A Message from the VCR:

Colleagues,

Welcome to a new year and a new semester. While many of you are working on pre-proposals for the UM System’s Investment in Research and Creative Works (due on or before January 30), let’s not forget that there are more funding opportunities for our faculty.

Here are a few of the workshops and information meetings held by Federal agencies in 2019. I encourage you very strongly to consider attending (remember that my office will cover 2/3 of your travel costs: http://sponsoredprograms.mst.edu/resources/policies/):

AFOSR has already announced its 2019 workshops and reviews. You can find the list here: https://community.apan.org/wg/afosr/w/researchareas/24083/workshops-and-reviews---2019/

ARL has yet to announce its 2019 open campuses (one of them will probably be in Chicago). Please visit https://www.arl.army.mil/opencampus/ for a list of ARL Centers and also for announcements regarding the open campuses.

DARPA has scheduled some 2019 events, including a proposers’ day for “Materials Architectures and Characterization for Hypersonics” and an AI Colloquium. Please visit https://www.darpa.mil/events for details.

A reminder that NIH is organizing a Regional Seminar on May 15-17, 2019, when you will have ”Unique opportunity to hear the latest NIH grants process and polices directly from over 65 NIH & HHS Program, Grants, Review and Policy presenters...all in a central location. In addition, you have the option to meet with over 35 additional experts representing NIH Institutes and Centers for 15 minute chats. That’s over 100 experts available to choose from!” https://nexus.od.nih.gov/all/2018/10/31/spring-into-action-and-register-for-the-2019-nih-regional-seminar-in-baltimore-today/

In other news, I was happy to see that some of our graduate students have already taken advantage of the new program to support their travel to present at conferences: http://grad.mst.edu/currentstudents/travelfund/

I hope that our faculty will also avail themselves of the new Scholarly Outreach program that provides partial support for making presentations at Universities: http://sponsoredprograms.mst.edu/media/research/sponsoredprograms/documents/forms/Scholarly%20Outreach%20Program.pdf

Finally, here is a small piece of information regarding our proposal success: Below is the success rate in the past 4 fiscal years (FY14-17) for our proposals to agencies where we have received $2M or more. Caveats: some of the grants awarded were not competitive; an assumption was made that proposals submitted in one FY were awarded in the following FY; the success is in terms of total dollars, not proposal
numbers. I realize these are not always correct, but I hope this data will give you some more information about our success with different agencies.

Dr. Costas Tsatsoulis

<table>
<thead>
<tr>
<th></th>
<th>FY15-18 Total Awards (based on FY14-17 proposals)</th>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOD</td>
<td>$10,854,274</td>
<td>18.2%</td>
</tr>
<tr>
<td>US DOT</td>
<td>$15,043,844</td>
<td>71.8%</td>
</tr>
<tr>
<td>NASA</td>
<td>$6,388,054</td>
<td>33.3%</td>
</tr>
<tr>
<td>NSF</td>
<td>$31,055,392</td>
<td>11.3%</td>
</tr>
<tr>
<td>DOE</td>
<td>$18,571,199</td>
<td>23.4%</td>
</tr>
<tr>
<td>DOEduc</td>
<td>$9,765,836</td>
<td>35.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$104,857,695</td>
<td>18.2%</td>
</tr>
</tbody>
</table>

**On Working with DARPA**

Interested in working on cutting-edge national security research with DARPA? Check out Fedscoop’s article on the topic, featuring advice from DARPA’s own senior adviser for commercial strategy, David Henshall: [https://www.fedscoop.com/how-to-work-with-darpa/](https://www.fedscoop.com/how-to-work-with-darpa/)

**Pivot Changes Web Address**

On March 1, Pivot will be changing its web address from pivot.cos.com to pivot.proquest.com. The new “.proquest.com” address is already fully operational. **Addresses ending in “.cos.com” will not automatically redirect to the new address.** Be sure to change any saved links or bookmarks on Pivot by changing the “.cos” extension to “.proquest”.

