

Consortium Connections

Connecting campuses to promote excellence in science and mathematics

February 2019

Founded by the Pew Charitable Trusts in 1988

Vol. 12, No. 1

Mark your calendar for upcoming 2019 events (see newsletter section for information)

- March 18, 2019 Janet Andersen Award nominations due
- April 12-13, 2019 Executive Committee Meeting, Aloft Chicago O'Hare
- July 26-28, 2019 Early Career Workshop, Gustavus Adolphus College
- **November 1-2,*** 2019 Biological & Psychological Sciences Symposium in St. Louis ***revised 3/28**
- November 15-16, 2019 Physical Sciences, Math and Computer Science Symposium in Chicago

Comments from the Director



Karim Khalid, St. Olaf, Pietro Tardelli Canedo, Macalester, Marietta Saldias Montivero, Macalester, Dahao Feng, Colorado College, at Chicago symposia

Presenting your research at a meeting is an important part of one's work as a scientist, since it allows you to share results with the larger scientific community and provides an occasion to learn new ideas about resolving challenges in your research. Going to meetings also provides time for valuable face-to-face interactions with colleagues and friends. This was the case for the four students seen in the adjacent photo. They all have the common background of getting their International Baccalaureate from the United World Colleges (UWC), a program to "make education a force to unite people, nations and cultures for peace and a sustainable future." UWC has 17 schools and selects students from more than 155 countries. Karim (Sudan), Pietro (Brazil), and Dahao (Chile) all attended the UWC Costa Rica College, and

Marietta (Chile) attended the South East Asia College in Singapore. Who would have guessed that they would all reconnect as UWC alumni at the Midstates Research Symposium at the University of Chicago?

Being at a meeting can often be the source of unexpected ideas, new professional contacts and catching up with old friends. As with any community, being a part of the scientific community provides the opportunity to get to know others in the group and be supportive of each other's goals and aspirations.

While student research is the focus of the Midstates Symposia, the meetings are also a wonderful time for faculty to catch up with their colleagues and to delve into common areas of interest. There are even Midstates resources for further discussion of research and professional interests. If it has been awhile since you have traveled to a Midstates meeting with students, I encourage you to do so. You never know who you will meet or what your next new project might be.



Professors Paul Fischer, Macalester and Graham Sazama, Lawrence, discussing EPR during the symposia at Washington University in St. Louis

This newsletter has a summary of both 2018 research symposia and a list of seminar speakers and short-term consultations for 2018-19. An article on the 2018 Early Career Workshop appeared in the September 2018 newsletter. As students continue their research this semester and through the summer, do keep in mind that they can share their work with peers by presenting at the 2019 Undergraduate Research Symposia.



Mike Seymour, MCMS Director

Undergraduate Research Symposium in the Physical Sciences, Mathematics and Computer Science, Washington University in St. Louis, November 9-10, 2018



Symposium participants after Friday dinner at the Sheraton Clayton Plaza



Dr. Stewart and students after Janet Andersen talk

The 2018 Physical Sciences, Math and Computer Sciences Symposium at Washington University in St. Louis was attended by 89 students and 20 faculty from all of the member schools. The symposium opened on Friday evening with a buffet dinner at the Sheraton Clayton Plaza Hotel. Students and faculty were assigned to specific tables in order to encourage mixing between schools. After dinner, Professor Joanne Stewart, Hope College Chemistry Department, presented the Janet Andersen Memorial Lecture. Entitled “Science, Empathy, and the Ethic of Care,” the lecture was followed by a lively Q & A session.

On Saturday participants arrived at the Laboratory Sciences Building on the Washington University campus for a continental breakfast. The opening series of oral presentations included 8 papers in two parallel sessions in adjoining rooms so that students could easily move between talks. After a break, 21 students discussed their work at a poster session in the Rettner Gallery. The morning program concluded with another series of 6 oral presentations.

A Mexican-themed buffet lunch was served in the nearby Holmes Lounge. Dean Chris Kroeger of the Washington University School of Engineering



Poster session in Rettner Gallery

briefly discussed the dual degree program that WU Engineering offers to students at liberal arts colleges. Then four Washington University graduate students, all of whom attended Midstates Consortium colleges, participated in a panel discussion entitled “Life in Graduate School.” They described their graduate school experiences and answered questions from the floor.

The afternoon scientific program featured another series of oral presentations with three parallel sessions in adjoining rooms (9 total presentations) and two 45-minute poster sessions (38 total posters). The symposium concluded at 4:30 pm. Participants who were traveling back to their home campus picked up a box dinner that they had previously ordered. Those who could not reasonably travel home on Saturday had dinner at a local restaurant of their choosing and departed from the Sheraton Hotel on Sunday morning.



Lunch, presentation by Dean Kroeger, and panel discussion in Holmes Lounge

Overall, the symposium was very well received by both students and faculty. Many students remarked that they enjoyed meeting like-minded students from peer institutions and the opportunity to discuss their research in a supportive and empowering environment. They also enjoyed seeing the scenic Washington University campus.

Undergraduate Research Symposium in the Biological and Psychological Sciences, University of Chicago, November 2-3, 2018

The 2018 Midstates Undergraduate Research Symposium in Biological Sciences and Psychology began with a Friday evening program at the LaQuinta Inn and Suites Lakeshore. Carole Ober Ph.D, Blum-Riese Distinguished Service Professor and Chair, Department of Human Genetics University of Chicago, opened with the keynote address entitled “The Hygiene Hypothesis and the Origins of Asthma – Studies in U.S. Mennonite Farming Communities.” This was followed by a buffet dinner with students and faculty assigned to specific tables so that there would be interaction between participants from different schools and disciplines. After dinner, Dr. Neena Grover, Professor of Biochemistry at Colorado College gave the Janet Anderson Lecture “My Journey as a RNA Biochemist.”



