# ENGINEERING RESEARCH DIGEST

A Weekly Newsletter for Engineering Pls Interested in Funding Opportunities and News



Issue: February 3, 2021
Email: proposalsupport@tamu.edu

- TEES NSF CAREER Proposal Biweekly Discussion Forums 2021
  - · Session #2: Relationship to the Present State of Knowledge
  - · All COE/TEES researchers and postdocs are welcome to attend
  - Monday **February 8** from noon-1:00 p.m.
  - Zoom; Meeting ID: 951 9130 9931; Passcode: 668888
- Virtual Office Hours: TEES Proposal Assistance Mondays at 12:00-1:00 p.m. and Thursdays at 4:00-5:00 p.m. Click Here.



# **Upcoming Events**

For all events, registration, and information, please visit (link).

### INTERNAL •

F NSF Broader Impacts & Education Plan Expo & Seminar - <u>Click Here</u>

February 3, 2021 1:00 – 5:00 p.m.

Managing Research Data: A Guide to Good Practice - Click Here

February 5, 2021 12:00 - 1:00 p.m.

F NSF CAREER Writing Groups: Initial Meeting - Click Here

February 10, 2021 1:30 - 3:00 p.m.

Publishing Data in the Texas Data Repository - Click Here

February 18, 2021 4:00 - 5:00 p.m.

 $Transitioning\ from\ Single\ PI\ to\ Multi-Investigator,\ Multi-Institutional\ Proposals-\underline{Click\ Here}$ 

February 19, 2021 10:00 - 11:00 a.m.

Exploring and Navigating Data Danger Zones - Click Here

February 25, 2021 4:00 - 5:00 p.m.

Getting Started in Grantseeking for Early and Middle Career Faculty - Click Here

March 12, 2021 10:00 - 11:00 a.m.

F Demystifying the NSF - Click Here

March 24, 2021 1:30 - 3:00 p.m.

Resubmissions and Interpreting Reviewer Feedback - Click Here

April 16, 2021 10:00 - 11:00 a.m.

### EXTERNAL -

NSF CHE Virtual Office Hours - Click Here

February 5, 2021; February 19,2021 4:00 p.m.

NSF Build and Broaden 2.0 Informational Webinar - Click Here

February 9, 2021 2:00 - 3:00 p.m.

DOE Feedstock-Conversion Interface Consortium Webinar: Developing Modeling Tools for the Emerging Biorefinery Industry - <u>Click Here</u>

February 11, 2021 12:00 p.m.

AWS Serverless Applications in Python - Click Here

February 16, 2021 11:00 a.m.

NENLD Webinar Series: Terrestrial, Aquatic and Marine Interfaces - Click Here

February 18, 2021 2:00 - 4:00 p.m.

2021 ESC 2 Technology Conference - Click Here

February 19, 2021 8:00 a.m. - 4:00 p.m.

2021 Project Peer Review - Click Here

March 8 - 16 & 22 - 26, 2021



# **Funding Opportunities**

A database with a more in-depth review of funding opportunities including details such as funding size, sponsor, and topic can be found <u>HERE</u>.

(Items denoted with: LS – Limited Submission, F – Junior Faculty, SPD – Student or Postdoctoral)

Engineering News, Awards, Research Stories, and SoundBytes can be found <u>HERE</u>.

# LIMITED SUBMISSIONS

The Division of Research has implemented a brand new proposal submission and review portal. The system will be used for limited submissions and most internal grant programs (<u>link</u>).

NEWI NIH Biomedical Research Facilities (C06 Clinical Trial Not Allowed) (link) – Internal Due: February 4, 2021. Letter of Intent: February 17, 2021. Full Due: March 17, 2021.

NSF Enabling Quantum Leap: Quantum Interconnect Challenges for Transformational Advances in Quantum Systems (QuIC-TAQS) (link) – Internal Due: February 10, 2021. Preliminary Proposal Due: April 12, 2021. Full Due: June 14, 2021.