**Office of the VCR Hires New Compliance Manager**

Karen Towns recently joined the Office of the Vice Chancellor of Research as the new Compliance Manager. Raised in Hawaii, Karen received two Bachelor of Arts degrees in English and Psychology from the University of Hawai’i and subsequently graduated with honors from the University of North Carolina School of Law. Karen hopes that her legal enforcement experience as an Associate Chief Counsel for the United States Food and Drug Administration will serve her well in her duties as the Compliance Manager for the Office of the Vice Chancellor of Research.
PI: Neil Anderson  
**Department:** Geosciences & Geological & Petroleum Engineering  
**Proposal Title:** Geophysical Imaging of a sinkhole in Springfield MO  
**Sponsor:** Geoengineers, Inc.  
**Award:** $2,500

PI: S. Balakrishnan  
**Department:** Mechanical & Aerospace Engineering  
**Proposal Title:** Mission Space Grant Consortium  
**Sponsor:** NASA  
**Award:** $246,010

PI: Rui Bo  
**Department:** Electrical & Computer Engineering  
**Proposal Title:** Agent-based Anti-gaming Platform for Wholesale Electricity Market Monitoring and Rule Design Using Big Data Analytics and Computational Intelligence  
**Sponsor:** Department of the Interior, DARPA  
**Award:** $192,411

PI: Emily Brickler  
**Department:** Student Affairs  
**Proposal Title:** Leach Theatre Presenting and Educating Series  
**Sponsor:** NEA Foundation  
**Award:** $10,000

PI: Douglas Bristow  
**Department:** Mechanical & Aerospace Engineering  
**Proposal Title:** CAMT: Boeing Full Membership  
**Sponsor:** Boeing Company  
**Award:** $50,000

PI: Douglas Bristow  
**Department:** Mechanical & Aerospace Engineering  
**Proposal Title:** CAMT: LMI Aerospace Inc. Membership  
**Sponsor:** LMI Aerospace Inc  
**Award:** $50,000

PI: Douglas Bristow  
**Department:** Mechanical & Aerospace Engineering  
**Proposal Title:** CAMT: Bodine Aluminum Inc. Membership  
**Sponsor:** Bodine Aluminum Inc.  
**Award:** $50,000

PI: Douglas Bristow  
**Department:** Mechanical & Aerospace Engineering  
**Proposal Title:** CAMT: DMG MORI Advanced Solutions Membership  
**Sponsor:** DMG Advanced Solutions, Inc.  
**Award:** $15,000

PI: Richard Brow  
**Department:** Materials Science & Systems Engineering  
**Proposal Title:** Corning Fellowship - Paul Porter  
**Sponsor:** Corning, Inc.  
**Award:** $50,000
Recent Awards
October 2018

**PI: Joel Burken**
Department: Civil, Architectural, & Environmental Engineering
Proposal Title: Collaborative Data Assessment & Phytoforensic Analysis for Organic Leachate Pollutants
Sponsor: US Forest Service
Award: $240,000

**PI: K. Chandreshekhara**
Department: Mechanical & Aerospace Engineering
Proposal Title: Thin-Ply Composite Technology and Application
Sponsor: Technical Data Analysis, Inc
Award: $37,500

**PI: K. Chandreshekhara**
Department: Mechanical & Aerospace Engineering
Proposal Title: Investigation of line-speed and product performance of pultruded soy-based polyurethane composites
Sponsor: Smith Bucklin and Associates
Award: $75,000

**PI: Genda Chen**
Department: Civil, Architectural, & Environmental Engineering
Proposal Title: Magnet-assisted Fiber Optic Sensing for Internal and External Corrosion-induced Mass Losses of Metal Pipelines under Operation Conditions
Sponsor: Department of Transportation
Award: $299,988

**PI: Jun Fan**
Department: Electrical & Computer Engineering
Proposal Title: CEMC Membership Agreement for Boeing
Sponsor: Boeing Company
Award: $70,000

**PI: Jie Huang**
Department: Electrical & Computer Engineering
Proposal Title: Probing Challenges in Pressure with Sub-pascal Resolution Using an Optical Fabry-Perot Interferometer
Sponsor: Institute of Electrical and Electronics Engineering
Award: $15,000

**PI: Kamal Khayat**
Department: Civil, Architectural, & Environmental Engineering
Proposal Title: Performance of Synthetic Fiber-Reinforced Concrete with Adapted Rheology
Sponsor: GCP Applied Technologies
Award: $75,000

