



WICHITA STATE  
UNIVERSITY  
OFFICE OF RESEARCH

## INSIDE RESEARCH & Funding Opportunities

News, Events and Resources for the WSU Research Community

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### JUNE 2020

Congratulations to those who received grants in May! Please help the WSU community stay informed by forwarding any notices of funding opportunities and/or training sessions to [research@wichita.edu](mailto:research@wichita.edu). Good luck to all of you in your research efforts over the next month.

Coleen Pugh, AVP for Research

### AWARDS

#### **KANSAS LINEAGE: A PROJECT DOCUMENTING AND SHARING THE STORIES OF OLDER FEMALE WICHITANS TO IMPROVE WELLNESS AND SOCIAL CONNECTION THROUGH AN IMMERSIVE COLLABORATION BETWEEN SOCIAL RESEARCH AND MOVEMENT**

PI/Department: Cheyla Clawson, School of Performing Arts

Sponsor: Regional Institute on Aging

Amount: \$25,000.00

#### **SMALL MOLECULE PROTEASE INHIBITORS AGAINST MERS-COV**

PI/Department: William Groutas, Chemistry

Sponsor: Kansas State University / Natl Institutes of Health

Amount: \$234,016.00

## **INNOVATIVE UPGRADING OF NATURAL GAS TO VALUE-ADDED LIQUIDS WITH ULTRAHIGH ACTIVITY**

PI/Department: Shuang Gu, Mechanical Engineering

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,784.00

## **STABILITY ISSUES IN SOME BIOMEDICAL, FINANCIAL, AND GEOPHYSICAL INVERSE PROBLEMS**

PI/Department: Victor Isakov, Mathematics & Statistics & Physics

Sponsor: Natl Science Foundation

Amount: \$255,214.00

## **ONLINE TRIAL STUDY MAY 14**

PI/Department: Jeffrey Jarman, The Research Partnership

Sponsor: Tsongas

Amount: \$3,000.00

## **INDUSTRIAL ENGINEERING SERVICES**

PI/Department: Krishna Krishnan, Industrial & Manufacturing Eng

Sponsor: Spirit Aerosystems INC

Amount: \$203,400.00

## **ADAPTIVE NUMERICAL METHODS FOR BIOLOGICAL PATTERN FORMATION**

PI/Department: Yuan Liu, Mathematics & Statistics & Physics

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,784.00

**HOT, DRY, AND WET AGAIN: EFFECTS OF DROUGHT AND WARMING ON WETLAND MICROBIAL COMMUNITIES**

PI/Department: Thomas Luhring, Biological Sciences

Sponsor: Unive of Kansas Ctr - Research INC / Natl Science Foundation

Amount: \$117,096.00

**KANSAS NATIONAL SPACE GRANT COLLEGE AND FELLOWSHIP PROGRAM – OPPORTUNITIES IN NASA STEM FY 2020-2024**

PI/Department: Leonard Miller, Aerospace Engineering

Sponsor: Natl Aeronautics & Space Admn

Amount: \$760,000.00

**PROBABILISTIC APPROACH TO REVERSE ENGINEERING OF SPACEFLIGHT MOLECULAR NETWORKS**

PI/Department: Leonard Miller, Aerospace Engineering

Sponsor: Natl Aeronautics & Space Admn

Amount: \$100,000.00

**AN ACTIVE LEARNING FRAMEWORK FOR INCREASING GENERALIZABILITY OF MACHINE LEARNING MODELS**

PI/Department: Leonard Miller, Aerospace Engineering

Sponsor: Natl Aeronautics & Space Admn

Amount: \$99,994.00

**CLASSIFYING NEUTRINO INTERACTIONS WITH BEOSHOCK**

PI/Department: Mathew Muether, Physics

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,200.00

