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Research and Discovery News

Research and Innovation

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## Research and Innovation, April 2019

Office of Vice President for Research

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# Research and Innovation April 2019 Digital Newsletter

## **April 16 Discovery Acceleration Workshop**

Join us at the next Discovery Acceleration Workshop on "Building Partnerships with Industry: Grants, Contracts and the Road toward Commercialization." Industry partners can help you enhance your discovery efforts. This workshop is designed to help you gain insight into how to work with industry partners and hear about the resources available at WMU to help you develop partnerships and the necessary agreements. This workshop is scheduled for Tuesday, April 16, from noon to 2 p.m. in the Fetzer Center, Room 1055. Learn [more](#) about the workshop and [register](#).

## **Update on the NSF 2026 Big Idea Machine Competition**

The [NSF 2026 Idea Machine](#) competition was designed to help set the U.S. agenda for basic research in science and engineering by entertaining submissions from scholars and students across the country. Individuals who submitted imaginative and pressing research questions to the competition stand to receive public recognition and prizes.

To encourage Broncos to submit their big ideas to the NSF, OVPR created the Big Bronco Idea @WMU initiative to run concurrent with the NSF competition. This effort was successful, in that of the 800 entries submitted to the NSF, 3 of the 30 finalists invited to submit video pitches are WMU faculty and administrators. They are:

- The STEM Teaching and Learning Incubator, [Todd Ellis](#)
- Reversibility: Future of Life on Earth, [Bilinda Straight](#)
- #WhyNotMe: STEM Diversity Drivers, [Terri Goss Kinzy](#) and [Lori Wingate](#)

You can view their videos and comment on them in preparation for the NSF's judging of the final stage of the competition. We will link to the videos from our homepage once they go live.

The internal **Bronco Big Idea** winners were selected by a committee of junior faculty and graduate students, who are the future of STEM. The winners were Todd Ellis (faculty), who will receive a \$6,000 research award; and two undergraduate students, Patrick Leny and Marsad

Zoardar, who each will receive a \$1,000 scholarship, and an additional \$5,000 award to conduct research. To be eligible to win in the WMU competition, individuals had to submit their ideas both to the NSF 2026 Big Idea Machine **and** to the internal Bronco Big Idea competition.

Congratulations to all winners!

### **ScholarWorks for Research**

ScholarWorks, WMU's institutional repository, is a valuable tool for research and creative work. Its content includes historical and current WMU publications as well as showcases the work and scholarly output of our faculty, staff and students. ScholarWorks' 33,000+ items have been downloaded over 7 million times, and provide an open way to share the research with the campus community. Please contact [Maira Bundza](#) with questions, or for assistance as to how to deposit materials for publication, or with suggestions for new content.

### **NASA L'SPACE Academy**

Stephanie Buglione is a geochemistry student, in the Geological and Environmental Sciences department, who was accepted this spring into the L'SPACE Level 1 Academy. L'SPACE, the Lucy Student Pipeline Accelerator and Competency Enabler program, is designed to help students gain greater insight and skills into NASA mission protocols, procedures and practices while working with an interdisciplinary team of students passionate about science and engineering. Buglione is the deputy project manager for Team 13 and the only non-engineer on the team, whose purpose is to design a probe to be dropped from the orbit of Mars that is capable of quantifying 100 metric tons of water.

### **Congratulations on Recent Research and Creative Activity Endeavors**

- [Bill Davis](#) has an exhibition, **No Dark in Sight**, at the Richmond Center for Visual Art, scheduled April 4 (opening night) through 28. The exhibition examines light pollution in Kalamazoo, Las Vegas, and Machu Picchu in Peru. View [Portfolio](#)
- J. McMahon, [R.S.W. Emerson](#), P. Ponchillia, & [A. Curtis](#) (2019). Physical Performance of Participants of Sports Education Camps for Children with Visual Impairments. *Journal of Visual Impairment & Blindness*, 113(1), 32–42. <https://doi.org/10.1177/0145482X18818613>
- E. Calvo-Ochoa and C. A. Byrd-Jacobs (2019). The Olfactory System of Zebrafish as a Model for the Study of Neurotoxicity and Injury: Implications for Neuroplasticity and Disease. *International Journal of Molecular Sciences*, 20(7), 1639; <https://doi.org/10.3390/ijms20071639>

- [B. Straight](#), B.L. Needham, & G. Onicescu et al. (2019). Prosocial Emotion, Adolescence, and Warfare: DNA Methylation Associates with Culturally Salient Combat Variables. Human Nature, <https://doi.org/10.1007/s12110-019-09344-6>

### **Student Opportunity Center**

The Undergraduate Research Program, part of the Office of the Vice President for Research, is home to the [Student Opportunity Center](#). The SOC gives students access to over 8,000 research and creative opportunities, across the country and right here on campus, including conferences, research opportunities, journals for publishing student work, and other funding opportunities. Students currently registered at WMU may create a free account using their student wmich.edu email. This is a great resource; we encourage you to share it with your students.

### **Global Expertise Database**

The Haenicke Institute for Global Education has a tool, the [Global Expertise Database](#), that captures the rich global knowledge of faculty members and professional staff at WMU. The database is searchable for areas of expertise, countries and territories of expertise, regions of expertise, and languages. This tool allows you to connect your expertise with individuals around the world. HIGE invites WMU community members to complete their profile.

### **Spotlight on Undergraduate Research**

This month's spotlight is focused on Julio Zuarth Gonzalez, an undergraduate psychology student interested in behavioral neuroscience. Julio will graduate this month with a B.S. in psychology, with minors in data analysis, biological sciences, and global studies.

After taking two psychology courses with Dr. Lisa Baker, one of which was a Behavioral Neuroscience Research Practicum course, Julio volunteered with Dr. Baker as an undergraduate research assistant in her behavioral pharmacology research laboratory. "I am fascinated by the brain reward systems, neuroplasticity and how these interact," he says.

In his practicum class, he worked closely with a team of students to implement a major research project related to Baker's current NIH-funded AREA grant. Since then, he has continued as a volunteer research assistant in her lab.

Baker has this to say about Julio's work: "His consistent and reliable commitment to this work has been an invaluable contribution to my laboratory's research productivity this semester. Julio played a key leadership role on two grant-funded projects in my lab, and he will be co-author on

two manuscripts based on this research."

Julio has been admitted to the MA program in Behavior Analysis at WMU.

### **Upcoming events**

- The WMed Research Day is April 16-17. For more information, please contact WMed at [researchday@med.wmich.edu](mailto:researchday@med.wmich.edu).
- The Transportation Research Center's 6th Annual Summer Conference on Livable Communities: Smart Mobility Toward Building Livable Communities is June 6-7, 2019.