What's happening in the CSN?

June 7, 2016
Volume 1, Issue 9

Celebrations

Welcome to New CSN Members

The CSN is pleased to welcome our incoming REU/REV students for summer 2016! We have 6 REU students and 2 REV students who will be doing summer research in CSN labs. Our REU students include **Ellen Purdy** (University of Chicago, **Carlson** group), **Daniel Conroy** (Colorado State University-Pueblo, **Hamers** group), **Jo Machesky** (Northwestern University, **Geiger** group), **Susan Pham** (Oklahoma State University, **Haynes** group), **Sam Broadnax** (University of Wisconsin-Madison, **Klaper** group), and **Nicole Moehring** (University of Wisconsin-Stout, **Murphy** group). Our REV students are **James O'Rourke** (University of Wisconsin-Madison, **Pedersen** group), a U.S. Navy veteran who was assigned as a combat medic with the Marine Corps infantry and logistics units, and **Hyo Park** (Chaminade University of Honolulu, **Rosenzweig** group), a U.S. Navy veteran who was stationed on the *USS Lake Erie* in Pearl Harbor. Welcome to the CSN, everyone!

Meet the Students/Postdocs

Denise Williams (**Rosenzweig** group). I was born and raised in Maryland as the oldest of three daughters (My poor father. I know.). Throughout my early education I was enrolled in science and technology academic programs and regularly attended STEM-focused camps. It was in my junior year of high school that I decided I wanted to attend the University of New Haven as a Forensic Science with a concentration in Chemistry major influenced by a camp at McDaniel College, my favorite teacher being the Chemistry and Forensics instructor, and my general background in STEM.

Picture: Wedding Flash Mob 5/29/2016. I am bottom left. I have known most of the boys since high school. The remainder of the group I met last summer at the first Flash Mob I joined.

During my second year at the University of New Haven, I added Chemistry as a second major and am truly happy I did! My summer internship positions at the University of Verona, Institute of Forensic Medicine and Argonne National Laboratory enforced my passion for chemistry. My undergraduate research was focused toward the development of cannabinoid detection, inspired by both majors. I am finishing up my first year in the Rosenzweig laboratory at the University of Maryland, Baltimore County. My specific work will be on the synthesis of cadmium-free quantum dots and the development of functionalized surface chemistries. I aim to become a mentor in the STEM field from a research position, as the interactions I had with people at my university and at my internships are the reason I am pursuing my Ph.D.

Since the first grade I have been dancing. Ballet, Tap, Spanish, Hip-Hop, Jazz, Interpretive... You name it I may have tried it at least once. Because of the time commitment of dance I am now more of a gym rat, but you me catch me in the occasional flash dance with some of my old dance buddies. My dance personality completely contrasts my natural introverted behavior. I am very quiet until warmed up, but I always get out of my shell eventually.

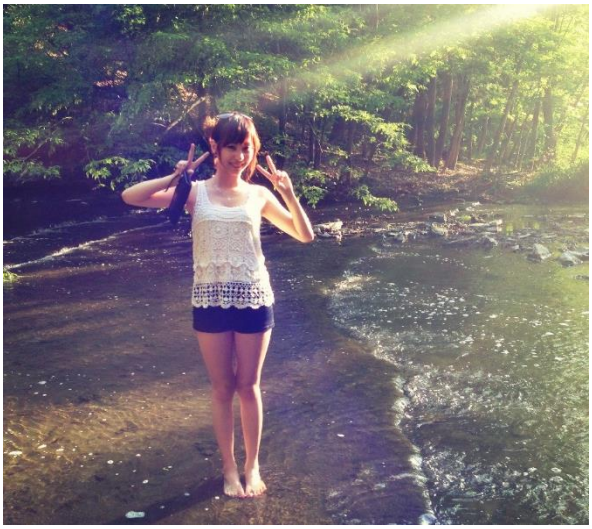
At Santa Monica Beach, July 2014

Meng Wu (**Murphy** group). I was born and raised in Chibi (central China), a small yet historic city by the Yangtze river, where nearly two thousand years ago (208 CE), the Wu and Shu empires joined forces, outwitted, and defeated the powerful invading Wei empire. It is now known as the famous Battle of Chibi.

I did my undergraduate work at Fudan University in Shanghai, mainly working on the development of upconversion nanoparticles as biosensing probes. I did summer research at UCLA, where I worked on surface-initiated ATRP reactions. After graduating with a B.S. in chemistry, I started working in the **Murphy** group at Illinois and proudly joined the CSN community. My goal in the CSN is to construct plasmon-enhanced upconversion nanoparticles and to explore bioimaging applications. I am aiming for an academic route right now. I am hoping that after my PhD and postdoc, I will find a teaching/researching position somewhere close to my parents and family.

