

ISE NEWSLETTER

January 9, 2023

#### **Announcements**



## Summer 2023 Sustainability Graduate Research Fellowships

Co-sponsored by the <u>Graduate Education Office</u> and the <u>Institute for a Sustainable Earth</u>, the <u>2023 Sustainability Summer Fellowships for Graduate Research Partnerships program</u> provides financial support and professional development to graduate students who will work with partner organizations on applied research projects. Together, fellows and partner organizations will identify research and action priorities for the period of the fellowship, allowing students to gain valuable experience and organizational access. Participants in the Sustainability Summer Fellowship program will then be able to leverage this research partnership in their dissertation or master's thesis work. Fellow stipends of \$8,000 for doctoral students and \$6,000 for master's students will support this collaborative research. Interested graduate students should plan to attend an informational webinar about the program on Monday, January 30, 2023 from 5-6 pm, or on Wednesday, February 8 from 10-11 am.

In Summer 2023, Fellowships are available with the <u>American Bird Conservancy</u>, <u>Faith Alliance</u> <u>for Climate Solutions</u>, <u>Future Earth</u>, <u>Point Blue Conservation Science</u>, <u>Sierra Club of Virginia</u>, <u>the Upper Mattaponi Indian Tribe</u>, <u>the U.S. Department of Transportation: Office of the Secretary</u>, <u>Virginia Clinicians for Climate Action</u>, and the <u>Woodrow Wilson Center: Environmental Change</u>

and Security Program. Applications are due at the <u>ISE's Handshake Site</u> by Wed., February 15, 2023.





### Network Catalyst Grants

#### **Announcing the Network Catalyst Grants Competition**

Applications due Friday, Feb 17, 2023.

Informational Webinars: Thursday, January 26 2:00-3:00 pm and Monday, Feb 6 10:00-11:00 am

Grand challenges require an approach that is transdisciplinary and that broadly engages communities beyond the university. With the <a href="Network Catalyst Grants">Network Catalyst Grants</a>, the <a href="Institute for a Sustainable Earth">Institute for a Sustainable Earth</a> will support faculty teams who wish to engage external partners in applied research opportunities in the areas of sustainability science and resilience aligned with UN Sustainable Development Goals. Faculty teams will have funding and support services so that they may catalyze a network of collaborators within and beyond George Mason University, with the ultimate goal of developing novel research approaches and applications. Successful teams will be expected to work with ISE personnel to build a transdisciplinary community of research and practice that extends deeply into local, regional, or international communities. One key outcome of the grant period will be the development of an extramural funding strategy that will sustain network activities and support putting research into action.

#### **MITRE Capstones Project Portal**

As part of its University Innovation Exchange (UIX) initiative, MITRE is partnering with universities to offer technical advisors and capstone project ideas that reflect real problems facing the United States government. The **MITRE Capstones Project Portal** is a web-based platform for university faculty and students to browse, select, and execute capstone projects with a MITRE technical advisor. There are several exciting opportunities currently on the Project Portal. You can review the full list <a href="here">here</a>.

#### 25Live Guide – Feature Your Sustainability Events

The Office of University Events, the Institute for a Sustainable Earth, and the Office of Sustainability collaborated to develop this 25Live Guide to increase the visibility of and engagement with your sustainability-focused events at Mason. 25Live is Mason's institution-wide event and academic scheduling system which dovetails with unit calendars such as Today@Mason. Please use this 25Live Guide to ensure your sustainability-focused events, whether they are in-person or virtual, are featured on Today @ Mason and through ISE and the Office of Sustainability.

#### **ISE Faculty Profiles**

The <u>ISE faculty directory</u> is a tool for you to find others with complementing expertise and for external and internal audiences to find you! If you haven't yet submitted your research profile information for the directory, **please complete your profile** <u>here</u>.

#### **Upcoming Mason Events**

#### 3nd Annual Research and Scholarship at Mason

January 18, 2023, 9:00 am – 2:00 pm <u>Registration</u>

Sponsored by the <u>Office of Research, Innovation and Economic Impact</u>, the program is designed to help faculty become more familiar (or refresh their familiarity) with the grant lifecycle process at Mason and the resources available to assist faculty in obtaining external funding for their research, scholarship and creative work.

