

# Consortium Connections

*Connecting campuses to promote excellence in science and mathematics*

January 2025

Founded by the Pew Charitable Trusts in 1988

Vol. 18 No. 1

## Mark your calendar for upcoming events:

- March 31, 2025: Janet Andersen Award nominations due
- April 25-26, 2025: Executive Board Meeting
- July 11-13, 2025: Workshop for Early Career Success. Application due June 8, 2025
- Oct. 31-Nov. 1, 2025: Biological Sciences and Psychology Undergraduate Research Symposium at Washington University in St. Louis. Applications due Sept. 24, 2025
- Nov. 7-8, 2025: Physical Sciences, Mathematics and Computer Science Undergraduate Research Symposium at the University of Chicago. Applications due Sept. 24, 2025
- Summer 2026: The Midcareer Faculty Workshop

## Director's Comments

Energy and enthusiasm for science were on display at both Undergraduate Research Symposia. Students were eager to discuss their research accomplishments. They also supported peers and demonstrated curiosity in other peers' research.

In evaluations, students universally said they would recommend the symposium to peers. They also enjoyed talking about their research with faculty and students from Consortium institutions. Most students reported that they learned something new, and many said the symposium generated excitement about their careers, whether it was as a research scientist or synthesizing others' research.

While the number of people participating do not tell individual stories, they help us understand the impact. Both symposia filled. About one-fourth of Consortium institutions turned down applicants while other schools sent extra students by dipping into their alternative funding.

	Biological & Psychological Sciences URS	Physical Sciences, Math & Comp Sci URS
<b>Oral presentations</b>	29	23
<b>Posters</b>	72	77
<b>Faculty</b>	14	17
<b>Total</b>	115	117

Events for the **Biological and Psychological Sciences URS** kicked off on Friday, November 1, 2024 when graduate students from the University of Chicago answered questions related to application processes, identifying their research advisors and life in graduate school. Dinner at the Gordon Center for Integrated Sciences was sandwiched between the keynote address by Professor Nicholas Hatsopoulos from the University of Chicago and the Janet Andersen Award Lecture by Professor Shane Henschel from Colorado College. Dr. Nicholas Hatsopoulos' talk, *Wired Minds: The Age of Brain-Computer Interaction*, elicited many questions from the students about the ways in which individuals with paralysis may regain limb functionality with brain-embedded microchips. One study discussed feedback loops with kinesthetic robots who provide tactile information to the brain. A second study examined how electrical stimulation of somatosensory cortex (S1) can deliver artificial tactile feedback.



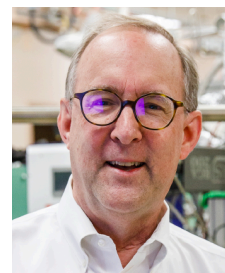
After dinner, the Janet Andersen Award winner, Dr. Henschel, highlighted the effects of light and drought stress on fitness of invasive *Tamarix* in Southwest riparian systems. Understanding how these ecophysiological traits alter *Tamarix* persistence can assist with the management. Throughout his talk, Shane emphasized the contributions of Colorado College undergraduates (and son!) over the past 18 years, both with the *Tamarix* experiments and those examining drought-response plasticity for model species like *Impatiens capensis* and *Arabidopsis thaliana*.



*Biologists and Psychologists at the University of Chicago*

Attendees had the opportunity to listen to student presentations at up to four concurrent oral sessions in the morning and three in the afternoon. Three poster sessions scheduled during the day were filled with attendees who circulated to learn more from the posters and presenters.

Events for the **Physical Sciences, Mathematics and Computer Sciences URS** began on Friday, November 15, 2024 in the Grand Ballroom at the Clayton Hotel. Dr. Mark Allendorf gave the keynote address. In his talk, *The Power of Empty Space: Adventures in the Nanoscience of Metal-Organic Frameworks*, he discussed the importance of curiosity in basic chemistry research and the applications of nanoporous metal-organic frameworks (MOFs) for military and industrial purposes. He illustrated these points using his experiences at Sandia National Lab and by explaining how MOFs can be used in sensing or energy storage.



Dr. Ken Brown from Hope College gave the Janet Anderson Award Lecture after dinner. He described how his military service and university experience gave him perspectives about the value of collaboration. His talk, *Changing Perspectives in Analytical Chemistry*, also discussed how his analytical chemistry research has evolved to become interdisciplinary and contributed to environmental justice endeavors. During the symposium he serendipitously encountered a former undergraduate research student, currently at Washington University, and he reflected on the satisfaction that comes from the full-circle nature of faculty-student mentorships.



*Physical and Computer Scientists and Mathematicians Washington University in St. Louis*

Attendees had the opportunity to listen to student presentations at up to four concurrent oral sessions in the morning and three in the afternoon. Three poster sessions scheduled during the day were filled with attendees who circulated to learn more from the posters and presenters.