NIH Enhancing Science, Technology, EnginEering, and Math Educational Diversity (ESTEEMED) Research Education Experiences (R25) (link) – Internal Due: February 25, 2021. Letter of Intent Due: May 24, 2021. Full Due: June 24, 2021.

*NIH Team-Based Design in Biological Engineering Education (R25)* (link) – Internal Due: March 1, 2021. Letter of Intent Due: April 27, 2021. Full Due: June 29, 2021.

NSF Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support (ACCESS) (link) – Internal Due: March 1, 2021. Full Due: June 16, 2021.

Breast Cancer Alliance Exceptional Project Grants (link) – Internal Due: March 8, 2021. Letter of Intent Due: April 5, 2021. Full Due: July 23, 2021.

NIH Maximizing Accessing to Research Careers (T34) (link) – Internal Due: March 15, 2021. Full Due: May 21, 2021

Pew 2022 Biomedical Scholars Award (<u>link</u>) – Internal Due: April 15, 2021. Application Due: September 1, 2021. National Science Foundation Research Traineeship (NRT) Program (<u>link</u>) – Internal Due: <u>Limited Submissions</u>. Full Due: February 25, 2021, September 6, 2021.

Established Program to Stimulate Competitive Research (EPSCoR) Implementation Grants (link) – Internal Due: Limited Submissions. Full Due: March 2, 2021.

*NSF EPSCoR Research Infrastructure Improvement (RII) Track-4: EPSCoR Research Fellows* (link) – Internal Due: Limited Submissions. Full Due: Varies.

# COVID-19 \_\_\_\_

# https://tees.tamu.edu/covid-19/index.html

Database for COVID-19 Research Opportunities (NetID Login Required) <u>Click Here</u>.

COVID-19 Contacts: Dr. Joe Elabd – <u>elabd@tamu.edu</u>; Dr. Saurabh Biswas – <u>saurabh biswas@tamu.edu</u>
Centers for Disease Control (CDC)

Community Health Workers for COVID Response and Resilient Communities (CCR) – Evaluation and Technical Assistance (ETA); CCR-ETA (link) – Full Due: May 22, 2021. Award: \$1,000,000 and \$3,000,000.

### **National Institutes of Health (NIH)**

Notice of Special Interest: Aging-Relevant Behavioral and Social Research on Coronavirus Disease 2019 (COVID-9) (link)

Notice of Special Interest: Effects of Smoking and Vaping on the Risk and Outcome of COVID-19 Infection (link)

Notice of Special Interest: NIDCR Support for Research on the Physiological Involvement of Oral Cavity in Coronavirus Disease 2019 (COVID-19) (link)

 NIH's New COVID Research Information Page: Find information regarding NIH's research funding opportunities, responses, and changes regarding the COVID-19 pandemic Click Here.

#### INTERNAL

Data Science Career Initiation Fellow Program (link) – Nominations Due: March 8, 2021. Award: \$10,000. X-Grants Round 4 (link) – Title Submission Window (extended): December 14, 2020 – January 26, 2021. One-pager Submission Window: January 18, 2021 – February 15, 2021. Preliminary Proposals Submission Window: March 1, 2021 – March 29, 2021. Full Proposals Submission Window: April 12, 2021 – May 10, 2021. Public Presentations: May 19 and 21, 2021. Award: Between \$325,000 and \$1,500,000.

# New - External •

### **Department of Defense (DOD)**

*Military Health System Research (MHSR)* (link) – Full Due: September 30, 2021. Award: Size of award subject to the availability of funds and quality of applications.

(Anticipated) Broad Agency Announcement (BAA): Multi-Spectral Sensing Technologies Research and Development (MUSTER) (link) – Award: Between \$100,000 and \$10,000,000.

### **Department of Energy (DOE)**

*X-Strack: Programming Environments for Scientific Computing* (link) – Pre-Application Due: March 1, 2021. Full Due: April 12, 2021. Award: Size of award subject to the availability of funds and quality of applications.

