operations Associate I</td>
<td>Yue-wern Huang Biosafety Committee IACUC Committee</td>
<td></td>
<td>Casey L. Gideon-Saladin Office Support Assistant</td>
<td>Dr. Nancy Stone Professor of Psychological Science</td>
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<tr>
<td></td>
<td>Jessica Hays Grants/Contracts Admin</td>
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<td>Vacant</td>
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<td></td>
<td>Ayako Ohrenberger Business Support Specialist II</td>
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Research Centers

University Research Centers

• Center for Biomedical Research (CBR)
• Center for High Performance Computing (HPC)
• Center for Infrastructure Engineering Studies (CIES)
• Center for Intelligent Infrastructure (CII)
• Center for Research in Energy and Environment (CREE)
• Center for Science, Technology, and Society (CSTS)
• Energetic Materials, Rock Characterization, and Geomechanics Center (EMERGe)
• Intelligent Systems Center (ISC)
• Materials Research Center (MRC)

Research Consortia

• Center for Aerospace and Manufacturing Technologies (CAMT)
• Kent D. Peaslee Steel Manufacturing Research Center
• Microgrid
• Missouri Center for Transportation Innovation (MCTI)
• Missouri Consortium for Construction Innovation (Mo-CCI)
• Electromagnetic Compatibility I/UCRC
• Preformed Particle Gel (PPG) for Conformance Control

Other Centers

• Missouri Center for Transportation Innovation (MCTI)
• S&T/Army Research and Development Institute (SARDI)
Mission

OVCR&I - Foster innovation, promote scholarship, creative works, technology transfer and economic development, provide access to specialized equipment, and promote education and training of students to conduct cutting-edge interdisciplinary research.

OSP - Enhance and facilitate research and external funding by providing support services, in a timely and professional manner, to faculty, staff, students and research investors involved with sponsored program activities.
Gina Webb
Assistant Director of OSP
573-341-4130 | gswgn5@mst.edu
202 Centennial Hall, 300 W. 12th St.

Sara Lewis
Fiscal Manager
573-341-7873 | lewissar@mst.edu

Abigayle Sherman
Executive Assistant
573-341-4134 | abigayle@mst.edu
202 Centennial Hall, 300 W. 12th St.

Primary Duties
Office of Sponsored Programs

Melissa Chambers
Grants & Contracts Administrator
573-341-7553 | melissac@mst.edu
202 Centennial Hall, 300 W. 12th St.

Debra Wielms
Grants & Contracts Administrator
573-341-7120 | wielmsd@mst.edu
202 Centennial Hall, 300 W. 12th St.

Ayako Ohrenberger
Business Support Specialist II
573-341-7764 | ohrenberger@mst.edu
202 Centennial Hall, 300 W. 12th St.

Cynthia Stevenson
Grants & Contracts Administrator
573-341-7272 | stevensonc@mst.edu
202 Centennial Hall, 300 W. 12th St.

Jessica Hays
Grants & Contracts Administrator
573-341-4135 | jnhkk7@mst.edu
202 Centennial Hall, 300 W. 12th St.
Pre-Award

- RFP review
- Budget development & review
- Proposal package review
- Cost share review & approval
- Submission of proposals
- Contract negotiation
- Award set-up
- Subcontract processing
# Proposal Compilation, Vetting, and Submission Milestones

[Link](https://sponsoredprograms.mst.edu/media/research/sponsoredprograms/documents/policies/Pre-Award%20Timeline.pdf#190924013239)