I would describe myself as an experimentalist. For one thing, I like to do and be good at chemical experiments. For another thing, I would like to go out of my comfort zone and try new and challenging stuff in the world. I have a long to-do-list and I have only finished a small fraction of it, such as a 10k marathon, long-distance cycling, insect eating and scuba diving. The list is still expanding and hopefully I could finish most of the list before I turn 35. I am also a member of Postcrossing, which is a postcard exchange project that invites everyone to send and receive postcards from random places in the world. I have sent and received over 200 postcards to/from all over the world, and it's my way to stay connected to the world. :)

Hi, my name is **Kelly (Yongqian) Zhang** (**Hamers** group). I grew up in Nanjing, China and moved to the states about 6 years ago. My early interest in science started with a science fiction Japanese anime. In the show, an 18-year-old female chemist from a mysterious organization developed a drug that degrades



bones, teeth, muscles, etc. (except for the nervous system) back to the childhood period, thus maintaining youth forever. When I was 7, I thought it would be super cool if I could make something like that one day and that's how I got into science (now I realize that project may take a bit to do). I received my B.S. in chemistry from Ithaca College in upper east New York. My undergraduate research was focused on using electrochemical deposition methods to form protective layers on Cu_2O surfaces to enable its ability for hydrogen evolution. I joined the **Hamers** group in the Chemistry Department at the University of Wisconsin-Madison in 2014. My current focus within the CSN is to develop nanomaterials (nanodiamond and lanthanide-doped NMC) for imaging and tracking applications in complex systems.

Outside research, I like to do K-pop dancing, singing, yoga and walking around randomly to discover the beauty and peace of nature and in humanity (yeah I know...I am from Ithaca). I think one of the most interesting things I did is probably modeling in a couple of small fashion shows in college.

Jared Bozich (**Klaper** group). I am the definition of a Wisconsin native. I spent the majority of my life in SE Wisconsin but also a few years up in the north woods in the Eagle River area. I think there is a reason I have never left Wisconsin (hopefully never will) and that reason is simply that Wisconsin is beautiful. Whether it is the changing seasons or thousands of lakes and acres of forest, Wisconsin has always captivated me.

Jared (on the left) and a friend, fly fishing in the Milwaukee River.

In fact, falling in love with everything that Wisconsin has to offer is one of the main reasons I pursued my undergraduate degree at the University of Wisconsin-Milwaukee (UWM) where I received a B.S. in Conservation and Environmental Sciences. This degree helped me to understand the various ways I could protect everything I love about Wisconsin. One course in this degree stood out, which was a course on environmental health, taught by my current PhD advisor, **Rebecca Klaper**. Her class introduced me to the exciting field of environmental toxicology where I soon found myself after I graduated and joined her lab and the CSN. Currently in the Center, I am working to understand the specific properties that cause nanomaterials to be harmful or harmless using the aquatic invertebrate, *Daphnia magna*.

When I am not working in the lab or reading about science at home, I am out on the lakes or in the streams fly fishing for musky, bass or trout. I consider fly fishing a science too and just like my toxicology experiments, it requires one to pay attention to the details. It is a sport that I am very passionate about and if you ask me about fly fishing my eyes will light up and I probably won't stop talking, so be careful!

CSN Productivity

CSN research is the focus of the feature article in the latest issue *of Badger Chemist*, the official alumni newsletter for the Department of Chemistry at UW-Madison. The article, "Small-scale Science Leads to Large-scale Collaboration," highlights CSN graduate student **Mimi Hang**'s experience in the CSN (and includes cameos from **Arielle Mensch** and **Bob Hamers**).

CSN Talks and Presentations

Joe Buchman and **Sunipa Pramanik** (**Haynes** group) presented a poster titled "Assessing the Environmental Toxicity of Nanomaterials" at the University of Minnesota "Industrial Partnership for Research in Interfacial Materials & Engineering (IPrime)" annual meeting.

Mike Curry was was the keynote speaker for the 6th grade graduation ceremony at Tuskegee Public School in Tuskegee, AL. Mike said "This was the best outreach experience that I have had in my career so far…..simply awesome!"

Bob Hamers was the keynote speaker at the 90th ACS Colloid & Surface Science Symposium (Harvard University, June 6, 2016) and the 8th International Nanotoxicology Congress (Boston, MA, June 3, 2016), where he gave presentations about "Transformations and biological impact of emerging energy storage nanomaterials."

Joel Pedersen gave a presentation titled "Influence of membrane-associated proteins on nanoparticle interaction with model biological membranes" at the 90th ACS Colloid & Surface Science Symposium (Harvard University, June 6, 2016). His co-authors on the abstract were **Eric Melby**, **Tom Kuech**, **Arielle Mensch**, **Marco Torelli**, **Lisa Jacob**, **Ariane Vartanian**, **Cathy Murphy**, and **Bob Hamers**.