**SOMOS DE WICHITA: TELLING THE STORY OF ASSIMILATION AND IDENTITY IN WICHITA'S LATINO COMMUNITY**

PI/Department: Jay Price, History and Geography

Sponsor: Humanities Kansas / Natl Endowment for the Humanities

Amount: \$3,500.00

**FACE RECOGNITION USING BODY-WORN CAMERAS**

PI/Department: Ajita Rattani, Electrical & Computer Engr

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,784.00

**EFFECTS OF DEFECTS IN ADVANCED THERMOPLASTIC INTEGRATED STRUCTURES VIA AUTOMATED TOLLESS MANUFACTURING**

PI/Department: Waruna Seneviratne, NIAR-Composites & Structures

Sponsor: Office of Naval Research

Amount: \$1,500,000.00

**EFFECTS OF PROCESS PARAMETERS ON THE PERFORMANCE OF THERMOPLASTICS IN AIRFRAME STRUCTURAL APPLICATIONS**

PI/Department: Waruna Seneviratne, NIAR-Composites & Structures

Sponsor: Office of Naval Research

Amount: \$1,500,000.00

**STRUCTURAL PERFORMANCE OF FIBER PATCH PLACEMENT FOR AIRCRAFT APPLICATIONS WITH COMPLEX CONTOURS**

PI/Department: Waruna Seneviratne, NIAR-Composites & Structures

Sponsor: Office of Naval Research

Amount: \$1,182,000.00

**DEVELOPMENT OF JOINT AUTONOMOUS REPAIR VERIFICATION AND INSPECTION SYSTEM**

PI/Department: Waruna Seneviratne, NIAR-Composites & Structures

Sponsor: Office of Naval Research

Amount: \$1,193,192.00

**COLD SPRAY ADDITIVE MANUFACTURING FOR RAPID SUSTAINMENT INITIATIVES**

PI/Department: John Tomblin, Nat'l Institute for Aviation Res

Sponsor: Office of Naval Research

Amount: \$516,847.00

**SHIVER SOLUTIONS**

PI/Department: Mark Torline, Center for Entrepreneurship

Sponsor: VentureWell

Amount: \$5,000.00

**WICHITA STATE ENVIROMENTAL FINANCE CENTER: CORE GRANT: FOOD WASTE SUMMIT PROJECT**

PI/Department: Melissa Walker, Hws of Urban & Public Affairs

Sponsor: Environmental Protection Agency

Amount: \$69,095.00

**AN EMPIRICAL STUDY OF MUNICIPAL FINANCIAL CONDITION IN THE U.S.**

PI/Department: Xiaoheng Wang, Hws of Urban & Public Affairs

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,784.00

**TRANSITION METAL OXIDES FOR ENHANCE ENERGY STORAGE SYSTEMS**

PI/Department: Wei Wei, Mechanical Engineering

Sponsor: Internal - Award for Resesarch/Creative projects (ARC)

Amount: \$3,784.00

**BOARD DEVELOPMENT**

PI/Department: Scott Wituk, Community Engagement Institute

Sponsor: Leading Age Kansas

Amount: \$4,000.00

## **DATA MANAGEMENT**

PI/Department: Scott Wituk, Community Engagement Institute

Sponsor: Russell Child Development

Amount: \$2,178.00

## **ESSENTIALS FOR CHILDHOOD COMMUNICATIONS CAMPAIGN**

PI/Department: Scott Wituk, Community Engagement Institute

Sponsor: Dept of Health & Environment-Kansas / Centers for Disease Control

Amount: \$70,048.00

## **FUNDING OPPORTUNITIES**

### **Focused Funding Opportunities**

For access to [WSU's Pivot](#) account to search for funding opportunities, please sign up and affiliate with Wichita State University using your WSU email address. To request assistance with a customized searching please contact [funding@wichita.edu](mailto:funding@wichita.edu).