<table>
<thead>
<tr>
<th>As Soon as Possible</th>
<th>Principal Investigator Provides to OSP</th>
</tr>
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<tbody>
<tr>
<td>□ Link to solicitation/RFP/FOA</td>
<td></td>
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<tr>
<td>□ Notification of whether proposal involves:</td>
<td></td>
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<tr>
<td>o Cost Share</td>
<td></td>
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<tr>
<td>o Subawards</td>
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</tr>
<tr>
<td>o Task Budget Breakouts</td>
<td></td>
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<tr>
<td>o Human Subjects&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>o Biosafety Contaminants&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>o Animals</td>
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<tr>
<td>o Export Controls</td>
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<table>
<thead>
<tr>
<th>10 full business days prior to sponsor deadline</th>
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<tbody>
<tr>
<td>□ Cost Share Budget</td>
<td></td>
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<tr>
<td>□ Cost Share Commitment&lt;sup&gt;3&lt;/sup&gt; Form</td>
<td></td>
</tr>
<tr>
<td>□ Task Budget Breakout (if applicable)</td>
<td></td>
</tr>
<tr>
<td>□ Subaward Task Budget Breakout (if applicable)</td>
<td></td>
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</tbody>
</table>

**IP review**
**Office of general counsel review**
| 5 full business days prior to sponsor deadline | □ Budget  
□ Budget Justification  
□ Statement of Work  
□ Investigator Form<sup>iv</sup> (NSF, PHS, SBIR/STTR only)  
□ Subaward documents (if applicable):  
  ○ Letter of Commitment signed by Authorized Signature Authority  
  ○ Budget (including task breakouts, if applicable)  
  ○ Budget Justification  
  ○ Statement of Work<sup>v</sup> |
| 3 full business days prior to sponsor deadline | - Project Summary/Abstract  
- Project Description/Specific Aims/Research Strategy (draft)\textsuperscript{vi}  
- Current & Pending Support  
- Biographical Sketch(es)  
- Bibliography & References Cited\textsuperscript{vi}  
- Facilities & Other Resources  
- Data Management Plan  
- Resource Sharing Plan(s)  
- Any additional forms required by the FOA |
| 8am the business day prior to sponsor deadline\textsuperscript{vii} | - Finalized Project Narrative Document  
- Submission of IRB/IACUC Applications (if applicable) |
Post-Award and Close-Out

Office of Sponsored Programs

Becky Black
Grants & Contracts Administrator
573-341-7206 | blackbm@mst.edu
202 Centennial Hall, 300 W. 12th St.
Awards

Mendy Kell
Grants & Contracts Administrator
573-341-7140 | mkell@mst.edu
202 Centennial Hall, 300 W. 12th St.
Awards

Ramona Nicewaner
Grants & Contracts Administrator
573-341-6855 | rdbfy6@mst.edu
202 Centennial Hall, 300 W. 12th St.
Post Award

- Contract administration
- Creates MoCode
- Sponsor billing
- Budget revisions
- No-cost time extensions
- Cost transfers
- Cost share monitoring
- Liaison between academic departments & sponsors
- Award close-out
Proposal Development Support

Proposal development support [https://sponsoredprograms.mst.edu/process/proposal-development/](https://sponsoredprograms.mst.edu/process/proposal-development/)

- Complex proposal development assistance
- Solicitation analysis activities
- Project management activities
- Early career faculty proposal development assistance
- Limited submissions

Training/Workshops

- Working with industry, CAREER and other early career awards (AFOSR, DAPA, ARL, DoE, etc.), DoE, NIH, DoD, “Beyond NSF,” foundations, etc.
- PIVOT
- CAFÉ
PROPOSAL DEVELOPMENT

Summer Young
Lead Proposal Developer
973-341-7121 | youngsn@mst.edu
202 Centennial Hall, 300 W. 12th St.
Proposal Development Assistance

Maria Shaub
Proposal Developer
573-341-7122 | shauba@mst.edu
202 Centennial Hall, 300 W. 12th St.
Proposal Development Assistance
Compliance

Implement policies and procedures that comply with Federal, agency, and institutional rules and regulations that impact research.

Compliance areas include but are not limited to regulations affecting human subject research, animal care, conflict of interest, and export controls.

