

What's happening in the CSN?

November 29, 2016

Volume 2, Issue 3

Celebrations!

Welcome to New CSN Members

The CSN welcomes **Jaya Borgatta**, a graduate student in the Department of Chemistry at UW-Madison who has joined the **Hamers group**. Jaya received her degree in chemistry from Skidmore College.



Milestones and awards



Hyo Park, an REV student in Zeev **Rosenzweig's** lab last summer, has won a Presentation Award in the Engineering, Physics and Mathematics scientific discipline for Nanotechnology at the Annual Biomedical Research Conference for Minority Students ([ABRCMS](#)). Hyo had also won a travel award to the conference to present his poster titled "Quantum Dot Chemical Stability and their Interactions with Zebrafish Embryos." Congratulations, Hyo!

Congratulations to **Christy Haynes**, who was included on the [Analytical Scientist Power List 2016](#)! The magazine describes the mission of their power list: "to prove just how impactful and diverse our field is by sharing the passions, pivotal moments and predictions of brilliant scientists who continue to shape our future." See Christy's profile [here](#) and read more about the award at the University of Minnesota Department of Chemistry's announcement [here](#).

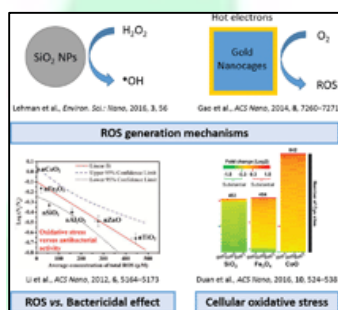


Rigoberto Hernandez won reelection for a second term as ACS District IV Director. You can read the *C&EN* report on the election [here](#).

The CSN paper "Toxicity of Engineered Nanoparticles in the Environment" by Melissa A. Maurer-Jones, **Ian L. Gunsolus**, **Catherine J. Murphy**, and **Christy L. Haynes** is on the list of "most cited articles" for *Analytical Chemistry* from 2013-2015 (>160 citations and counting on Google Scholar)!

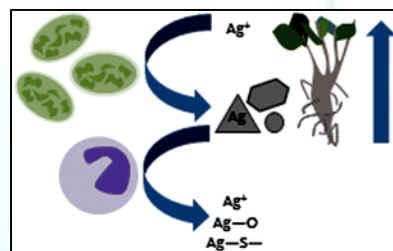
From the Director: Thanks to everyone who has been pushing to get our publications out the door (we've submitted 8 publications since October)! Let's be sure to keep our publications moving!

The diagram illustrates the experimental workflow. On the left, a UV light source (represented by a sun icon with 'UV' inside) and a sample of TiO_2 nanoparticles (shown as a microscopic image) are combined with a sample of *Shewanella oneidensis* bacteria (shown as a microscopic image with a 10 μm scale bar). An arrow points from this combination to a vertical flowchart on the right. The flowchart consists of five steps connected by downward arrows: 'Bacterial cell viability', 'Bacterial growth', 'Bacterial function' (with 'Riboflavin secretion' written below it), and 'Gene expression'.



Qiu, T. A.; Gallagher, M. J.; Hudson-Smith, N. V.; Wu, J.; Krause, M. O. P.; Fortner, J. D.; Haynes, C. L., Research highlights: unveiling the mechanisms underlying nanoparticle-induced ROS generation and oxidative stress. *Environmental Science: Nano* **2016**, *3*, 940-945.

Hudson-Smith, N. V.; Clement, P.L.; Brown, R.P.; Krause, M.O.P.; Pedersen, J.A.; Haynes, C.L. Research highlights: speciation and transformations of silver released from Ag NPs in three species. *Environmental Science: Nano* **2016**, Advance article.



Rigoberto Hernandez's NSF presentation on "Advancing Science Through Diversity" from April is now available online [here](#).

Bob Hamers presented an invited talk entitled “Transformations and Biological Impact of Emerging Energy Storage Nanomaterials” at the AVS 63rd International Symposium in Nashville, TN.

Joe Bennett (Mason group) presented a talk entitled “Modeling the dissolution of complex oxide cathode materials” at the 51st Midwest Regional ACS Meeting in Manhattan, Kansas.

Catherine Alvarez (Hamers group) attended the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) meeting in Long Beach, CA and gave a presentation about her CSN research and about our outreach efforts. Her talk was part of a joining CCI presentation entitled, “Grand Challenges in Chemistry and its Communication”



Lloyd Munjanja (CCHF DEOD), Danielle Watt (CaSTL DEOD), Catherine, Becky Hames (CAICE DEOD), a mystery student (?) and Chris Parsons (CCE DEOD).

Graduate student **Alicia McGeachy (Geiger group)** and Education/Outreach Director **Miriam Krause** attended the 43rd annual meeting of NOBCChE, the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Alicia received a Student Travel Award to present her talk, “Quantifying Polycation-Membrane Interactions from Experiment and Theory.” Miriam also presented a talk, mostly about the Sustainable Nano blog, called "Training Effective Communication to Prepare Future STEM Leaders in Chemistry." The CSN, CCHF, CaSTL, and CAICE co-hosted a table in the exhibit hall to talk with undergraduate and graduate students.