### **Funding Agency: National Science Foundation (NSF)**

**\*\*\*LIMITED\*\*\***

Title: [Major Research Instrumentation Program \(MRI\)](#)

Application Deadline: Internal Notice of Intent Due July 14, 2020 at Noon // Internal Pre-Proposal Due Date: July 21, 2020 at Noon // Full Proposal (if selected): January 19, 2021

Purpose: "The Major Research Instrumentation (MRI) Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation's institutions of higher education and not-for-profit scientific/engineering research organizations. An MRI award supports the acquisition or

development of a multi-user research instrument that is, in general, too costly and/or not appropriate for support through other NSF programs. MRI provides support to acquire critical research instrumentation without which advances in fundamental science and engineering research may not otherwise occur. MRI also provides support to develop next-generation research instruments that open new opportunities to advance the frontiers in science and engineering research. Additionally, an MRI award is expected to enhance research training of students who will become the next generation of instrument users, designers and builders.”

Amount: Track 1: Greater than \$100,000 and less than \$1,000,000; Track 2: \$1,000,000-\$4,000,000.

Please note that this is a Limited Submission. WSU may only submit two Track 1 proposals and only one Track 2 proposal. You must email [proposals@wichita.edu](mailto:proposals@wichita.edu) by the Internal Due Date if you are interested in submitting for this opportunity.

### **Funding Agency: National Institute of Health**

\*\*\*LIMITED\*\*\*

Title: [NIH Prize for Enhancing Faculty Gender Diversity in Biomedical and Behavioral Science](#)

Application Deadline: Internal Notice of Intent Due March 12, 2021 at Noon // Internal Pre-Proposal Due Date: March 26, 2021 at Noon // Full Proposal (if selected): April 16, 2021

Purpose: “Though the proportions of women and men are similar at the graduate level for biomedical sciences and in medical schools, women are underrepresented at the faculty level in both science and medicine, particularly in the mid- to senior-level ranks ([National Science Foundation 2017 Doctorate Recipients from U.S. Universities](#); and [2016 CBE Life Sci Educ. 15\(3\)](#)). Diversity of thought and expertise have been recognized as attributes that drive innovation, complement dynamic research, and promote excellence. Supporting the sustained advancement of women in biomedical careers has the potential to enhance such diversity in the faculty ranks across scientific fields. Doing so will also promote more inclusive research and clinical environments which are critical to retaining and advancing women in biomedical careers.”

Amount: Prize of up to \$50,000 per institution

### **Funding Agency: National Science Foundation (NSF)**



\*\*\*LIMITED\*\*\*

Title: [Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science \(NSF INCLUDES\)](#)

Application Deadline: Internal Due Date: August 14, 2020 – Noon // LOI: October 5, 2020 // Full Proposal: January 26, 2021

Purpose: “With this solicitation, NSF is continuing to offer opportunities to propose an NSF INCLUDES Alliance that has the potential to substantially broaden the participation of individuals from underrepresented and underserved groups in STEM, especially in STEM fields that lack diversity. Alliances use lessons learned, promising practices, evidence-based mechanisms, the science of broadening participation, and the research and evaluations from past and present efforts related to broadening participation in STEM. Alliances bring together programs, people, organizations, technologies, and institutions to achieve results at scale, provide new research, and leverage NSF’s broadening participation investments. Each Alliance is committed to collectively achieving common goals through a well-defined set of common objectives.”

Amount: \$1,000,000-\$2,000,000 per year for five years

Please note that this is a Limited Submission. You must email [proposals@wichita.edu](mailto:proposals@wichita.edu) by the Internal Due Date if you are interested in submitting for this opportunity.

### **Funding Agency: National Science Foundation**

Title: [Graduate Research Fellowship Program \(GRFP\)](#)

Application Deadline: October 2020 (dates vary by program)

Purpose: “The purpose of the NSF Graduate Research Fellowship Program (GRFP) is to help ensure the vitality and diversity of the scientific and engineering workforce of the United States. The program recognizes and supports outstanding graduate students who are pursuing full-time research-based master's and doctoral degrees in science, technology, engineering, and mathematics (STEM) or in STEM education. The GRFP provides three years of support for the graduate education of individuals who have demonstrated their potential for significant research achievements in STEM or STEM education. NSF especially encourages women, members of underrepresented minority groups, persons with disabilities, veterans, and undergraduate seniors to apply.”