Compliance

- Institutional Review Board (IRB), Institutional Animal Care & Use Committee (IACUC), Institutional Biosafety Committee (IBC), Conflict of Interest (COI)

Export Controls

- International Traffic in Arms Regulation (ITAR), Export Administration Regulations (EAR)
Technology Transfer & Economic Development

Technology Transfer Office
• Patent Filing
• Invention Disclosure
• TechFinder – Search the University of Missouri System Techfinder for all the latest and greatest of technology
• MOSourceLink – an abundance of resources for current and aspiring entrepreneurs of all types and at all stages, from inception to exit

Business Support Office
• Missouri S&T Small Business Development Center (SBDC) provides business counseling and training to aspiring entrepreneurs and small businesses

https://ecodevo.mst.edu/technology-licensing/

John Woodson
Interim Director
573-341-7544 | jwoodson@mst.edu
The Technology Transfer Office (TTO) is a unit of the Office of Technology Transfer and Economic Development. Here we administer and coordinate the technology transfer process at Missouri S&T.

How do I get a patent?

Who do I contact about my invention?

I’m a university professor or student and I need help with my patent or invention
Faculty Fellows to VCR&I

Dr. Nancy J. Stone
Faculty Fellow to Vice Chancellor of Research and Graduate Studies, Professor of Psychological Science
573-341-4015 | nstone@mst.edu
202 Centennial Hall, 300 W. 12th St.

Primary Duties

Responsibilities:

- Coordinate annual NSF GRFP workshop
- Facilitate, develop, and provide workshops for faculty
- Assist in the development of policies and procedures
- Identify and address faculty support needs

Dr. Xiaoming He
Faculty Fellow to Vice Chancellor of Research and Graduate Studies, Professor of Mathematics and Statistics
573-341-6208 | hex@mst.edu
202 Centennial Hall, 300 W. 12th St.

Primary Duties

Responsibilities:

- University Research Center evaluations
- Promoting interdisciplinary research collaborations
Dr. Yue-Wern Huang
Faculty Fellow to Vice Chancellor of Research and Graduate Studies, Professor of Toxicology and Nanobiotechnology
573-341-6589 | huangy@mst.edu
202 Centennial Hall, 300 W. 12th St.

Primary Duties

Responsibilities:

- Facilitate international collaboration in graduate education and research
- Promote interdisciplinary and cross-disciplinary research collaborations and programs at Missouri S&T and beyond. One emphasis area is to create synergy in smart health, biomedical applications, and engineering
- Assist strategic planning and implementation of research directions and policies
- Enforce research compliance in the areas of biosafety and animal use
Our North Star

What it will take to become a top-tier research university

<table>
<thead>
<tr>
<th>Research Activity</th>
<th>U.S. News Ranking</th>
<th>Enrollment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>Desired</td>
<td></td>
</tr>
<tr>
<td>Carnegie Research 2 (high activity)</td>
<td>Desired: 100</td>
<td>Current state: 5,706 Undergrad 1,552 Graduate</td>
</tr>
<tr>
<td>Carnegie Research 1 (very high activity)</td>
<td>Current: 179</td>
<td>Desired state: 8,000 Undergrad 4,000 Graduate</td>
</tr>
</tbody>
</table>

* End of third week
Office of Sponsored Programs

> Summary of FY21 activities

▶ Number of proposals submitted: 614
▶ Total of proposals submitted: $257.8M

▶ Number of funded proposals: 350
▶ Proposal awards: $79.7M
  > $43.5M proposals + $36.2M others

▶ Net grant and contract expenditures: $50.5M
▶ Total expenditures: $60.9M
Selected Goals for FY22

Fill key academic leadership positions in support of S&T’s research enterprise

- Support key searches
  - Kummer Institute Research Center Directors
  - Director of Technology Transfer, Business Innovation, and Economic Development
New Initiatives for FY22

Disseminate funding opportunities in support of research and scholarly opportunities to faculty from all disciplines represented at Missouri S&T

- **Bi-weekly analysis** of PIVOT funding opportunities (all Federal and Foundation Opportunities, including NIH available for next 3 months)

- **Monthly analysis** of selected Federal grants and fellowships under 4 categories + select non-Federal funding opportunities > $500K (Foundations, Associations, etc.)

- **Award Capture Team:** VCRI, Assoc. Deans for Research, Faculty Fellows
RECENT FUNDING ANNOUNCEMENTS

Missouri S&T gathers and compiles funding opportunities on a monthly basis. This is a list of opportunities identified through PIVOT and grants.gov.