- Meet the Vice President for Research, Innovation and Economic Impact and his leadership team and learn about the Associate Deans for Research;
- Discover resources available from Research Services including the Office of Sponsored Programs and Office of Research Integrity and Assurance and the support these teams can provide;
- · Hear about University level Institutes and connect with their multidisciplinary teams;
- Find out more about the resource available through the Mason Libraries;
- Learn more about the resources available to provide opportunities to include undergraduate and graduate students in your research;
- Discover how faculty repurpose a non-funded proposal package;
- And more!

Registration is required:

https://gmu.zoom.us/meeting/register/tJEkduChpzsjGtJ9kZXmmwrn6UOqglgZaCEv

## Faculty Matters Workshop – Grant Seeking and Grant Writing 101

January 18, 2023, 3:00 am – 4:30 pm Registration

The <u>Office of Faculty Affairs and Development and Research Development Services</u> are cosponsoring the first <u>Faculty Matters Workshop Series</u> for Spring 2023, which focuses on helping faculty identify funding opportunities, explore general differences in funders and funding opportunities, and learn about key elements of successful proposals.

A separate registration is required for this meeting: <a href="https://gmu.zoom.us/meeting/register/tJEpcOuqpj4pEt1WUVLHqzX1ehxT-ssqATF4">https://gmu.zoom.us/meeting/register/tJEpcOuqpj4pEt1WUVLHqzX1ehxT-ssqATF4</a>

#### In the News

- Mason's youth and innovation attract world-class Al and robotics researcher,
   The George News, January 3, 2023.
- Mason collaboration receives \$3.2 million to help military personnel combat hemorrhagic diseases, Research News, January 4, 2023.
- <u>Dean's Blog: The Difference Makers: Resolution Zero Hunger</u>, College of Science News, December 14, 2022.
- Hive Minds: Multidisciplinary collaboration creates virtual reality STEM
   experience for elementary students, Business for a Better World Center News,
   December 12, 2022.
- Mason interdisciplinary team receives \$1.5 million grant from Department of <u>Defense to research underwater explosions</u>, Research News, December 12, 2022.

#### **Funding Opportunities**

#### **NEH: Cultural and Community Resilience**

Deadline: January 12, 2023

The <u>Cultural and Community Resilience program</u> supports community-based efforts to mitigate climate change and COVID-19 pandemic impacts, safeguard cultural resources, and foster cultural resilience through identifying, documenting, and/or collecting cultural heritage and community experience. The program prioritizes projects from disadvantaged communities in the United States or its jurisdictions, and NEH encourages applications that employ inclusive methodologies.

- Anticipated Funding Amount: \$150,000
- Contact: Division of Preservation and Access Team, <u>preservation@neh.gov</u>

#### **NSF: Security and Preparedness (SAP)**

Deadline: January 15, 2023

The <u>Security and Preparedness (SAP) program</u> supports basic scientific research that advances knowledge and understanding of issues broadly related to global and national security. Research proposals are evaluated on the criteria of intellectual merit and broader impacts; the proposed projects are expected to be theoretically motivated, conceptually precise, methodologically rigorous, and empirically oriented. Substantive areas include (but are not limited to) international relations, global and national security, human security, political violence, state stability, conflict

processes, regime transition, international and comparative political economy, and peace science. Moreover, the Program supports research experiences for undergraduate students and infrastructural activities, including methodological innovations.

• Contact: Paul Huth, Program Director, <a href="mailto:phuth@nsf.gov">phuth@nsf.gov</a>

## NSF: Security and Preparedness (SAP)DOE Centers for Climate Resilience

Pre-Application Deadline: January 19, 2023 at 5PM ET

The DOE SC program in Biological and Environmental Research (BER) hereby announces its interest in applications from the scientific community for Climate Resilience Centers (CRCs) that will improve the availability and utility of BER research, data, models, and capabilities to address climate resiliency, particularly by underrepresented or vulnerable communities. BER's mission is to support transformative science and scientific user facilities to achieve a predictive understanding of complex biological, Earth, and environmental systems for energy and infrastructure security, independence, and prosperity. BER research further advances the fundamental understanding of dynamic, physical, and biogeochemical processes required to systematically develop Earth system models that integrate across the atmosphere, land masses, oceans, sea ice, subsurface, and human systems. These science-based predictive tools and methods are critically needed to inform policies and plans for strengthening the security and resilience of critical infrastructure and natural resources.