# **National Institutes of Health (NIH)**

Biomedical Research Facilities (C06 Clinical Trial Not Allowed) (link) – Internal Due: February 4, 2021. Letter of Intent: February 17, 2021. Full Due: March 17, 2021. Award: Between \$3,000,000 and \$8,000,000.

Nutrition for Precision Health, Powered by the All of Us Research Program: Artificial Intelligence for Multimodal Data Modeling and Bioinformatics Center (U54 Clinical Trial Not Allowed) (link) – Letter of Intent: 30 days prior to the application due date. Full Due: April 6, 2021. Award: \$2,000,000 in FY22 and FY23; \$3,000,000 per year for FY24 through FY26.

NIA Academic Leadership Career Award (K07 Independent Clinical Trial Not Allowed) (link) – Full Due: June 12, 2021. Award: Award budgets are composed of salary and other program-related expenses for a period of up to five years.

NIH Blueprint for Neuroscience Research: Tools and Technologies to Explore System Biomolecular

*Condensates (R21 Clinical Trial Not Allowed)* (link) – Full Due: September 15, 2021. Award: Application budgets are limited to \$275,000 with no more than \$200,000 requested for a single year. The maximum project period is two years.

Notice of Special Interest: Leveraging Real-World Imaging Data for Artificial Intelligence-based Modelingand Early Detection of Abdominal Cancers (<u>link</u>)

- Explore RePORTER's State Map Visualizations: Ever find yourself wondering what and how much research NIH supports near you? Check out what the modernized RePORTER site has to offer in three easy steps!
- NIH will be closed on Monday February 15, 2021 for the federal holiday Washington's Birthday.
   If a grant application due date falls on a federal holiday, the application is automatically extended to the next business day. 2021 Federal Holiday Schedule

## **National Science Foundation (NSF)**

Spectrum Innovation Initiative: National Center for Wireless Spectrum Research (SII-Center) (link) – Letter of Intent Due: March 1, 2021. Submission Window: April 1, 2021 – April 30, 2021. Award: Size of award subject to the availability of funds and quality of applications.

*Dear Colleague Letter: Leadership-Class Computing Facility Application Team Partners* (<u>link</u>) – Response Due: February 6, 2021.

Dear Colleague Letter: Light and Warm Superconductors (link) - Response Due: March 22, 2021.

Dear Colleague Letter: Pilot Projects to Integrate Existing Data and Data-Focused Cyberinfrastructure to Enable Community-level Discovery Pathways (link) – Response Due: March 23, 2021.

Dear Colleague Letter: Computer and Information Science and Engineering Graduate Fellowships (CSGrad4US) (link) – Response Due: April 13, 2021.

Dear Colleague Letter: Request for Expression of Interest Regarding Provision of a Drilling Vessel to Support Future International Scientific Ocean Discovery (link) – Response Due: May 1, 2021.

Dear Colleague Letter: Supporting Data and Sample Reuse in Polar Research (link)

Frequently Asked Questions (FAQs) for Mid-Career Advancement (MCA) – NSF 21-042

#### **United States Agency for International Development (USAID)**

*The Microbicide 2021 Introduction and Access Project* (link) – Full Due: March 28, 2021. Award: \$5,000,000 for a period of five years.

#### ADDITIONAL OPPORTUNITIES/OUTREACH —

#### **National Science Foundation (NSF)**

Interdisciplinary Program Director (2 vacancies) (link) (link) - Application Due: February 16, 2021.

Division Director, Division of Astronomical Sciences (link) – Application Due: April 16, 2021.

Program Director (Convergence Accelerator Office) (link) - Application Due: Open until filled.

Program Director (Operations Engineering Program) (link) - Application Due: Open until filled.

