

What's happening in the CSN?

Vol. 1, Issue 7

May 10, 2016

Celebrations

Milestones and Awards

Congratulations to **Ian Gunsolus** (Haynes group), who successfully defended his Ph.D. thesis titled "Engineered Nanomaterial Interactions with Bacterial Cells" on May 3rd!

Congratulations to CSN undergraduate researcher **Kyle Johnson** (Haynes, Feng groups) on being chosen as a winner of the University of Minnesota Thomas DuBruil Undergraduate Research Award for 2016. This award is given to a junior who has demonstrated outstanding achievement in undergraduate research in chemistry.



Arielle Mensch (Hamers group) was awarded a departmental travel grant through the UW-Madison Department of Chemistry Graduate Student Faculty Liaison Committee. She plans to use the grant to present at the upcoming International Conference on the Environmental Effects of Nanoparticles and Nanomaterials (ICEENN) this August in Golden, CO. Congratulations, Arielle!

Prof. **Erin Carlson** was in Washington, D.C. last week, where she received her Presidential Early Career Award for Scientists and Engineers (PECASE) award. You can read more about it in [this White House blog post](#), which specifically mentions Erin's work (there were more than 100 winners)! Congratulations Erin!



CSN's own Erin Carlson (green arrow), pictured here with President Obama (red arrow) and the rest of the PECASE winners (invisible arrows)! Official White House Photo by Lawrence Jackson

Meet the Students/Postdocs



Mimi Hang (Hamers group). I was born unexpectedly on a MOVING train going from Phan Rang to Da Nang in Vietnam. Needless to say, that's been one of the few times I've ever been early to anything! When I was 7 months old, we immigrated to the United States as part of the last remaining surge of refugees from the Vietnam War under the HO (Humanitarian Operations) program. We were given a new life and I grew up in Honolulu, Hawai'i!

After finishing high school in Hawai'i, I traveled to the other side of the country to go to Mount Holyoke College. In 2012, I graduated with a B.A. in chemistry and physics and I started graduate school at the University of Wisconsin-Madison working in the Hamers group. It's been an amazing experience to be a part of the CSN since its beginning in 2012. My focus in the Center has been to synthesize nanomaterials such as LiCoO_2 and NMC as well as to understand how these materials undergo aqueous induced transformations.

In my spare time, I enjoy playing with my cats and writing a book that I've titled "Conversations with Ma." It is comprised of my childhood memories interwoven with conversations I've had with my ma of her own memories as a child of the War (just wait for it, one day, it'll be published!!!).

Joe Buchman (Haynes group). I grew up in a suburb of the Twin Cities with my large extended family. I went to Augsburg College for undergrad, where I had my first research experience working in Dr. Vivian Feng's lab using metal catalysis to catalyze the degradation of polychlorinated biphenyls, an environmental pollutant. I joined the chemistry department at the U of M in 2013, and am currently a third year grad student. In the Center, I'm working in the Haynes lab, investigating the generalizability of the role of LPS in mediating bacterial/nanoparticle interactions.

When I'm not in the lab, I really enjoy hanging out with friends and playing board games ("Betrayal at the House on the Hill" is our current favorite!). I also spend a lot of my free time running, I've signed up for a ton of 5Ks for this summer already. I've recently been signing up for glass blowing classes with various people, which has proven to be a lot of fun and I'm hooked on it. Basically, anything that allows me to talk to a group of people while I do it I probably enjoy. :P If you want something to geek out with me about, talk to me about the T.V. show *Once Upon a Time*, it's by far my favorite thing ever!



Joe along with family and friends, getting ready to do a color run 5k (Joe is in the second row, 3rd from the right).

After my Ph.D., I would like to be working in industry, preferably the medical device field. To that end, I recently got accepted into an internship opportunity at St. Jude Medical in the Twin Cities for this summer, so I'm looking forward to that experience.

Stephanie Mitchell (Carlson group). I grew up in the northwest suburbs of Chicago. My father fostered my love for science by encouraging me to investigate the answers to all my questions. Chemistry became of particular interest to me because it provides the most fundamental way to answer *how* and *why*. I received my B.S in chemistry with minors in math and biology from Butler University in Indianapolis.



Stephanie hiking in Arenal Volcano National Park in Costa Rica.

During my undergraduate career I had internships at AbbVie pharmaceutical company which is what inspired me to pursue my Ph.D. I am a first year graduate student in Erin Carlson's lab at the University of Minnesota, where I am currently investigating the impact of nanoparticles on the metabolome of bacteria.

In my free time I enjoy reading and playing the piano. My personal goal is to always read books before I see the movie version. I also enjoy numerous outdoor activities including fishing, hiking, and boating. I have

been able to take advantage of the numerous bicycle trails that Minneapolis has to offer and explore surrounding areas. In my free time I also participate in educational outreach through the University of Minnesota. I enjoy teaching and helping people appreciate chemistry.

