

# Consortium Connections

*Connecting campuses to promote excellence in science and mathematics*

January 2024

Founded by the Pew Charitable Trusts in 1988

Vol. 17 No. 1

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**Mark your calendar for upcoming events** (see Upcoming Events section below for further details)

- March 31, 2024: Janet Andersen Award nominations due
- April 26-27, 2024: Executive Board Meeting
- July 12-14, 2024: Workshop for Early Career Success
- November 1-2, 2024: Biological Sciences and Psychology Undergraduate Research Symposium at the University of Chicago
- November 15-16, 2024: Physical Sciences, Mathematics and Computer Science Undergraduate Research Symposium at Washington University in St. Louis

## COMMENTS FROM THE DIRECTOR



This will be my last “Comments” as director. I told the executive committee when I interviewed for the position that I intended to serve a four-year term and retire the year I turned 70. Thus, I will be stepping down at the end of this fiscal year. The executive committee has hired a great replacement in Pamela Kittelson of Gustavus Adolphus College, who has a strong commitment to the consortium. Thus, we are in excellent hands for the future. Hiring Pamela also means that the consortium offices will be moving from Hope College, where it has been for eight years, to Gustavus Adolphus College. Ann and I expect to work with both Gustavus Adolphus and Pamela over the next few months to make the transition both smooth and successful. There is more about Dr.

Kittelson later in the newsletter.

As I look over the past three and a half years I am struck by how different they were from my expectations. I initially planned to visit every one of the Midstates schools during my first few months as director. In fact, we budgeted money for that purpose. Then Covid hit several months before I took over the job. During my first two years as director, we were focused on adjusting to the pandemic, a situation that many students and faculty can certainly appreciate. We cancelled all in-person live events replacing many of them with virtual meetings. Especially challenging was learning how to organize and run virtual undergraduate research symposia. Both our business meetings and our early career faculty workshop also went virtual. Instead of visiting campuses, we met via zoom with selected faculty from our member institutions to discuss the mission and future of the consortium. These conversations resulted in excellent suggestions that we incorporated into reports to the executive committee. One of the main thrusts of these reports was the need to update and redesign the Midstates website, a task which we took up in 2022.

The last year and a half has been dominated by our return to in-person meetings. This proved to be more of an adjustment than we expected. This was especially true this year when we had record attendance at our undergraduate research symposia. There are more on these further on in the newsletter. Although challenging, the return to live meetings was also exhilarating. I have been inspired by the young scientists that I met at the meetings. Their enthusiasm, their ability, and the quality of their research is astounding. As I leave the director's position I take a lot of satisfaction in knowing that with this new generation the future of science looks very bright.

Two very important in-person programs have not yet recovered from the COVID shutdown. Our Speakers Program provides funds to support visits by speakers from Midstates schools to give talks at other Midwest schools. Our Short-term Collaborations program helps support collaborations between faculty at different Midstates schools. Both programs were under-utilized before 2020, were suspended during the pandemic, and have barely been used since we returned to in-person programming in 2022. **There is money available** if you want to invite a speaker or would like support for initiating or continuing a collaboration with someone at another Midstates school. Instructions on how to apply for these programs are given at the end of this newsletter.

As the directorship moves from Hope College to Gustavus Adolphus College I want to thank Hope College for the support to Midstates over the last eight years. This support included office space for both the director and the administrative assistant. However, it went far beyond that. The Hope College business office managed our financial business including sending out invoices, paying bills, payroll, and managing our carryover funds. The college gave us full access to all its other support services. Especially helpful was all the support given us by the computer and information technology office, which among other things, loaned us the equipment needed to run our hybrid business meetings.



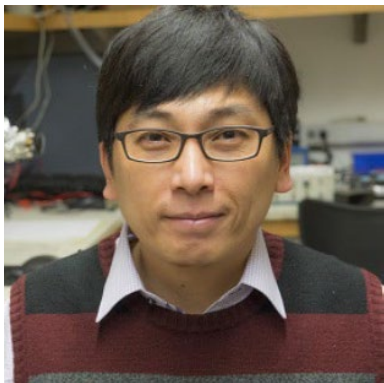
Last, but certainly not least, Ann Schutt, the administrative assistant of Midstates Consortium will also be retiring in June. Ann has been the administrative assistant for the last eight years. She is responsible for most of the day-to-day activities that keep the consortium running. All the work that goes into the travel arrangements, lodging, and room arrangements for the various programs, including the undergraduate research seminars and the faculty development programs has been done by Ann. She has also served as the institutional memory of the consortium. She has a strong interest in and commitment to Midstates, among other things she participated in the discussions with faculty members on the future of the consortium. She combines a painstaking attention to detail with a clear vision of the larger picture. She has been the administrative assistant extraordinaire and in many ways has served as co-director of the consortium. Thank you Ann for your eight years of service and critical contributions to the consortium.