Amount: “Each Fellowship consists of three years of support during a five-year fellowship period. Currently, NSF provides a stipend of \$34,000 to the Fellow and a

cost-of-education allowance of \$12,000 to the graduate degree-granting institution for each Fellow who uses the fellowship support in a fellowship year.”

**Funding Agency: The CHARGE SYNDROME Foundation**

Title: Basic Science Research Grant Application

Application Deadline: July 1, 2020

Purpose: “to promote: a) new biomedical research into the etiology, genetic and molecular mechanisms and treatment of CHARGE syndrome or b) new research into the medical diagnosis and treatment of CHARGE syndrome. Both established and new investigators are encouraged to apply. Proposals are for funding from October 1, 2020 through September 30, 2021 and may be in any area of basic, translational or epidemiological research. Preference will be given to investigators who are new to CHARGE research and/or to new projects with clear potential to lead to future funding from other agencies.”

Amount: Up to \$50,000

**Funding Agency: Alfred P. Sloan Foundation**

Title: Chemistry of Indoor Environments

Application Deadline: Ongoing – submit letters of inquiry anytime. Note, you must be invited in order to submit a full application.

Purpose: “To grow a new field of scientific inquiry focused on understanding the fundamental chemistry taking place in indoor environments and how that chemistry is shaped by building attributes and human occupancy.”

Amount: Varies – see website for list of previous awards.

**Funding Agency: Alfred P. Sloan Foundation**

Title: Economic Institutions, Behavior, and Performance

Application Deadline: Ongoing – submit letters of inquiry anytime. Note, you must be invited in order to submit a full application.

Purpose: “To support rigorous and objective research projects on U.S. economic structure, behavior, and performance whose findings inform and strengthen decision-making by regulators, policymakers, and the public.”

Amount: Varies – see website for list of previous awards.

**Funding Agency: Alfred P. Sloan Foundation**

Title: [Energy & Environment](#)

Application Deadline: Ongoing – submit letters of inquiry anytime. Note, you must be invited in order to submit a full application.

Purpose: “To advance understanding about the economic, environmental, security, and policy trade-offs associated with the increased deployment of low- and no-carbon resources and technologies across the energy system and the resulting impacts on the quality of American life.”

Amount: Varies – see website for list of previous awards.

**Funding Agency: Environmental Protection Agency**

Title: [Estimating Children’s Soil and Dust Ingestion Rates for Exposure Science](#)

Application Deadline: August 5, 2020

Purpose: “The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is asking the scientific community to propose transdisciplinary research to develop or apply innovative approaches/methods to improve the estimates, better characterize the variability, and reduce the uncertainty concerning chemical exposures via soil and dust ingestion for children aged 6 months through 6 years.”

Amount: Up to a total of \$1.35 million, including direct and indirect costs, with a maximum duration of 3 years. Cost-sharing is not required.

**Funding Agency: The National Academies of Sciences, Engineering, and Medicine Fellowships Office**

Title: [NRC Research Associateship Programs](#)

Application Deadline: Quarterly – next due date August 1, 2020

Purpose: “The NRC Research Associateship Programs (RAP) promote excellence in scientific and technological research conducted by the U.S. government through the administration of programs offering graduate, postdoctoral, and senior level research opportunities at sponsoring federal laboratories and affiliated institutions. In the NRC Research Associateship Programs, prospective applicants select a research project or projects from among a large group of Research Opportunities available through this website.”

**Funding Agency: National Institute of Health**

Title: [International Research Collaboration on Drug Abuse and Addiction Research](#)

Application Deadline: Standard NIH Due Dates – October 5, 2020

Purpose: “This Funding Opportunity Announcement (FOA) invites applications for international collaborative research on drug abuse and drug addiction. Newly formed or well-established research teams consisting of investigators from U.S.-based institutions and researchers in other countries may propose state-of-the-science research that takes advantage of unique research opportunities in other countries, speeds scientific discovery, and advances U.S. health science.”