New CSN Capabilities

We have created two new Suggestion Ox links for providing anonymous feedback to CSN staff, one for our Managing Director (Mike Schwartz) and another for our E/O Director (Miriam Krause). These links will provide anonymous feedback that only Mike or Miriam will see. You can still provide anonymous feedback directly to Director Bob Hamers or Associate Director Christy Haynes, as well. These links are also available at the bottom of the newsletter or in the Center Resources section of the CSN website.

Opportunities

The CSN is having a t-shirt design contest! Each group can create a t-shirt design by using booster.com or customink.com. Send your designs to Miriam by June 17. The winning design will be featured on "official" CSN t-shirts!

CSN Professional Development Activity - June 8 (3:00-4:30 p.m. CST) - Dr. Mearah Quinn-Brauner, Assistant Director of Student Career Advising at Northwestern - *Chemistry Resume Workshop: Communicate Your Relevant Skills and Accomplishments*. Stay tuned for the WebEx invitation; the presentation will also be recorded for those unable to attend.

Eligibility changes for NSF GRFP. The NSF recently announced a change in the rules about who can apply for the Graduate Research Fellowship Program (GRFP). The announcement says, "Effective as of the 2017 competition (Fall 2016 deadlines), NSF will limit graduate students to only one application to the GRFP, submitted either in the first year or in the second year of graduate school." This does not affect those who are applying (or have applied) as undergraduates.

Looking Ahead

Year 2 Planning/Budgeting: PIs should update project planning documents and Year 2 student % CSN effort by Friday, June 10th. Follow the instructions and links below to update the projects document and % CSN effort spreadsheet:

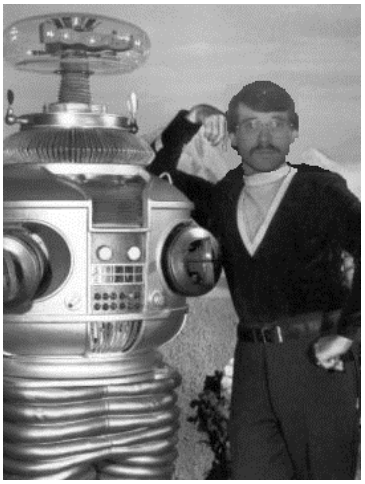
(1) Projects document - *In preparation for Year 2 funding allocations, all faculty must check to make sure that their project summaries are current and reflect planned research activities over the next 6-12 months*. Please make sure that the document appropriately reflects the projects and students who will be working on these projects. The Executive Committee will be looking these over to be sure we have the right balance of effort on different projects and to see if there are any shifts in emphasis, direction, or funding that need to be made. The projects document is available here: **CSN Projects COMBINED May 2016.**

(2) Percent CSN effort spreadsheet - *Additionally, each PI should update the student effort in a separate spreadsheet listing all CSN projects*. The spreadsheet will be equivalent to the "accountability" document that was last updated in 2015 (at the beginning of Phase II). Please update the % CSN effort information to reflect current personnel working in your lab using this spreadsheet: **Projects Percent Effort May 2016**.

Also, please update your talks/presentations for the annual report by Friday, June 10th, if you haven't already done so. Include all presentations that have been accepted **through August 31st** by using this Google form - **New CSN Presentations**.

If you have already entered your talks/presentations via the annual report document or the CSN website, you do not need to enter them again (similarly, you only need to add new talks/presentations to the Google form – Mike will make sure talks are added to all appropriate documents from wherever you entered them).

If you have any questions about the projects documents or annual report information, please contact Mike via email (mpschwartz@wisc.edu) or phone (608-263-7457).



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).

Newsletter topic suggestions (awards, highlights, lab exchanges, publications, etc.)**:** link

CSN Documents and Downloads

- **CSN calendar** (RFA, All-hands, professional development)**:** link
- **CSN Operations Guide:** link
- **CSN participants list** (Names, group, and email addresses)**:** link
- **List of all CSN researchers and project names** (google-sheet)**:** link
- **Approved projects for all students/postdocs:** link
- **Download the Webex player (choose the player for .ARF files)**: link

CSN Request and Reporting Forms

- **Requests for the Executive Committee:** link
- **Report lab exchange activities:** link
- **Nanoparticle availability** (Listing of NPs available center-wide)**:** link
- **Suggestion-ox** (completely anonymous comments/suggestions to CSN staff):
  Director (Bob): link
  Associate Director (Christy): link
  Managing Director (Mike): link
  E/O Director (Miriam): link