Ed Hansen  
Director of the Midstates Consortium for Math and Science

## Physical Sciences, Mathematics and Computer Science Undergraduate Research Symposium at the University of Chicago, November 3 and 4, 2023



*Group photograph taken after the Janet Andersen lecture on Friday November 3*



*Dr. Cheng Chen*

From Friday evening through Saturday afternoon 120 students and 15 faculty members gathered at the University of Chicago to share their research at the 2023 Midstates Physical Sciences, Mathematics and Computer Science Undergraduate Research Symposium. In the afternoon before the symposium students had the option of attending the Graduate School Exploration Seminar Students put on by the University of Chicago. The symposium began with the keynote address “The Thrill of Discovery in a Science Lab” by Dr. Cheng Chen, Professor in the Department of Physics at the University of Chicago. In part of his address, Dr. Chen described insights he had gained on the



nature of scientific discovery from conversations with prominent scientists. However, he also emphasized discoveries made in his lab by post-docs and students. These stories emphasized the importance of serendipity and freedom to explore in scientific discovery.



*Dr. Amy Dounay*

The Keynote address was followed up by the 2023 Janet Andersen Lecture “New Drugs for Bad Bugs: Discovering Medicines for Neglected Diseases” given by Dr. Amy Dounay, Associate Professor of Chemistry and Biochemistry at Colorado College. In her lecture Dr. Dounay described the work she and her students carry out on the design and synthesis of new molecules with the potential to treat Human African Trypanosomiasis and *Pseudomonas aeruginosa* infection. These are among the tropical diseases and antibiotic resistant infections that have been largely ignored by the large pharmaceutical and biotechnology companies. During her talk Dr. Dounay outlined different strategies she uses to engage undergraduates in multi-site collaborative research projects.

Following the Janet Andersen lecture we gathered in the Atrium of the Gordon Center for Integrative Science for the opening banquet.

Saturday morning began with a poster session in which a total of 30 students presented 25 research posters. This was followed by the first set of oral presentations in which 21 students gave 19 talks in four concurrent sessions. After a lunch break we reconvened for the second poster session in which a total of 28 students presented 25 research posters. The next event was oral session 2 during which 19 students gave talks in 4 concurrent sessions. The symposium ended with poster session 3 which had 23 research posters and 26 student presenters. As one student, Joey Fogt from Hope College, summarized the experience: "At Midstates I was able to connect with those who are applying the same principles I study in my research. My work probed the properties of superconducting crystal lattices, and I met another student who was studying ways to fabricate these crystals better. It energized me to see all of the ways that students like me can have a tangible impact on the world, moving us all forward, despite how pointless it can feel on an early morning in the lab."

The entire schedule of the meeting, including the abstracts for the presentations, is posted on the Midstates website at [mathsciconsortium.org](http://mathsciconsortium.org).

## Biological Sciences and Psychology Undergraduate Research Symposium at Washington University in St. Louis, Nov. 10-11, 2023



*Group photo taken after the banquet, November 10, 2023*

A total of 129 students and 17 faculty took part in this symposium of undergraduate research in the Biological Sciences and Psychology at Washington University in St. Louis. This is the largest Biological Sciences and Psychology, in-person, undergraduate research symposium in the last 12 years and may be the largest ever!



*Dr. Pamela Woodard*

All activities took place at the Eric P. Newman Educational Center (EPNEC). Friday evening began with keynote address “Cardiac Disease and Oncology” delivered to a joint session of the Midstates Consortium and the Siteman Cancer Center’s symposium. The keynote speaker was Dr. Pamela Woodard, Professor of Radiology, Chair of the Department of Radiology and Director of the Mallinckrodt Institute of Radiology, Washington University School of Medicine. In her talk she reviewed the progress of her career emphasizing both the influence of her mentors and the experience of being one of the first women in what was then a male dominated field. Dr. Woodard’s talk was followed by a buffet banquet.

The evening concluded with a talk by Dr. Devavani Chatterjea, professor in the Biology Department at Macalester College and the 2023 Janet Andersen Lecture awardee in Biological Sciences and Psychology. Her talk titled “Bodies of fire: inflammation and discovery research as life-changing forces” focused on her research group’s studies on the causes of vulvodynia. She highlighted their research which searched for links between this chronic pain malady in women and exposure to chemical preservatives. Her talk emphasized the role of imagination, hard work, and dedication on the part of her numerous undergraduate students.



*Dr. Devavani Chatterjea*

Saturday was kicked off by the first set of oral sessions in which 12 students gave 12 talks in 3 concurrent sessions. This was followed by Poster Session 1 where 34 students presented 32 posters. The second poster session, coming immediately after the first, had 34 student presenters and 33 posters. A buffet lunch was served afterwards. Students could bring their lunch with them and eat while attending a workshop “Applying to Graduate School” with Washington University graduate students serving as panelists. The second set of oral sessions came after lunch and involved 14 students and 14 talks in 3 concurrent sessions. The symposium concluded with the third poster session, consisting of 33 posters presented by 37 students. The entire schedule of the meeting, including the abstracts for the presentations, is posted on the Midstates website at [mathsciconsortium.org](http://mathsciconsortium.org).