Amount: Typical of R01, amount is not limited, but must be reasonable; project period up to five years.

**Funding Agency: National Endowment for the Humanities**

Title: [Humanities Initiatives at Colleges and Universities](#)

Application Deadline: July 16, 2020

Purpose: “Humanities Initiatives at Colleges and Universities strengthen the teaching and study of the humanities at institutions of higher education by developing new humanities programs, resources (including those in digital format), or courses, or by enhancing existing ones. Projects must be organized around a core topic or set of themes drawn from such areas of study in the humanities as history, philosophy, religion, literature, and composition and writing skills.”

Amount: \$150,000; one – three years

**Funding Agency: NASA**

Title: [ROSES 2020: Astrophysics Explorers U.S. Participating Investigators](#)

Application Deadline: Mandatory Notices of Intent due August 3, 2020

Purpose: “This ROSES program element for Astrophysics Explorers U.S. Participating Investigators (APEX USPI) solicits proposals for Astrophysics Explorers investigations in which investigators participate as a Co-Investigator (Co-I) for an instrument, experiment, or technology demonstration that is being built and flown by a sponsor agency other than NASA.”

“This National Aeronautics and Space Administration (NASA) Research Announcement (NRA), Research Opportunities in Space and Earth Sciences (ROSES) – 2020, solicits basic and applied research in support of NASA’s Science Mission Directorate (SMD). ROSES is an omnibus NRA, with many individual program elements, each with its own due dates and topics. All together these cover the wide range of basic and applied research and technology in space and Earth sciences supported by SMD.”

Amount: D.13 Astrophysics Explorers is \$125,000 per year per investigator.

**Funding Agency: ECMC Foundation**

Title: [Grants related to College Success and Career Readiness](#)

Application Deadline: Rolling Letter of Intent

Purpose: “ECMC Foundation is a national foundation working to improve postsecondary outcomes for students from underserved backgrounds... Demand for funding has increased dramatically in the last several weeks as a result of the COVID-19 pandemic and its impact on postsecondary institutions and the students they serve. As a result, we are giving priority to those requests that address the immediate challenges and opportunities arising from the pandemic. We are especially interested in those proposals that focus on implementing systemic reforms to increase college success and career readiness for students from underserved backgrounds.”

**Funding Agency: USDA America’s Healthy Food Financing Initiative**

Title: [Targeted Small Grants Program 2020 Request for Applications](#)

Application Deadline: Letters of Intent (required) due July 10, 2020

Purpose: “grants for innovative fresh food retail and food system enterprises that seek to improve access to healthy food in underserved areas”

Amount: Between \$20,000 - \$200,000

**Funding Agency: Kansas IDeA Network of Biomedical Research Excellence (K-INBRE)**

Title: [Faculty Funding Opportunities and Awards \(around the research theme of Cell and Developmental Biology\)](#)

Application Deadline: Varies based on each funding opportunity

Purpose: “The purpose of the Kansas INBRE (K-INBRE) is to strengthen the ability of Kansas researchers to compete effectively for NIH funds by building a “critical mass” of junior and senior investigators, as well as undergraduates, graduate students, and post-doctoral fellows supported with cutting edge technology within a scientific research theme. The scientific research theme chosen for the K-INBRE is Cell and Developmental Biology.”

Amount: Varies based on each funding opportunity

**Funding Agency: Kansas IDeA Network of Biomedical Research Excellence (K-INBRE)**

Title: [K-INBRE Faculty Bridging Award Year 2020, Round 2](#)

Application Deadline: Noon, August 3, 2020

Purpose: “A Bridging Grant provides interim support to help a project in Cell and Developmental Biology continue for an eligible investigator who has submitted a grant to NIH that was approved on the basis of scientific merit, but fell short of the funding range (applications with a score below the 40th percentile will be triaged). These funds should assist in providing data needed to submit a revised application to NIH. The resources available have been earmarked exclusively to help an on-going project that has just missed the funding cut-off to keep momentum going until NIH funds are secured.”

