

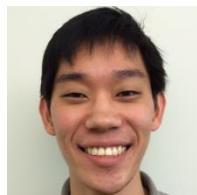
What's happening in the CSN?

May 24, 2016

Volume 1, Issue 8

Celebrations

Milestones and awards



Congratulations to **Gene Chong** (**Hernandez** group) for passing his candidacy exam. After the move from Georgia Tech, Gene will be a doctoral student at Johns Hopkins!

Mimi Hang (**Hamers** group) took second place in the UW-Madison Department of Chemistry Graduate Student-Faculty Liaison Committee Spring Poster Session. Congratulations Mimi!



CSN student member **Md Shariful Islam** (**Curry** group) has been accepted to the Ph.D. program in Chemistry at Georgia Tech University. Md will begin the second phase of his graduate career starting fall semester, 2016.

Meet the Students/Postdocs

Aiesha Ethridge (**Curry** group). I grew up on the east coast of the USA (and moved around way too much - but stayed in that vicinity), and decided to travel south to get away from the snow. My undergraduate work was in Chemical Engineering/Pre-Med at Tuskegee University. I make metallic nanoparticles in the **Curry** group. Outside of research, I enjoy shopping and eating good food. I grew up thinking I was a princess (see picture), and still try to live up to that lifestyle even though the lab life doesn't allow for dresses and heels. I got interested in science by watching PBS Kids. I'm not sure what I want to do after I get my Ph.D., but I hope it's something that makes me happy.



Playing dress up in a boutique before getting cut out of this dress (Literally!)

Ben Frank (**Fairbrother** group). I was born in Delaware, but have my first memories of growing up in Marlborough, Massachusetts. I was the first of four kids in my family, and growing up as an older brother to so many siblings helped shape me into who I am today. Both of my parents went to graduate school for chemistry at the University of Maryland, which strongly influenced my decision to pursue work in

chemistry. My father currently works in an industrial position, which has granted me the opportunity to work internship positions at a couple industrial companies. This exposure showed me that I am particularly interested in following suit in becoming an industrial chemist.

To reach this goal, I attended the University of Pittsburgh for my undergraduate studies where I earned a degree in chemistry with a concentration in bioscience. My undergraduate research at Pitt was done with Professor Geoffrey Hutchison, and involved the patterning and analysis of piezoelectric organic self-assembling monolayers. Currently, I am finishing up my second year as a graduate student in Professor **Howard Fairbrother's** group at Johns Hopkins University. My contributions to the center involve looking at how the surface functionalization of nanocellulose alters its biodegradability both as a powder and when incorporated into polymer nanocomposites.



Photo by Frank Jacobs III

This is a picture of me next to my girlfriend, Anna, and my family in Philadelphia. I am the third from the left. (My other sister is missing from this picture, but that's on her...)

Outside of lab, I enjoy reading and relaxing as well as playing a variety of sports, including soccer, racquetball, and volleyball. Now that summer is approaching, I hope to be able to spend some time at the beach when I can find time to take off from lab as well as explore some of the hikes offered in Maryland. After earning my PhD, I hope to work in industry thanks to the exposure that my internships at Particle Sciences Incorporated and FMC have granted me. Most of my experience has involved working with polymer composites, and I hope to specifically focus on that area in the future as well.

Xi ("Cassie") Zhang (Murphy group). Because of one of my favorite characters in a British TV show and the pronunciation of "Xi" (like the letter "C"), I gave myself the English name Cassie. I was born and grew



up in the small town of Xiapu in Fujian Province, China. The region is mountainous and near the ocean, which is very different from Urbana-Champaign, which is just flat and cornfields. My undergraduate major was clinical pharmacy at Fujian Medical University, aiming to provide patient care that optimizes the use of medication and promotes disease prevention, health and wellness. After being a firsthand witness of the suffering of patients in hospitals, I changed my major to pharmaceutical analysis during my Master's study to do research to improve disease diagnostics by developing optical and electrochemical biosensors for the detection of cancer-related biomarkers and biotoxins.

Currently, I am a first-year student in the **Murphy** group, where I am working to understand and predict biological impacts of engineered gold nanoparticles by finding correlations between a nanoparticle's ability to bind lipids *in vitro* and

cause membrane disruption *in vivo*. My majors are changing from practical to fundamental, but my passion for exploring new territory has never changed.