## NEW DIRECTOR OF THE MIDSTATES CONSORTIUM



*Dr. Pamela Kittelson*

We are pleased to announce that Dr. Pamela Kittelson of Gustavus Adolphus College will be taking over as director of the Midstates Consortium in June. Dr. Kittelson is Professor of Biology and Director for National Fellowships and Scholarships at Gustavus Adolphus College. She grew up in Colorado and received her B.A. in Biology from one of the Midstates Consortium schools, Colorado College. For her graduate studies she moved to California, first for an M.A. in Biology from Humbolt State University and then for a Ph.D in Plant Biology from the University of California, Davis. She attributes her love of being outdoors, at least in part, to her western upbringing. This love of the outdoors meshes with her research specialty: she is a field ecologist who is interested in factors that shape genetic diversity of plant populations in fragmented habitats particularly native grassland species. Dr. Kittelson has been at Gustavus

Adolphus since 1999 where, in addition to teaching ecology, plant physiology, evolution, and general biology, she has had a very active and successful undergraduate research program. She has served as the Gustavus Adolphus College campus representative for the Midstates Consortium and as developer and facilitator of the Midstates Faculty Mid-career Workshop.



## THE 2024 JANET ANDERSEN LECTURE AWARD NOMINATIONS

Nominations for the 2024 Janet Andersen Lecture Award are due March 31, 2024. A nomination package should include the nominee's CV and a nomination letter outlining the nominee's achievements in mentoring research students and in teaching. This material should be sent by email to Midstates director Ed Hansen (midstatesdirector@gmail.com).

Professor Janet Andersen was a faculty member in the Hope College Mathematics Department and served enthusiastically as the Midstates Consortium Director for five years before her life ended tragically in an automobile accident. To honor Janet Andersen's dedication and commitment to her work with students and faculty in her teaching, research and service to the consortium, the Janet Andersen Lecture Award was established in 2008. The Midstates consortium chooses two faculty members from among our member institutions each year who are exceptional mentors for undergraduate research students and are engaged and skilled teachers. The winners present the Janet Andersen Lecture during a fall Undergraduate Research Symposia on a topic of their choice.



## UPCOMING EVENTS

**Executive Board Meeting (April 26-27, 2024):** The Midstates executive committee – made up of the campus representatives from each school- is scheduled to meet in person this year. This is the meeting at which decisions are made about the coming program year, including the budget, as well as the longer-term future of the consortium. It is also the meeting at which the Janet Andersen Lecture awardees are chosen for the next set of undergraduate research symposia. This year we will gather at a hotel close to the Minneapolis-St. Paul Airport. The meeting will begin with a casual dinner Friday, April 26. The business meeting will start with breakfast on Saturday, April 27 and will conclude by 3:00 pm. We will include a hybrid option for the business meeting for those who are not able to attend in person.



*Early Career Workshop, 2023*

**Workshop for Early Career Success (July 12-14, 2024):** This weekend workshop is open to early career faculty, post-docs, and senior graduate students, and will follow the format of our successful early career workshops from previous years. Peer coaching and deep-listening experiences will help participants structure an individualized strategic action plan that will be a guide for personal, meaningful, and rewarding career development. The workshop will be held at Gustavus Adolphus College and will be facilitated by Professors Scott Bur and Jeff Dahlseid. **Registration is open now at [mathsciconsortium.org](http://mathsciconsortium.org).**

## Undergraduate Research Symposia

**Biological Sciences and Psychology Symposium (November 1-2, 2024):** The symposium will be hosted by the University of Chicago. The on-line application will be available on the consortium

website ([mathsciconsortium.org](http://mathsciconsortium.org)) from July 1 – September 27. The application form will open two months earlier than in previous years to allow summer research students to apply to the symposium before the end of their summer programs.

**Physical Sciences, Mathematics and Computer Science Symposium (November 15-16, 2024):** The symposium will be hosted by Washington University in St. Louis. The on-line application will be available on the consortium website ([mathsciconsortium.org](http://mathsciconsortium.org)) from July 1 – September 27. The application form will open two months earlier than in previous years to allow summer research students to apply to the symposium before the end of their summer programs.

## **SHORT-TERM COLLABORATIONS AND SPEAKERS SERIES**

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

**Short-Term Collaborations:** The purpose of the Short-Term Consultation (STC) program is to encourage and support collaborations involving two or more individuals at different consortium campuses. The STC grants fund faculty and students in a particular area to visit a member campus to share information, instrumentation, facilities, or expertise. Funds are available to support numerous activities including, but not limited to, consultation on curriculum, collaboration on research projects, participation as an outside examiner in a senior thesis exam, demonstration of a laboratory technique suitable for an undergraduate laboratory, advising faculty or departments on proposal writing and project assessment, or the use of laboratory equipment.

**Speakers Series:** The Midstates Speakers Series was established to facilitate the exchange of ideas and connections between members of the consortium. Consortium funds are available to pay for travel, lodging and meals for people visiting other consortium campuses to give a talk. We are constructing a database of speakers but will also support colloquia by people at our member institutions who are not on the database.

The applications for both programs are relatively short and simple, and are available at [mathsciconsortium.org](http://mathsciconsortium.org).