The programs for both Undergraduate Research Symposium, including the abstracts for the presentations, are posted on the Midstates website at [mathsciconsortium.org](http://mathsciconsortium.org).

## **Funding for Speakers and Short Term Collaborations**

Are you looking for money to support a seminar speaker or your collaborative work with someone at a Midstates Consortium institution? If so we have two programs for you:

Speakers Series: The Speakers Series facilitates the exchange of ideas between members of the consortium. Consortium funds are available to pay for travel, lodging and meals. We have sponsored three speakers at Grinnell and Hope Colleges in 2024 and 2025. Depending on the cost, Midstates could sponsor a fourth speaker this spring.

Short-Term Collaborations (STC) encourage and support collaborations involving individuals at different consortium campuses. To date, we have not received any applications for STC for the 2024-25 academic year. Funds are available for, but not limited to, consultation on curriculum, research collaboration, participation as an outside examiner in a senior thesis exam, demonstration of a laboratory technique for an undergraduate laboratory, advising on proposal and project assessment, or the use of laboratory equipment.

Please search Consortium schools websites for speakers or potential collaborators. The applications for the programs are short and simple, and available at [mathsciconsortium.org](http://mathsciconsortium.org).

## **UPCOMING EVENTS**

### **Nominations for the 2025 Janet Andersen Award Lecture**

Nominations for the 2025 Janet Andersen Lecture Award are due March 31, 2025. A nomination should include the nominee's CV and a letter outlining the nominee's achievements in mentoring research students and in teaching. Please send the nomination by email to the Midstates director, Pamela Kittelson ([midstatesdirector@gmail.com](mailto:midstatesdirector@gmail.com)). Nominees from the Consortium are selected by the Executive Committee to present the Janet Andersen Award Lecture at the fall Undergraduate Research Symposia on a topic of his or her expertise.

Professor Janet Andersen was a beloved Hope College faculty member in the Mathematics Department and served as the Midstates Consortium Director for five years before her life ended tragically in an automobile accident in 2005. As a teacher and scholar, Janet was devoted to providing creative, high quality learning experiences for her students, and she was always learning as she was teaching. As Consortium Director, she looked for ways to connect with and support natural science faculty, both new and experienced. To honor Janet's work in her teaching, research and service the Janet Andersen Lecture Award was established in 2008.



### **Executive Board Meeting**

The Midstates executive committee, composed of campus representatives from each school, is scheduled to meet on April 25-26, 2025. An online option is available for those who are not able to attend in person. The Committee will review the programs for the year, including the budget, as well as the longer-term future of the consortium. The Janet Andersen Lecture awardees are

chosen for the next undergraduate research symposia. This year we will gather at a hotel close to the Minneapolis-St. Paul Airport. The meeting will begin with a social/dinner on Friday, April 25. The business meeting will start on Saturday, April 26 and conclude by 3:00 pm.

### **Early Career Workshop**

The Consortium is hosting a professional development workshop for early career academics affiliated with Consortium schools. The workshop will be held at Gustavus Adolphus College July 11-13, 2025. The workshop leaders, Drs. Scott Bur from Gustavus and Scott Snyder from the University of Chicago, are planning to co-facilitate the workshop. Both are organic chemists.

Participants generate a strategic action plan for the next 2-3 years of their career. To create their flexible, individualized plan, attendees reflect on goals related to teaching, establishing a research agenda and weighing ways to contribute to a liberal arts setting. Plans also consider work-life balance. Ample time will be given to developing and refining potential strategies and actions. Participants also benefit from listening to and giving feedback to colleagues about their plans. Interdisciplinary and inter-Consortium networking are added benefits of the workshop.



There is no cost. Open to faculty completing their first or second year, newly hired tenure-track or term appointment faculty, postdocs and advanced graduate students interested in working at liberal arts colleges in the physical and biological sciences, mathematics, computer science and psychology. Application due June 8. Complete

description and application at [mathsciconsortium.org](http://mathsciconsortium.org).

### **Undergraduate Research Symposia**

The Biological Sciences and Psychology Symposium is scheduled for Oct. 31-Nov. 1, 2025 at Washington University in St. Louis. The application will be available on the Consortium website ([mathsciconsortium.org](http://mathsciconsortium.org)) starting on July 1. The deadline for all campuses, except the University of Chicago, is Sept. 24 by midnight; UChicago students have until midnight on Oct. 5.

The Physical Sciences, Mathematics and Computer Science Symposium is set for Nov. 7-8, 2025 at the University of Chicago. The application will be available on the Consortium website ([mathsciconsortium.org](http://mathsciconsortium.org)) on July 1. The deadline for all campuses, except the University of Chicago, is Sept 24 by midnight; UChicago students have until midnight on Oct. 5.

**The Midcareer Faculty Workshop** is planned for summer 2026 at Gustavus Adolphus College.