**PI: Chang-Soo Kim**
Department: Electrical & Computer Engineering
Proposal Title: Smart sensor bandage for ulcer monitoring
Sponsor: Stoecker & Associates, Inc.
Award: $120,950
<table>
<thead>
<tr>
<th>PI:</th>
<th>Robert Landers</th>
<th>Department: Mechanical &amp; Aerospace Engineering</th>
<th>Proposal Title: IPA Assignment for Dr. Robert Landers to NSF CMMI</th>
<th>Sponsor: NSF</th>
<th>Award: $5,825</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI:</td>
<td>Johnny Lewis</td>
<td>Department: RPDC Misc. Instruction</td>
<td>Proposal Title: Leadership Specialist</td>
<td>Sponsor: MO Dept. of Education</td>
<td>Award: $22,510</td>
</tr>
<tr>
<td>PI:</td>
<td>Vadym Mochalin</td>
<td>Department: Chemistry</td>
<td>Proposal Title: Characterization, purification, Chemical Modification and Development of Nanodiamond Particles (ND) for ND-Polymer Composites</td>
<td>Sponsor: Daicel Corp</td>
<td>Award: $210,120</td>
</tr>
<tr>
<td>PI:</td>
<td>David Pommerenke</td>
<td>Department: Electrical &amp; Computer Engineering</td>
<td>Proposal Title: CEMC Membership Agreement for Applied 2-ESD</td>
<td>Sponsor: Apple Computer, Inc.</td>
<td>Award: $60,000</td>
</tr>
<tr>
<td>PI:</td>
<td>Honglan Shi</td>
<td>Department: Chemistry</td>
<td>Proposal Title: Single Particle ICP-MS Methods for Nanoparticles Fate in Biological Samples: Methods Transformation and Optimization with a New Model of ICP-MS Instrument, Phase I</td>
<td>Sponsor: Pegasus</td>
<td>Award: $11,250</td>
</tr>
<tr>
<td>PI:</td>
<td>Honglan Shi</td>
<td>Department: Chemistry</td>
<td>Proposal Title: Method Development/ Optimization to Enhance the Potable GC applications</td>
<td>Sponsor: Nanova Environmental, Inc.</td>
<td>Award: $33,761</td>
</tr>
<tr>
<td>PI:</td>
<td>Honglan Shi</td>
<td>Department: Chemistry</td>
<td>Proposal Title: Green Antibiotic Testing and Validation</td>
<td>Sponsor: Invogen, Inc.</td>
<td>Award: $36,571</td>
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<tr>
<td>PI:</td>
<td>Jeanne Stanley</td>
<td>Department: Arts, Languages, &amp; Philosophy</td>
<td>Proposal Title: Creating a platform for understanding between cultures via Anon(ymous)</td>
<td>Sponsor: Missouri Humanities Council</td>
<td>Award: $2,500</td>
</tr>
</tbody>
</table>
Recent Awards

October 2018

**PI:** Risheng Wang  
**Department:** Chemistry  
**Proposal Title:** New Material Characterization by SPME-GC-MS and OEA  
**Sponsor:** Brewer Science Corporation  
**Award:** $3,513

**PI:** Jeremy Watts  
**Department:** Materials Science & Systems Engineering  
**Proposal Title:** Improving the Fracture Toughness of Friction Stir Welding Tools  
**Sponsor:** Office of Naval Research  
**Award:** $67,500

**PI:** Philip Whitefield  
**Department:** Chemistry  
**Proposal Title:** Preparation and Production of an nvPM eLMS course  
**Sponsor:** Booz Allen Hamilton  
**Award:** $88,000

**PI:** Reza Zoughi  
**Department:** Electrical & Computer Engineering  
**Proposal Title:** NSTRF For Katelyn Brinker: 17-17 Phase B-0023: Passively-Coded Embedded Wideband Microwave Sensors--Year 2 Fellowship Funds  
**Sponsor:** NASA Goddard Space Flight Center  
**Award:** $39,813

**PI:** Reza Zoughi  
**Department:** Electrical & Computer Engineering  
**Proposal Title:** Accurate & Field Deployable Microwave Nondestructive Evaluation of Ablatives  
**Sponsor:** Texas Research Institute at Austin  
**Award:** $44,000