#### PREVIOUSLY NOTATED OPPORTUNITIES -

NIH Small Vessel VCID Biomarkers Validation Consortium Coordinating Center (U24 Clinical Trial Not Allowed) (link) – Letter of Intent Due: February 8, 2021. Full Due: March 8, 2021.

NIH Summer Institute for Research Education in Biostatistics and Data Science (R25 Clinical Trial Not Allowed) (link) – Letter of Intent Due: February 9, 2021. Full Due: March 9, 2021.

NIH Small Vessel VCID Biomarkers Validation Consortium Sites (U01 Clinical Trial Not Allowed) (link) – Letter of Intent Due: February 9, 2021. Full Due: March 9, 2021.

NSF Understanding the Rules of Life: Microbiome Interactions and Mechanisms (URoL: MIM) (link) – Full Due: February 23, 2021.

NSF Smart and Connected Communities (S&CC) (link) - Full Due: February 24, 2021.

NASA ROSES 2020: The Science of Terra, Aqua, and Suomi-NPP (link) – Full Due: February 24, 2021.

National Science Foundation Research Traineeship (NRT) Program (link) – Full Due: February 25, 2021, September 6, 2021.

NASA SMD Call for COVID Augmentations and Funded Extensions (link) - Full Due: March 5, 2021.

NASA ROSES 2020: NASA Suomi National Polar-Orbiting Partnership (NPP) and the Joint Polar Satellite System(JPSS) Satellites Standard Products for Earth System Data Records (link) – Full Due: March 10, 2021.

NSF Dear Colleague Letter: Supplemental Funding Requests to Conduct Experimental Research on the NSF-Funded Platforms for Advanced Wireless Research (PAWR) (link) Responses Due: March 15, 2021.

*NSF Future of Work at the Human-Technology Frontier: Core Research (FW-HTF)* (link) – Full Due: March 23, 2021.

DOD Broad Agency Announcement (BAA) National Defense Stockpile Basic Research (link) – White Papers Due: March 30, 2021. Full Due: September 30, 2021.

DOD Center of Excellence (COE) Radiation Effect in Electronic Materials, Circuits, Devices, and Systems (link) -Full Due: March 31, 2021.

*NSF Center for Advancement and Synthesis of Open Environmental Data and Sciences* (<u>link</u>) – Letter of Intent Due: April 1, 2021. Preliminary Proposal Due: April 9, 2021. Full Due: September 15, 2021.

Small Business Innovation Research (SBIR) Program Phase II (link) - Full Due: May 3, 2021.

DOD Broad Agency Announcement (BAA): Robust and Efficient Computing Architectures, Algorithms and Applications for Embedded Deep Learning (link) – Full Due: FY22 May 28, 2021; FY23 May 27, 2022.

*DOD Naval Air Warfare Center Aircraft Division (NAWCAD) Office-Wide* (link) – Application Due: Open until June 3, 2021.

DOD C4ISR, Information Operations, Cyberspace Operations and Information Technology System Research BAA (link) – Application Due: Open until June 3, 2021.

NIST Open Media Forensics Challenge (link) – Submission Due: June 2021.

DOD FY20 Propulsion and Power Technology Program BAA (link) - Full Due: July 28, 2021.

NASA 2020 Human Exploration Research Opportunities (HERO) (link) – Proposal due dates will be staggered throughout the HERO open period of July 31, 2020 to July 2021.

NIH Countermeasures Against Chemical Threats (CounterACT) Research Centers of Excellence (U54 - Clinical Trial Optional) (link) – Letter of Intent Due: 30 days prior to application due date. Full Due: September 14, 2021; September 13, 2022; September 12, 2021.

DOD Science & Technology for Advanced Manufacturing Projects (STAMP) (link) – Full Due: October 30, 2021. NIST MEP Competitive Awards Program (link) – Full Due: The approximate start date for successful applications is 90-180 days following the submission of an application.



# **Junior Faculty Opportunities**

#### Current & Future =

*DOE Early Career Research Program* (link) – Pre-Application Due: November 20, 2020. Full Due: February 16, 2021. Award: \$750,000-\$1,000,000.