- We cannot promise that the list is representative of all the research interests of S&T faculty, or that some opportunities will be missed.
- This is intended to be a manageable list of recent research opportunities for review, hopefully saving researchers' time.

List of recent funding announcements

The following file contains current Federal funding opportunities, excluding HSS:

SELECTED FUNDING OPPORTUNITIES (EXCLUDING HSS)

The following files are funding opportunities that are available in the next 3 months, as of November 1, 2021:

ALL FEDERAL FUNDING OPPORTUNITIES AVAILABLE IN NEXT 3 MONTHS

SELECTED PIVOT R-P FUNDING OPPORTUNITIES AVAILABLE IN NEXT 3 MONTHS
<table>
<thead>
<tr>
<th>OPPORTUNITY NUMBER</th>
<th>OPPORTUNITY TITLE</th>
<th>AGENCY CODE</th>
<th>AGENCY NAME</th>
<th>CLOSE DATE</th>
<th>AWARD CEILING/FLOOR</th>
<th>EXPECTED NUMBER OF AWARDS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
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<tr>
<td>18-574</td>
<td>NSF Astronomy and Astrophysics Postdoctoral Fellowships</td>
<td>NSF</td>
<td>National Science Foundation</td>
<td>10/15/2021</td>
<td>Award Floor:$100,000</td>
<td></td>
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</tr>
<tr>
<td>18-584</td>
<td>SBE Postdoctoral Research Fellowships</td>
<td>NSF</td>
<td>National Science Foundation</td>
<td>11/1/2021</td>
<td>Award Ceiling:$65,000</td>
<td></td>
<td>The Directorate for Social, Behavioral, and Economic Sciences funds research in any area of astronomy or astrophysics. Awarding agencies are responsible for the development and implementation of priorities for support in this area.</td>
</tr>
<tr>
<td>21-005</td>
<td>SBE Postdoctoral Fellowships</td>
<td>NSF</td>
<td>National Science Foundation</td>
<td>11/30/2021</td>
<td>Award Floor:$90,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-588</td>
<td>PFE Research Initiation in Engineering Formation</td>
<td>NSF</td>
<td>National Science Foundation</td>
<td>11/30/2021</td>
<td>Award Floor:$200,000</td>
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KI Ignition Grants Initiative

Objective: To develop large proposals, diversify ext. funding (10/13)

- Multidisciplinary, multi university efforts
- STEM fields and non-STEM fields
- NIH, Phelps-Health, LWI, WashU, SLU …
- Application deadline: Nov. 30th, 2021
- Second cycle for IGI grants can take place in Spring 2022
**OVCRI ASSISTANCE FOR EARLY CAREER FACULTY**

Nov 12, 2021  
3:00-5:00 PM  
221 CompSci

Join Zoom Meeting  
https://umsystem.zoom.us/j/97641002657?pwd=ZmRUODhCK2RkbWtvemE1aDk4T1ppdz09

Meeting ID: 976 4100 2657  
Passcode: 096444

<table>
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<tr>
<th>Agency/Program/Links</th>
<th>Deadline</th>
<th>Program Synopsis</th>
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<tr>
<td>NSF CAREER Faculty Early Career Development Program (CAREER)</td>
<td>7/25/2022</td>
<td>Support for early career faculty who have the potential to serve as academic role models in research and education</td>
</tr>
<tr>
<td>DOD AFOSR Young Investigator Program (YIP) - Research Areas - AFOSR - APAN Community</td>
<td>Early to Mid-July each year (expected)</td>
<td>Support for those with exceptional ability and promise for conducting research</td>
</tr>
<tr>
<td>DOD ONR Young Investigator Program - Office of Naval Research (navy.mil)</td>
<td>Aug-Oct each year (expected)</td>
<td>Support for outstanding faculty members to attract them to the Navy's science and technology program - to support their research and to encourage their teaching and research careers</td>
</tr>
<tr>
<td>DOD DARPA Young Faculty Award (darpa.mil)</td>
<td>1/25/2022</td>
<td>To develop research ideas in the context of national security needs by identifying and engaging rising stars in junior research positions</td>
</tr>
<tr>
<td>DOD ARO arl-baa-ARO-BAA-Amendment-6.pdf (army.mil)</td>
<td>Applications accepted year-round</td>
<td>To attract outstanding young university faculty members to pursue fundamental research in areas relevant to the Army</td>
</tr>
<tr>
<td>DOD ARI View Opportunity</td>
<td>GRANTS.GOV</td>
<td>8/4/2022</td>
</tr>
</tbody>
</table>
Congratulations to our recent NSF CAREER Awardees!