Symposium participants after the Friday evening dinner at the La Quinta Inn



Poster session in the Gordon Center Atrium

Saturday morning after breakfast at the hotel, 121 students and 13 faculty gathered at the Gordon Center for Integrative Sciences (GCIS) on the University of Chicago campus for the full day scientific program. The first poster presentation with 30 students started at 8:45 in the GCIS atrium. The hour-long session was followed by a short break and then participants moved to hear their choice of 12 speakers in the four parallel sessions of oral presentations. The next activity was a seminar and panel discussion entitled “How to continue your research training: attracting funding and considering whether graduate school is right for you.”

The informative slides from this talk are available on the Midstates web page. After the discussion students enjoyed a walk across campus to the Baker Dining Hall for a buffet lunch and an opportunity to see some of the interesting architecture on campus.

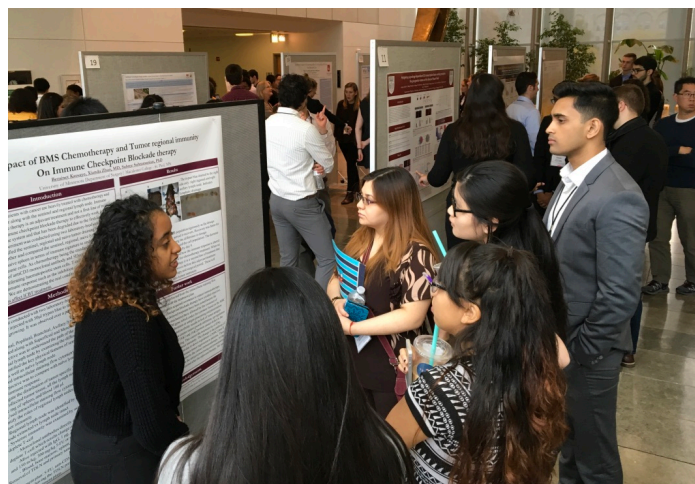
The afternoon program included two poster sessions, each an hour long with 31 students sharing their work, and another group of 14 speakers giving talks in four parallel sessions. With breaks and refreshments between each of set of posters and talks there was ample time for informal discussion among the participants.

The meeting came to close at 4:45 as students gathered their posters and picked up box meals for their trip home. Shuttles had been scheduled for trips to either O’Hare or Midway airports.

At the conclusion of the meeting students and faculty were sent an online survey that they could complete on their mobile device. It was noteworthy to see an overwhelming response indicating students and faculty would recommend future participation in the meeting.



Seminar and panel discussion on graduate school selection



Discussion of research outcomes at a poster session

The 2019 Janet Andersen Lecture Award Nominations

Nominations for the 2019 Janet Andersen Lecture Award are due March 18, 2019. See the link on the Midstates website (<http://mathsciconsortium.org>) for complete information regarding nomination criteria and the information to be submitted. Congratulations to Dr. Neena Grover, Professor of Biochemistry and Chair of Faculty Executive Committee, Department of Chemistry and Biochemistry, Colorado College and Dr. Joanne Stewart, Elmer E. Hartgerink Professor of Chemistry, Department of Chemistry, Hope College for being selected as the 2018 Janet Andersen Lecture Award recipients. The September 2018 newsletter (Vol. 11, No. 2) has their biographical information.

Short Term Consultations and Seminar Speakers 2018-19 program year

The following seminar visits and consultations have been approved as of February 2019.

- Professor Erik Henriksen, Washington University in St. Louis presentation to the Physics Department at St. Olaf College, “Physics by proximity to graphene.”
- Professor Colin Scheibner, University of Chicago presentation to the Physics Department at St. Olaf College, “Odd Elasticity.”
- Professor Laura Burrack, Gustavus Adolphus College presentation to the Molecular Biology Department at Colorado College, “What makes a "good" centromere?: Determinants of chromosome segregation accuracy in *Candida albicans*.”
- Professor Brent Krueger, Hope College host for proposal preparation with Keith Kuwata, Macalester College, NSF-MRI proposal for computer software and hardware for collaborative student faculty research.
- Professor Natalie Gosnell, Colorado College presentation to the Physics Department at St. Olaf College, “Evolutionary histories and future evolution of canonically strange binary stars.”

Upcoming Events 2019

- *March 18, 2019:* nominations for Janet Andersen Award due. See the Consortium website for additional information (<http://mathsciconsortium.org>).
- *April 13, 2019:* Executive Committee Meeting, Aloft Chicago O’Hare. This one-day program is when Consortium campus representatives meet in person to review current activities and programs, propose new ideas, and discuss the financial status. If you would like to provide input on how the Consortium operates or suggest future directions, we look forward to hearing from you. Contact your campus representative or the Director (midstatesdirector@gmail.com).
- *July 26-28, 2019:* Workshop for Early Career Success, Gustavus Adolphus College. Details of the program, which is open to early career faculty, post-docs and senior graduate students, is on the MCMS homepage (<http://mathsciconsortium.org>). Registration for the meeting will open in late April.
- *November 1-2*, 2019:* The Biological and Psychological Sciences Undergraduate Research Symposium will be held at Washington University in St. Louis. Registration will open on the Consortium web site by September 1. ***revised 3/28/19**
- *November 15-16, 2019:* The Physical Sciences, Mathematics and Computer Science Undergraduate Research Symposium will be held at the University of Chicago. Registration will open on the Consortium web site by September 1.