November 2018

**PI:** Laura Bartlett  
**Department:** Materials Science & Engineering  
**Proposal Title:** Understanding the effect of steel composition on mechanical properties of hot rolled high manganese and aluminum steels for military armor  
**Sponsor:** American Lightweight Materials Manufacturing Innovation Institute  
**Award:** $79,633

**PI:** Aleksandr Chernatynskiy  
**Department:** Physics  
**Proposal Title:** Irradiation Behavior of Piezoelectric Materials for Nuclear Research Centers  
**Sponsor:** Ohio State University  
**Award:** $89,004

**PI:** Cihan Dagli  
**Department:** Engineering Management and Systems Engineering  
**Proposal Title:** Senior Design Project: 2018 MARSOC TE 3 Portable Translator  
**Sponsor:** Stevens Institute of Technology  
**Award:** $2,500

**PI:** Cihan Dagli  
**Department:** Engineering Management and Systems Engineering  
**Proposal Title:** Senior Design Project: 2018 MARSOC TE 2 Speech Translation  
**Sponsor:** Stevens Institute of Technology  
**Award:** $2,500

**PI:** William Fahrenholtz  
**Department:** Materials Science & Engineering  
**Proposal Title:** Detonation Synthesis of Nanomaterials  
**Sponsor:** Army Research Office  
**Award:** $40,000
Recent Awards
November 2018

PI: Jun Fan
Department: Electrical & Chemical Engineering
Proposal Title: CEMC Membership Agreement for Google
Sponsor: Google, LLC.
Award: $60,000

PI: Ian Ferguson
Department: Electrical & Chemical Engineering
Proposal Title: Proof of Concept for Isolated Collection and Biasing System Solar Cells
Sponsor: Columbus Photovoltaics
Award: $280,794

PI: Gregory Hilmas
Department: Materials Science & Engineering
Proposal Title: Intrinsic Thermal Properties of Boride Ceramics—NSSMS Conference Travel
Sponsor: Office of Naval Research
Award: $67,500

PI: Catherine Johnson
Department: Mining & Nuclear Engineering
Proposal Title: Post Blast Forensics Training for Ft. Leonard Wood USAMPS
Sponsor: Department of Defense
Award: $32,040

PI: Amardeep Kaur
Department: Electrical & Computer Engineering
Proposal Title: EAGER: I-Corps Tams Program: Autonomous Robotic mower applied to Labor Shortage in Landscaping
Sponsor: NSF
Award: $50,000

PI: Edward Kinzel
Department: Mechanical & Aerospace Engineering
Proposal Title: Dimensional control and materials development for additive manufacturing of glass
Sponsor: D. Swarovski KG
Award: $58,648

PI: Robert Landers
Department: Mechanical & Aerospace Engineering
Proposal Title: IPA Assignment for Dr. Robert Landers to NSF CMMI
Sponsor: NSF
Award: $5,825

PI: FueWen Liou
Department: Mechanical & Aerospace Engineering
Proposal Title: Phase I: Optimized Build Plate Design Tool for Metal Laser Powder Bed Additive
Sponsor: Product Innovation and Engineering
Award: $50,000

PI: FueWen Liou
Department: Mechanical & Aerospace Engineering
Proposal Title: Phase II: Onsite Structural Restoration Methods for Aircraft Components
Sponsor: Product Innovation and Engineering
Award: $100,000

PI: David Lipke
Department: Materials Science & Engineering
Proposal Title: Ultra-High Temperature Oxidation Resistant Nanocrystalline Oxides Stabilized by Carbon Networks
Sponsor: Office of Naval Research
Award: $156,421
Recent Awards
November 2018

PI: Ronald O’Malley
Department: Materials Science & Engineering
Proposal Title: Mold Heat Transfer Analysis and Continuous Cast Practice Development for Specialty Steel Grades at ATI Flat Rolled Products Brackenride, PA
Sponsor: ATI Flat Rolled Products
Award: $280,000

PI: Ruwen Qin
Department: Engineering Management and Systems Engineering
Proposal Title: Interdisciplinary Fellowship Program in Engineering Management and Systems Engineering for Rebuilding Infrastructure
Sponsor: Department of Education
Award: $199,000