Dr. Chenglin “Bob” Wu (civil engineering)

Dr. Yun Seong Song (mechanical and aerospace engineering)

Dr. Jonathan Obrist-Farner (left) and Dr. Marek Locmelis (geosciences and geology and petroleum engineering)
OVCRI Events

- Early Career Orientation Workshop
  - Friday, November 12 at 3 pm

- OVCRI seminar
  - Friday, December 3 at 3 pm
    - TTED & Proposal Development Team

- Scientific exchange and outreach
  - URCs
  - Research constellations
Missouri University of Science & Technology

Export Control

Cathie Eikermann
Sr. Compliance Manager
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202E Centennial Hall, 300 W. 12th St.
What is Export Control

- U.S. export controls exist to protect the national security and foreign policy interests of this country. Export Controls govern the shipment, transmission, or transfer of controlled items, software, technology, or services out of the U.S. Perhaps of even more consequence to the university, is that the government also restricts the release of certain information to foreign nationals here is the U.S. (Deemed Export).

- Non-compliance with export controls can result in severe monetary and criminal penalties against both an individual as well as the university, and can result in the loss of research contracts, governmental funding, and the ability to export items.
Export Control Overview

- EAR regulates goods and technology on the Commodity Control List (CCL).

- CCL categories include: nuclear, electronics, chemicals, microorganisms, toxins, computers, lasers, sensors, navigation, avionics, aerospace, propulsion systems and other miscellaneous items.

- ITAR regulates defense articles, defense services and technical data listed on the U.S. Munitions List (UMSL).

- Some USML categories are specific, such as spacecraft systems (which includes GPS with certain characteristics), but in general the UMSL lacks the specificity of the CCL.

- Dual-use items are commodities, software, or technology that have both commercial and military or proliferation applications.
Export Control Overview

- Export Controls of items apply to transfers out of, as well as some transfers within the U.S.

- Export Controls apply to U.S. citizens, anywhere in the world and to anyone regardless of citizenship in the U.S.

- Any activity with Iran, Iraq, Libya, Pakistan, Soviet Union, China, India, Sudan, Cuba, Syria, North Korea, and the Crimea Region of the Ukraine (Embargoed Countries, Tier III, Tier IV) must be approved by the Sr. Compliance Manager/Export Control.
Governmental Concerns of Foreign Influence

- The U.S. welcomes international students, scholars, and researchers in the pursuit of intellectual collaboration and business advancement. It is therefore critical for U.S. businesses, universities, and granting institutions to be aware of potential financial risks and past illegal conduct that has been associated with foreign-government-sponsored talent recruitment programs.

- Though various countries use talent recruitment programs, China is by far the most prolific sponsor of such programs through what it calls talent plans.

- China’s talent recruitment program is an effort to recruit individuals in science and technology fields, regardless of citizenship or national origin or employment status.
Foreign Influence

- Notable areas that have benefitted from Chinese Government sponsored talent recruitment efforts are military technologies such as hypersonics, missile defense systems, acoustically advanced submarines, nuclear energy, wind tunnel design, telecommunications, and advanced lasers.

- Many recruits are from prominent U.S. national laboratories, where the U.S. government conducts both basic and applied research, which is often a precursor to sensitive military projects or transformational scientific breakthroughs.
Questions?

- Any concerns or questions please contact me at:
- 573-341-4124
- caeqmb@mst.edu
- khayatk@mst.edu