• Submission Deadline for Applications: March 30, 2023 at 11:59 pm ET

## Designing Materials to Revolutionize and Engineer our Future (DMREF)

<u>DMREF</u> seeks to foster the design, discovery, and development of materials to accelerate their path to deployment by harnessing the power of data and computational tools in concert with experiment and theory. DMREF emphasizes a deep integration of experiments, computation, and theory; the use of accessible digital data across the materials development continuum; and strengthening connections among theorists, computational scientists (including data scientists), and experimentalists as well as those from academia, industry, and government. DMREF is committed to the education and training of a next-generation materials research and development (R&D) workforce that is diverse, equitable, and inclusive; well-equipped for successful careers as educators and innovators; and able to take full advantage of the materials development continuum and innovation infrastructures that NSF is creating with partners in other federal agencies

• Anticipated Type of Award: Standard Grant or Continuing Grant

• Estimated Number of Awards: 25

• Anticipated Funding Amount: \$45,000,000

## NSF Using the Rules of Life to Address Societal Challenges (URoL:ASC)

Wednesday, February 15, 2023

<u>Using the Rules of Life to Address Societal Challenges (URoL:ASC)</u> will support use-inspired research that builds on knowledge from previous investments in the NSF "Big Ideas", including in the Understanding the Rules of Life program. The Big Ideas were designed to position the Nation at the cutting edge of global science and engineering by bringing together diverse disciplinary perspectives to support convergent research (see details here). The goal of the Understanding the Rules of Life Big Idea was to develop predictive understanding of how key properties of living systems emerge from interactions of factors such as genomes, phenotypes, and evolving environments. Examples of projects that have examined some of these rules can be found here. Following from the fundamental principles revealed from these and related projects, an important goal of the current solicitation is to use the predictive capability of rules of life to address some of the greatest challenges we currently face as a society.

- Anticipated Type of Award: Standard Grant or Continuing Grant
- Estimated Number of Awards: 10 to 15
- Anticipated Funding Amount: \$28,000,000
   Estimated program budget, number of awards and average award size are subject to the availability of funds.

To learn more, click here.



## 20th Annual People, Prosperity and the Planet (P3) Now Open: P3 20th Annual RFA

February 1, 2023 Registration

**EPA's People, Prosperity, and the Planet's (P3) Program** is seeking applications from teams of U.S. college students proposing to research, develop, and design solutions to real-world challenges that respond to the needs of people across the U.S, including those in small, rural, tribal, and underserved communities. P3 highlights the use of scientific principles in creating innovative technology-based projects that achieve the mutual goals of improved quality of life, economic prosperity and environmental protection.

Using a team approach, P3 empowers undergraduate/graduate college students to transform classroom learning through hands-on experience to create tangible solutions to environmental issues in their communities.

EPA is looking for research in the areas of clean and healthy air, clean and safe water, safeguarding and revitalizing communities, and ensuring the safety of chemicals.

Applications may incorporate climate change and environmental justice as appropriate.

Please visit the <u>P3 webpage</u> for more information.

#### **Student Opportunities**

#### **EnergyTech University Prize 2022-2023 Competition**

Students interested in learning about cutting-edge clean energy tech, take note: The next round of the **EnergyTech University Prize** (**EnergyTech UP**) from the U.S. Department of Energy's Office of Technology Transitions is now accepting applications!

This innovative prize, part of the American-Made Challenges program, asks multidisciplinary student teams to identify a high-potential energy technology, assess its market potential, and propose a strategy for commercialization—and compete for a share of \$370,000!

The competition offers students the opportunity to build their leadership and entrepreneurial skills, while providing exposure to all of the innovative energy technologies out there waiting to be commercialized. EnergyTech UP is truly a career-building experience unlike any other.