PI: Sahra Sedighsarvestani
Department: Electrical & Computer Engineering
Proposal Title: A Doctoral Program on Data-Enabled Assurance of Electromagnetic Compatibility
Sponsor: Department of Education
Award: $199,000

PI: Lesley Sneed
Department: Civil, Architectural, & Environmental Engineering
Proposal Title: Investigation of the Performance of Dowels in Concrete Slabs
Sponsor: SIKA Corporation
Award: $24,000

PI: Daniel Tauritz
Department: Computer Science
Proposal Title: LANL/Missouri University of Science and Technology Cyber Security Sciences Institute
Sponsor: Los Alamos National Laboratory
Award: $16,000

PI: Jeremy Watts
Department: Materials Science & Engineering
Proposal Title: Improving the Fracture Toughness of Friction Stir Welding
Sponsor: Office of Naval Research
Award: $52,500

PI: Donald Wunsch
Department: Electrical & Computer Engineering
Proposal Title: M2L for L2M: Mixed-Modality Learning for Lifelong Learning Machines
Sponsor: Department of Defense
Award: $202,000
Selected Funding Opportunities

Department of Defense (DoD)
Photonics in the Package of Extreme Scalability (PIPES)
Sponsor ID: HR001119S0004
Application Due: 03-01-19

DARPA Biological Technologies
Sponsor ID: HR001118S0041
Full Proposal Due: 04-25-19

Department of Commerce (DoC)
Regional Ocean Acidification Observing Optimization Study (OOS-OA19)
Sponsor ID: NOAA-OAR-OAP-2019-2005791
Letter of Intent Due: 03-04-19

National Science Foundation (NSF)
Advanced Computing Systems & Services: Adapting to the Rapid Evolution of Science and Engineering Research
Solicitation ID: 19-534
Full Proposal Due: 03-04-19

NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)
Solicitation ID: 17-527
Full Proposal Due: 03-27-19

Industry-University Cooperative Research Centers Program (IUCRC)
Solicitation ID: 17-516
Preliminary Proposal Due: 04-17-19

Expeditions in Computing
Solicitation ID: 18-528
Full Proposal Due: 04-24-19

NSF-CBMS Regional Research Conferences in the Mathematical Sciences
Solicitation ID: 13-550
Full Proposal Due: 04-26-19

Department of Defense (DoD)
FY 2020 Strategic Environmental Research and Development Program Exploratory Development (SEED) Solicitation
Full Proposal Due: 03-05-19

National Lubricating Grease Institute (NLGI)
National Lubricating Grease Institute (NLGI) 2019 Research Grant
Application Due: 03-15-19

American Chemical Society (ACS)
ACS Petroleum Research Fund (ACS PRF) Grants
Application Due: 03-16-19
Selected Events

Air Force Office of Scientific Research (AFOSR)

2019 2nd Semiannual Government Workshop on 2D Materials
March 22, 2019; Arlington, VA

2019 Workshop on High-Pressure Spectroscopy of HC Combustion
April 15-16, 2019; Arlington, VA

2019 Multifunctional Materials for Defense Workshop
August 26-30, 2019; Arlington, VA

2019 Radiation-Electron Interaction Workshop
October 7-9, 2019; Arlington, VA

2019 Radiation-PH Interaction (TBD) Workshop
October 22-24, 2019; Arlington, VA

2019 Washington DC Government Workshop on 2D Materials Beyond Graphene
TBD

Defense Advanced Research Projects Agency (DARPA)

Artificial Intelligence Colloquium
March 6-7, 2019; Alexandria, VA

Spectrum Collaboration Challenge
October 23, 2019; Los Angeles, CA

National Institutes for Health (NIH)

NIH Regional Seminar on Program Funding and Grants Administration
May 15-17, 2019; Baltimore, MD

National Science Foundation (NSF)

Spring 2019 Grants Conference
May 20-21, 2019; Los Angeles, CA

Funding Search Engines

Federal Grants World
https://grants.gov

PIVOT—Funding Opportunity Database
https://pivot.proquest.com

National Science Foundation
https://www.nsf.gov/funding/index.jsp