Freigest Fellowships (link) - Full Due: April 1, 2021. Award: up to \$2,600,840.

NIH Stephen I. Katz Early Stage Investigator Research Project Grant (R01 Clinical Trial Not Allowed) (link) – Full Due: May 26, 2021; September 28, 2021; January 26, 2022; May 26, 2022; September 27, 2022; January 26, 2023; May 26, 2023; September 26, 2023. Award: Application budgets are not limited but must reflect the needs of the

project.

Breast Cancer Alliance Young Investigator Grants (link) - Full Due: July 23, 2021. Award: \$125,000.

Young Investigators Programs (link)

Junior Faculty Targeted Funding Opportunities (<u>link</u>)

Young Investigator Awards (link)

*DeBakey Executive Research Leadership Program* (link) – This unique program trains junior faculty, postdocs and doctoral students to successfully lead a multifaceted high-end research operation, convey critical skills to lead, manage, and direct students and staff at all levels.

Funds are available to help Assistant Professors in visiting funding agency program officers at DoD, DoE, NSF, DARPA, etc., when they are ready. Readiness will be assessed by Dr. Z.J. Pei based on a justification statement submitted by the faculty member, including expertise, experience, and research ideas. TEES will pay up to half of the cost of travel to Washington, D.C., for an approved Assistant Professor. Please contact Dr. Z.J. Pei, TEES Director of Research Development, at <a href="mailto:ripei@tamu.edu">ripei@tamu.edu</a> for more information.



# **Student/Postdoctoral Opportunities**

CURRENT & FUTURE -

*NIST Summer Undergraduate Research Fellowship (SURF) NIST Boulder Programs* (<u>link</u>) – Application Due: February 14, 2021.

NINDS Ruth L. Kirschstein National Research Service Award (NRSA) for Training of Postdoctoral Fellows (F32 Clinical Trial Not Allowed) (link) – Full Due: February 11, 2021; June 9, 2021; October 14, 2021; February 9, 2022; June 8, 2022; October 11, 2022; February 9, 2023; June 8, 2023; October 10, 2023. Award: Fellowship will contribute to the combined cost of tuition and fees at the rate in place at the time of award.

Wallenberg Academy Fellows (link) - Application Due: February 15, 2021. Award: \$113,115 - \$509,021.

Gertrude M. Cox Scholarship (link) – Application Due: February 23, 2021. Award: Two scholarship recipients are selected each year: one to a woman in or entering the early stages of graduate training (MS or PhD) and one to a woman in a more advanced stage of training. Scholarship recipients receive a certificate and \$1,000.

*NASA University Student Research Challenge (USRC)* (link) – Cycle 2 Due: February 25, 2021. Cycle 3 Due: June 24, 2021. Award: Size of award subject to the availability of funds and quality of proposals.

Thornton Tomasetti Foundation Scholarships (link) – Application Deadline: February 26, 2021. Award: \$10,000. Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions with NIH-Funded Institutional Postdoctoral Dual-Degree Training Programs (Parent F30) (link) –Full Due: April 8, 2021 August 8, 2021; December 8, 2021. Award: Award budgets are composed of stipends, tuition and fees, and institutional allowance.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32) (link) –Full Due: April 8, 2021 August 8, 2021; December 8, 2021. Award: Award budgets are composed of stipends, tuition and fees, and institutional allowance.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31-Diversity) (link) –Full Due: April 8, 2021 August 8, 2021; December 8, 2021. Award: Award budgets are composed of stipends, tuition and fees, and institutional allowance. Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions without NIH-Funded Institutional Postdoctoral Dual-Degree Training Programs (Parent F30) (link) –Full Due: April 8, 2021 August 8, 2021; December 8, 2021. Award: Award budgets are composed of stipends, tuition and fees, and institutional allowance.