Lab Exchanges

Kaila Noland (Rosenzweig group) visited Prof. **Christy Haynes'** lab at the University of Minnesota, where she conducted initial experiments with **Ian Gunsolus** to determine the effects of SMAMPs-coated gold nanoparticles on embryonic zebrafish. Using [CytoViva](#) technology, she demonstrated that SMAMPs-coated gold nanoparticles penetrated the chorion and into the tissue of the zebrafish embryos. She even had time to run a preliminary Minimal Bactericidal Concentration (MBC) study with **Joe Buchman** and **Autumn Qiu**, which compared different SMAMPs-coated nanoparticles to demonstrate that increasing amine density correlated to decreased toxicity in *Shewanella oneidensis*!



CSN Talks and Presentations

Undergrad **Dona-Carla Forester (Haynes group)** presented a poster entitled "Measuring the toxicity of NMC nanomaterials on *S. oneidensis* MR-1 using colony counting method" at the University of Minnesota Undergraduate Research Symposium on April 29, 2016.

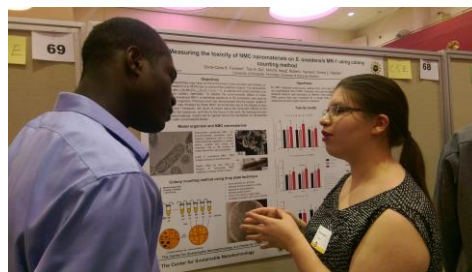


Photo credit: Autumn Qiu

Prof. **Rigoberto Hernandez** presented at the National Science Foundation Distinguished Lectures in Mathematical and Physical Sciences on April 25th. His talk was titled “Advancing Science Through Diversity.” He also gave the Keynote lecture, titled “Lost in Projection,” at the 25th Anniversary Celebration of SoFlacs (The ACS South Florida Section) (see photo).



Opportunities

A new pair of web-based portals have launched with the goal of helping undergraduates and graduate students search for Federally-sponsored opportunities in STEM:

Graduates - <http://stemgradstudents.science.gov/>

Undergraduates - <http://stemundergrads.science.gov/>

Looking Ahead

Webex Update Alert. On Thu May 12, 2016, Cisco will be applying a Service Pack to WebEx services including ours. After the patch is applied, a new meeting application will automatically be offered the first-time users enter a meeting. The installation of the update should be automatic and a restart should not be required, but please allow a little extra time to log on for your first meeting after May 12 just in case.

Upcoming Professional Development Activities

CSN Professional Development Activity: Mentoring. Our next CSN professional development activity will be on Monday, May 16 from 3:00-4:00 p.m. Central time. We will discuss mentoring principles, challenges, and recommendations, aiming to be relevant to all students, but with some specific focus on our REU/REV program.

The Art of Science Communication - online course from American Society for Biochemistry & Molecular Biology. The ASBMB is offering an 8-week online course on science communication starting in June. Course fee is \$25 for members (grad student membership is also \$25). Course overview description: "The goal of the course is to provide participants with fundamental training in science communication, focusing in particular on how to present science to a non-expert audience in a formal setting such as a public lecture. Using a combination of video lectures, background material, and virtual mentoring sessions and discussions, the course covers the important components of what makes for a successful presentation, such as messaging, generating interest, and engaging with the audience. Armed with this knowledge, participants will be able to utilize the skills learned during the course in their professional lives." See <http://www.asbmb.org/Outreach/Training/ASC/> for more information and application link.



Lost in Cyber-Space?

Links to frequently requested CSN documents and information sources

HOME ABOUT US OUR TEAM NEWS EDUCATION & OUTREACH WORKING WITH THE CSN PUBLICATIONS RESEARCH MEMBERS

For these documents and more, visit the [center resources page](#) on the [CSN website](#) (requires Member login, contact [Miriam](#) if you need help).

CSN Documents and Downloads

- Center-wide detailed schedule: <http://tinyurl.com/zeukpus>
- CSN Operations Guide: <http://tinyurl.com/zyw9k4h>
- CSN participants list (Names, group, and email addresses): <http://tinyurl.com/jrrkp4b>
- List of all CSN researchers and project names (google-sheet): <http://tinyurl.com/hxfazkl>
- Approved projects for all students/postdocs: <http://tinyurl.com/hnp3whg>
- Download the Webex player: <https://www.webex.com/play-webex-recording.html>.

Forms

- Agenda requests for the Executive Committee: <http://tinyurl.com/z9eftvh>
- Report lab exchange activities: <http://tinyurl.com/jxw5jh9>
- Nanoparticle availability (Listing of NPs available center-wide): <http://tinyurl.com/goathu7>
- Suggestion Ox (All comments are completely anonymous):
<https://www.suggestionox.com/response/BeNBi6>
- Newsletter topics (To suggest a topic or to add information to be included in the next newsletter; e.g., an award, highlight, etc.): <http://goo.gl/forms/Rz8FIIXnGy>