Left: Alicia with her CSN acknowledgement slide; Right: Dr. Robert Pomeroy (CAICE), Miriam, Danielle Watt (CaSTL DEOD), Margaret-Anne Wampamba (NSF), and Lloyd Munjanja (CCHF DEOD) at the CCI exhibit hall

Building and Supporting Diversity

Attending conferences: Smaller conferences like NOBCChE, SACNAS, ABRCMS, and others are excellent for networking, community building, and professional development as well as for their scientific/technical communication. If there is a conference that you would like to attend but need extra funding to make it possible, contact Miriam about potential CSN support.

Remember to spread the word about our REU and REV Programs! Attending smaller conferences is also a great way to help us broaden our pool of REU/REV candidates, but we need everyone's help with recruiting! When giving a talk, it's a great idea to put up a slide at the end with information about our REU and REV programs. Contact Mike or Miriam for a template slide that you can just slip in at the end of your talk. Please try to help us to recruit the very best talent we can!

Lab Exchanges

Stephanie Mitchell (Carlson group) visited the **Hamers** and **Pedersen** labs during her down time while attending a conference in Madison.



Left to right: Mimi Hang, Margy Robinson, Stephanie Mitchell, Arielle Mensch, and Liz Laudadio in front of a poster.

Mike Schwartz visited **Mike Curry's** lab at Tuskegee University. While he was there, he met students and faculty, and toured the historic campus with **Donald White** (Curry group). During his trip, Mike also visited Managing Directors for two CCIs based in Atlanta: Christine Conwell at the Center for Chemical Evolution (Georgia Tech) and Dan Morton at the Center for Selective C-H Functionalization (Emory University).



Standing: Mike Schwartz, Donald White, Aiesha Ethridge, Delayna Harris, Chemar Huntley, and Mike Curry. **Front:** Manal Alwohaibi.



Mike, Donald, and an ancient NMR.

Oh, and that happened...



Opportunities

Upcoming Professional Development Activities

How to Network & Build Strong Relationships for Technical Professions. CCI-Solar recently hosted a professional development activity on networking and they have kindly shared the video with us. You can find the link on our website meeting archive page under the Professional Development tab.

Research Statements for Job Applications. December 13 at 3:00 Central: Vivian Feng & Erin Carlson will present a professional development session on writing a research statement for job applications. This will be particularly relevant to more senior students, but all are encouraged to attend - it's never too early to start thinking about how to describe your research! Other faculty are also invited to contribute to the discussion.

Looking Ahead

The CSN will be implementing formal reporting requirements for faculty, students, and postdocs

As part of the process of initiating a formal evaluation process within the CSN, the Executive Committee is planning to implement a more formal reporting procedure to track progress for projects in the Center. While the Executive Committee is still finalizing details of the process, our plan will be for all students and postdocs to provide a *very short* (i.e., no more than 1-2 paragraphs and/or bullet list) summary of activities, progress, and plans each month. Faculty will provide a quarterly update for their lab (likely 1-2 pages, depending on number of CSN students). The quarterly reports will help to ensure that everyone is on the same page and that we are making progress towards CSN goals and milestones, while also providing an opportunity to course-correct if necessary.

Formal instructions will be provided once the plan is finalized; ***there is nothing you need to do right now.*** However, if you have questions or comments about reporting, please let Bob or Christy know.

Attention, graduate students: Call for Proposals for Grad-Student Organized Symposia at Fall 2017 ACS National Meeting (from ACS email newsletter).

The ACS Division of Analytical Chemistry (ANYL) will feature three graduate-student organized symposia at the 254th ACS National Meeting in Washington, DC, in August 2017. Teams of two graduate-student organizers are invited to submit proposals for these symposia, which should include the following: a title for the symposium, a brief description of the proposed topic, and a list of five prominent researchers in the field who would be invited. Symposia chosen for support will include both invited and contributed talks and could extend over several half-day sessions, depending on the number of contributed papers. Student organizers will issue invitations to the five featured speakers, solicit contributed papers, and organize and chair the sessions. They will also receive free meeting registration and a contribution toward travel expenses. The five invited speakers will receive registration support. Teams that combine graduate students from two universities are especially encouraged. Submit proposals by November 30, 2016, to Miquela Sena at the ANYL office, at miquela@sciencemanagers.com.

Lost in Cyber-Space?

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Links to frequently requested CSN documents and information sources

For these documents and more, visit the [Center Resources page](#) on the [CSN website](#) (requires login though Members page, contact [Miriam](#) if you need help).

Newsletter submissions (awards, highlights, lab exchanges, publications, FUN, etc.): [link](#)

CSN Documents and Downloads

- CSN calendar (RFA, All-hands, professional development): [link](#)
- CSN Operations Guide 2.1: [link](#)
- CSN participants list (Names, group, and email addresses): [link](#)
- CSN Projects Documents (May 2016 version): [CSN Projects](#)

CSN Reporting Forms

- Report lab exchange activities: [link](#)
- New CSN Publications: [link](#)
- New CSN Presentations: [link](#)
- Report Outreach Activity: [link](#)
- CSN Safety Verification form: [link](#)
- Nanoparticle availability (Listing of NPs available center-wide): [link](#)

CSN Feedback Forms

- Requests for the Executive Committee (meeting agenda): [link](#)
- SuggestionOx (completely anonymous comments/suggestions to CSN staff):
Director (Bob): [link](#)
Associate Director (Christy): [link](#)
Managing Director (Mike): [link](#)
E/O Director (Miriam): [link](#)

