Mason Science mentors foster an audacious, questioning mindset

by Fernando Miralles-Wilhelm

As one of the largest contributors to George Mason University’s R1 status, our College of Science maintains a strong focus on impactful research experiences by cultivating a questioning mindset throughout all levels of learning.

Some may view a person who asks many questions as overly curious or perhaps even a troublemaker (Why ask so many questions?). However, we think such a characteristic is essential for a scientific researcher to tackle some of the huge, bold problems currently facing STEM, society, and our global community. As such, the College of Science at George Mason University has created programs and opportunities designed to foster our students’ scientific curiosity and exploration.

Between now and the end of the semester, we have several opportunities to celebrate our student researchers, the educators who nominate and nurture them, as well as the mentors who guide them. Last week, we kicked off our end of semester research celebration with the College’s eleventh annual
In events like this, we encourage our scientific community to attend and, you guessed it, ask questions about their research. From their research methods, their findings and what surprised them, gaps found in the scientific literature related to their topic, to challenges they faced along the way and how future studies might build on their results, we continue to challenge our young scientists along their paths to discovery.

Mason scientist recognized for climate research contributions and philanthropy

by Laura Powers

More than 90 guests gathered April 22 to celebrate the achievements of College of Science Professor Dr. Jagadish Shukla. Considered a trailblazer in the Mason community, Shukla’s esteemed career spans the globe, from establishing the Center for Ocean-Land-Atmosphere Studies (COLA) and modernizing India’s weather enterprise to serving as lead author of the 2007 report of the Intergovernmental Panel on Climate change that shared the Nobel Peace Prize with Vice President Al Gore. Photo by Max Taylor Photography.

Mason students, alumna awarded prestigious NSF fellowships

George Mason University recently continued its streak of students winning one of the most prestigious fellowships in the country. The 2022 recipients of the NSF GRFP are Michael Anthony Reefe, senior in physics and astronomy; Jordan Alexandra Sims, master’s student in life sciences, environmental biology; and alumna Jessie Elizabeth Greenslade, who graduated from Mason with a BS in neuroscience in 2017 and is now a master’s student at the University of Pennsylvania. Madeleine Anne Becker, master’s student in life sciences, evolutionary biology, was selected for an honorable mention. Photo by Evan Cantwell/Creative Services.
#FacultyFriday highlights biology assistant professor

This week's #FacultyFriday features Daniel Hanley, Assistant Professor, Biology. Hanley has found a rich array of untapped questions relating to color perception and decision-making. Consequently, he leads the Hanley Color Lab, studying the function and evolution of natural colors. Specifically, the lab uses avian brood parasitism as a model system for experimentally testing decision-making in wild, untrained animals. If you want to talk birds, stop by his office at the SciTech campus.

View Hanley's bio

Mason to work with corporate partners on the K12 Quantum Workforce Development Project

by John Hollis

The K12 Quantum Workforce Development Project, which is run by Mason’s Quantum Science and Engineering Center and directed by Associate Professor of Physics and Astronomy Jessica L. Rosenberg, accounted for $650,000 of the $3.5 trillion House Appropriations Bill and will serve as the pilot for a quantum physics curriculum in public schools in Fairfax and Loudoun counties. The aim of the program is to inspire the next generation of students to pursue the field while simultaneously preparing a diverse quantum workforce in Northern Virginia. Photo by Evan Cantwell/Creative Services.
Mason scientist studies methods for detection of bacteria and outer membrane vesicles

*by Elizabeth Grisham*

Ramin Hakami, Associate Professor, *School of Systems Biology* and *Center for Infectious Disease Research* (CIDR), is conducting research to test the efficiency and sensitivity of an immunodetection method for analyzing the presence of bacteria and outer membrane vesicles (OMVs) in various samples, including food samples.

**IN THE NEWS**

**Study finds thousands of nursing home workers remain unvaccinated**

*by Emily Hopkins and Andrea Suozzo*

In more than a dozen nursing home facilities, a third to a half of the staff members have said they have a medical reason to forgo getting vaccinated. These clusters are giving scientists pause, according to Timothy Leslie, Associate Professor, *Geography and Geoinformation Science*. “That suggests some level of organization to achieve that outcome,” he said. *Photo by Dominik Lange on Unsplash.*

**COVID-19 antibody measurement technology assesses virus blocking efficacy**

*by News Editor*

*Health Tech News* recently reported the development of the hybrid alphavirus-SARS-CoV-2 pseudovirus system that can robustly express reporter genes in cells within hours to rapidly measure neutralizing antibodies. This research is conducted by the cross-disciplinary team coordinated by scientists at Mason’s *Center for Infectious Disease Research* (CIDR).
Exercise is Medicine honors Mason for creating a well-being culture

George Mason University earned a silver-level designation from Exercise is Medicine-On Campus (EIM-OC) for its commitment to health and wellness. Mason is one of 156 universities and colleges around the world to be honored by Exercise is Medicine® for its efforts to create a well-being culture on campus. The silver rating highlights campuses that engage students, faculty, and staff in education initiatives and make movement part of the daily campus culture. Photo by Shelby Burgess/Strategic Communications.

Anti-Racism and Inclusive Excellence Task Force funding announcement

The Office of Research Innovation and Economic Impact (ORIEI) in collaboration with the AntiRacism and Inclusive Excellence (ARIE) Task Force is excited to announce the first annual ARIE Seed Funding Initiative. The ARIE Seed Funding initiative emerged as one of the recommendations from the ARIE Research Working Group and funded by the ARIE Task Force. This funding will support research, scholarship and creative activities addressing the myriad issues on the theme of anti-racism and inclusive excellence. Projects may be either highly scholarly or highly practical/applicable.

- Proposal Due Date: June 30, 2022
- Funding Decisions: August 15, 2022
- Funding Limit: Two tiers: Up to $25,000 and Up to $50,000
- Duration: 12-18 Months

ORIEI will be holding an Informational Q&A on Wednesday, May 18, 2022, noon to 1:30 p.m. ET. Send any questions you have in advance to resdev@gmu.edu.
2022 Environmental Science and Policy Department Awards
May 18, 2022 | 11 a.m. to noon
Please contact espug@gmu.edu for Zoom information if you would like to attend.

School of Systems Biology Awards Ceremony
May 18, 2022 | 11 a.m. to 12:30 p.m. | Virtual
The School of Systems Biology invites SSB faculty to celebrate the outstanding student accomplishments in the 2021-2022 academic year. Reach out to the department for access details.

Thomas Lovejoy Symposium
May 19, 2022 | 9 a.m. to 5 p.m. | Fairfax Campus
Join us for a symposium honoring Thomas Lovejoy, hosted by George Mason President Gregory Washington and Smithsonian Under Secretary for Science and Research Ellen Stofan.

College of Science Degree Celebration 2022
May 21, 2022 | 10 a.m. | Eagle Bank Arena
Join us for this year's spring Degree Celebration and celebrate the accomplishments of the class of 2022. Register to attend.