Air Force Science & Technology Fellowship Program: Laboratory (link) – Application Deadline (Yearly): May 1; August 1; and November 1. Award: \$76,542 stipend and benefits.

Air Force Science & Technology Fellowship Program: Technology (link) – Application Deadline (Yearly): May 1; August 1; and November 1. Award: \$76,542 stipend and benefits.

*Air Force Science & Technology Fellowship Program: Air Force Academy* (link) – Application Deadline (Yearly): May 1; August 1; and November 1. Award: \$76,542 stipend and benefits.

2021 FAA Challenge: Smart Airport Student Competition (link) – Full Due: June 6, 2021. Award: \$6,000 travel reimbursement for each finalist team, and \$25,000 for the winning team.

*Idaho National Laboratory Internship Program* (link) – Application Due: Varies based on program. Award: Interns are paid a nationally competitive wage based on the number of credits they have earned, and the degree program they are enrolled in. *For Undergraduate and Graduate Students.* 

*Idaho National Laboratory Postdoctoral Program* (<u>link</u>) – Application Due: Varies based on program. Award: Will vary based on position acquired.

*DHS Post-Graduate Research Scientists in Threat Detection Technology* (link) – Award: \$80,000. Based on academic level and experience, health insurance, and relocation allowance up to \$2000.

*Apple Scholars in AI/ML* (link) – Selected PhD students will receive support for their research and academic travel for two years, internship opportunities, and a two-year mentorship with an Apple researcher in their field. The PhD fellowship in AI/ML is currently open to invited institutions. For more information, please email aiml\_scholars@apple.com.

Sandia National Laboratories Internships (link) – Internships provide students: Opportunities to work on challenging projects at competitive pay, academic credits for some co-op and other internships, research mentoring from top scientists and engineers, training and practical work experience using state-of-the-art equipment and instruments. Multiple internship periods available, application due date dependent on dates of internship period. Inquire on Sandia job board for specific opportunities and dates.

Research Scientists in Threat Detection Technology (link) –Award: Stipend starting at \$80,000 based on your academic level and experience, health insurance allowance, relocation allowance up to \$2,000, if you are located more than 50 miles one way from the hosting facility. Appointments are for a year with the option to extend the appointment for additional years. Extensions are contingent upon project needs and funding availability. The maximum time a participant can remain in the ORISE program is five years from his/her initial start date.

DeBakey Executive Research Leadership Program (link) – This unique program trains junior faculty, postdocs and doctoral students to successfully lead a multifaceted high-end research operation, convey critical skills to lead, manage, and direct students and staff at all levels.

EPA Student Research Opportunities (link)



# Resources

- NSF Broader Impact Expo List of Resources (<u>link</u>)
- Facilities (<u>link</u>)
- Education/Broader Impacts Requirements (<u>link</u>)
- UIDP Conversations Podcast (link)
- Division of Research Presents: Meg Bouvier Medical Writing (<u>link</u>)

# TEES RESEARCH DEVELOPMENT - PROPOSAL DEVELOPMENT SERVICES -

- NSF CAREER workshops geared towards supporting junior faculty
- Graduate Research Fellowships support (NSF GRFP and DOD NDSEG)
- Award package support for professional societies

- Proofreading, editing, and rewriting to refine project narratives and summaries
- Graphics
- Quality check proposal packages for completion and compliance
- Format and update supplementary documents to have cohesive appearance on large proposals
- Develop checklists based on the solicitation
- Develop templates for supplementary documents and draft budget justification
- Serve as liaison between SRS and subcontractors

### **RESEARCH DEVELOPMENT TEAM**

Dr. Sharmila Pathikonda, Trevor Moran, Amber Mastrobattista, and Dr. Sindhu Jose **CONTACT US** 

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Prepared by TEES Research Development under the auspices of the Associate Agency Director for Strategic Initiatives and Centers. For questions, email <a href="mailto:proposalsupport@tamu.edu">proposalsupport@tamu.edu</a>.