Amount: Budgets for an R01 -\$40,000/direct costs; Budgets for an R21 -\$25,000/direct costs. F&A can be added as appropriate to your campus for F&A recovery. The earliest anticipated start date is October 1. Funds must be spent or encumbered by April 30,

2021. Awards are contingent on project approval from NIGMS and the availability of future funds from NIH/KBOR.

**Funding Agency: American Chemical Society (ACS)**

Title: [Global Innovation Imperatives \(Gii\) Applications are Now Open!](#)

Application Deadline: July 15, 2020

Purpose: “The ACS Gii 2020 program is now accepting applications through July 15th. The Gii program provides funding to an ACS group to hold a multi-day research event to contribute to the resolution of global sustainability issues. Up to \$20,000 USD in funding is available for projects completed in 2020. Due to COVID-19, all program activities must be virtual and/or comply with local pandemic regulations. For more information, visit [www.acs.org/gii](http://www.acs.org/gii) or email us at [intlacts@acs.org](mailto:intlacts@acs.org).”

**EDUCATION/TRAINING**

**Basic Research Innovation and Collaboration Center: How to Engage with the AFRL Research Ecosystem**

Friday, June 19, 2020

8:45 am – 12:00pm EDT

This LIVE virtual event is a great opportunity for university researchers and administrators to learn how do business with the Air Force Research Laboratory --- from basic to applied. Hear real accounts of researchers who have successfully navigated the system and transitioned work to the commercial sector. Get tips and resources from subject matter experts on applying for funding and building lasting relationships in the research ecosystem!

[Subscribe here](#)

**US Department of Justice - Bureau of Justice Assistance Webinars**

Watch Anytime

To assist potential applicants interested in applying for funding opportunities, BJA hosts a Grant Applicant Education Series of webinars and solicitation-specific webinars. The

webinar topics include: Preparing and applying for BJA opportunities, overview of BJA funding opportunities.

[No registration is required.](#)

## **Kresge Foundation Webinar: Communicating Critical Messages During Challenging Times**

Tuesday, June 23, 2020

4:00 – 5:30pm CST

Description: “Every day, we rely on the experience and expertise of public health officials to protect us from threats like COVID-19. But as the pandemic continues, health departments around the country face challenges in communicating critical messages to the people they serve. Join the Kresge Foundation ... and learn tips for how public health officials can assess audience needs and create clear and compelling messages to reach and engage them during different stages of a crisis.”

[More information and registration here.](#)

## **National Science Foundation CAREER Webinar**

Watch Anytime

Description: “The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from early-career faculty at all CAREER-eligible organizations and especially encourages women, members of underrepresented minority groups, and persons with disabilities to apply.”

[Watch the pre-recorded webinar about the NSF CAREER program here.](#)

## **Health & Human Services Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) Online Resources**



Available Anytime

Description: “Explore all the ways you can engage and connect online with the HHS SBIR and STTR programs. Our suite of online resources and active social media presence make it easier to stay informed about the latest updates and events.”

[HHS SBIR-STTR Engage and Connect Website](#)

### **Environmental Protection Agency Research Webinar Series**

Available Anytime

Description: “We hold several monthly webinars dedicated to informing and training stakeholders and decision-makers about cutting-edge scientific research in order to provide assistance and solutions to environmental and public health issues.” Upcoming topics include: Computational Toxicology Communities of Practice Webinars, Homeland Security Research Webinar Series, Sustainable and Healthy Communities Research Webinar Series

[EPA Research Webinar Series Website](#)

### **Dell Technologies: University Research & HPC: Urgent Against COVID-19, Crucial for Discovery & Innovation**

Thursday, June 25, 2020

11:00 AM PT

Description: Join our panel of experts at top US research university high performance computing (HPC) centers to learn how the interdependence and impact of HPC and academic research continues to grow.

[Register here](#)