Last year, the competition welcomed more than 500 competing students from 113 schools—who had great things to say about their experience. "The prize really gives people who aren't specialized in engineering or scientific topics a chance to make an impact and learn more about sustainability," said one competitor. "I learned how to take an idea and turn it into a vision that could actually happen," said another.

Any interested students or faculty are encouraged to start following <u>EnergyTech UP</u> now. It's the best way to stay up to date on submission deadlines and requirements, prize rules, and more.

# COMPOSTING FELLOWSHIP PROGRAM

Eliminate food waste & revitalize the earth's soil through clean and convenient solutions!

Get trained by an MDA Certified Compost Facility Operator

Gain hands-on experience during on-farm composting operations

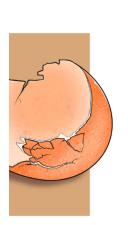
Collaborate on a peer-designed research project

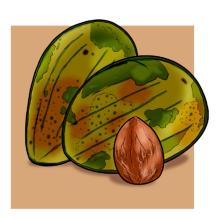
Study the science of composting

Tour large-scale composting facilities

Receive a database of upcoming events and learning opportunities in the compost industry

AND MORE!









## APPLY **NOW**



#### **Global Sustainability Scholars**

The <u>Global Sustainability Scholars</u> (GSS) application process is **now open** and will accept applications through **January 15, 2023**.

The online application can be found at: <a href="https://www.gsscholar.org/apply">https://www.gsscholar.org/apply</a>.

The Global Sustainability Scholars program brings together talented undergraduates and graduates for a paid summer immersive experience, where students travel abroad, conduct research, and build their professional network in real-world sustainability issues. GSS is focused on diversifying the field of sustainability researchers and practitioners.

VISIT COMPOSTCREW.COM/CAREERS TO APPLY

The GSS Scholars Program offers students a two-year summer experience. During the two summers students will travel abroad (while locations are yet to be determined, they will likely consist in European countries), students will learn about sustainability issues and conduct research, and they will build their professional network. GSS will cover round-trip airfare to the host site and home, lodging, and a stipend for students.

The GSS Fellows Program offers a 10-week paid immersive training and mentoring with a global sustainability organization. Fellows will gain professional work experience, receive professional mentorship and professional development training, and build an international professional network in sustainability science

For more information about eligibility, 2023 summer projects, and the network check out the <u>website</u>!



## Planet Forward's 9th Annual Storyfest Competition is Now Open

Deadline: February 6, 2023, at 11:59 p.m. EST

Registration

WASHINGTON, D.C. (Oct. 14, 2022) — Planet Forward, an environmental storytelling platform based at the School of Media and Public Affairs at George Washington University, is pleased to announce the launch of Storyfest 2023, our ninth annual competition rewarding the best environmental storytelling by college students, and our fifth sponsored by partner Lindblad Expeditions.

Winners will travel to Iceland for a six-day voyage with Lindblad Expeditions aboard the National Geographic Resolution in July 2023, with a team of naturalists, photo instructor, and an expedition leader. Our Planet Forward storytellers will explore remote fjords and volcanic isles, while learning how Iceland is fighting water pollution and soil erosion, and of the potential impact of development pressures from tourism and energy production on wilderness areas. "We are thrilled beyond measure to continue our partnership with Lindblad Expeditions for our Storyfest competition," said Frank Sesno, Director of Strategic Initiatives for the School of Media and Public Affairs at GW and Planet Forward Founding Director.

The grand prize will be announced live at the 2023 Planet Forward Summit on April 20, 2023. Students can enter up to three stories in five categories — best science narrative, most

compelling character, most creative story, best use of science or data, and best scalable innovation — now through Monday, February 6, 2023, at 11:59 p.m. EST. You can see the complete rules and more information on <u>PlanetForward.org</u>.

The Institute for a Sustainable Earth (ISE) aims to connect members of the Mason community with others across the Mason community—and with other communities, policy-makers, businesses and organizations—so that, together, we can more effectively address the world's pressing sustainability and resilience challenges.

<u>The ISE Newsletter</u> provides up-to-date information on conferences, funding opportunities, and research pertaining to environmental science and sustainability. The biweekly newsletter aims to facilitate information sharing among researchers, practitioners, and relevant local, national, and international organization.



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