Besides my parents, the only thing I miss is the fresh and delicious seafood in my hometown. In my spare time, I enjoy writing, singing, and watching films or TV series, especially thrillers and suspense. I love cats, and just like cats, I am a “lazy” lady who doesn’t like sports at all. I might be very introverted sometimes but very bold and eager to have different experiences. One of my lifelong goals is travelling around the world with my parents to see this wonderful world God has created.

Arielle Mensch (Hamers group). I grew up in a small town in upstate New York called Waverly. After finishing my high school degree I moved on to attend St. John Fisher College in Rochester, NY. There I started as a biology major convinced I was going to be a medical doctor and quickly switched after one semester of biology to a chemistry education major. That track lasted until my senior year when I decided that a straight chemistry path followed by graduate school was the route that I wanted to take. This led me to the **Hamers** group at Madison, where I started graduate school working with the CSN back in 2012. I’m currently a 4th year graduate student studying the interactions of nanoparticles with supported lipid bilayers in the presence and absence of natural organic matter – working closely with the **Pedersen** group.



I have always been interested in math and science, with my earliest scientific memory being from the 6th grade science fair when I attempted to put both female and male mice through a homemade maze to answer the age old question “Are girls or guys smarter?” This experience won me a first prize ribbon and an encounter with a mouse that I never want to relive. Throughout my education I’ve had a ton of passionate and dedicated science teachers and professors that encouraged me to pursue science and have contributed to my future career path. I plan to teach and mentor undergraduate students at a primarily undergraduate institution once I finish grad school.

While in high school, I traveled up and down the east coast playing basketball and spent time on my school’s softball team. Now my softball “skillz” are tested every Saturday with some other members of the chemistry department on a slow pitch team. We’ve won two games so far (I won’t tell you out of how many, but it’s a lot...)! And my basketball passion has turned into more of a college basketball obsession. I’m a Syracuse fan at heart, but while in Madison my loyalties obviously lie with the Badgers. Also, I must brag that I am the reigning Hamers group March Madness bracket champion (feel free to ask Mike where he finished...). I also enjoy spending time with friends and family, tailgating before Badger football games, cooking new foods, travelling - especially to warm places, reading, and binge watching shows on Netflix.

CSN Talks and Presentations

Joel Pedersen's work in the CSN was recently featured on the UW-Madison College of Agricultural and Life Sciences website. Joel also spent some in the lab for the story, and his students are glad to report that he didn't blow anything up. You can read the full story [here](#).



"This is kinda fun!"



Christy Haynes, on the other hand, did blow things up recently. Which is cool, since she was performing an outreach show called "Energy and U" for ~1500 kids who were visiting the University of Minnesota to learn about the first law of thermodynamics and energy conversions. Many Haynes group students volunteered to support the event, including Autumn Qui, Sunipa Pramanik, Natalie Hudson-Smith, and Bo Zhi.

Bob Hamers was recently interviewed on WISC-TV in Madison for a story about Silatronix, a company that he started with Prof. Robert West to, among other things, reduce the risk of things blowing up. More specifically, Silatronix is developing silicon-based electrolytes that improve the performance and safety for lithium ion batteries. You can read the story and find the full interview [here](#).



"Did I ever tell you about the time I started a company so stuff *wouldn't* blow up?"

Opportunities

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*. You can see the presentation via CSN WebEx.

Looking Ahead

Annual Report and Year 2 Planning/Budgeting

Please remember that all CSN faculty must contribute a number of items for the annual report and to get ready for budgeting for Year 2. This information was sent previously, but **you can find a summary of tasks that PIs need to complete** [here](#) (and on the next page). [This spreadsheet](#) summarizes what information each PI needs to provide (other than the scientific narrative of the annual report), with links for where to

provide it, and also includes a spot for you to indicate when you have completed each task so that Bob and Mike won't have to nag you if you get things done on time.

Upcoming Annual Report Deadlines

Friday, May 27 (THIS FRIDAY). Faculty to update the following (links included):

1. "[Participants Spreadsheet](#)". Summary of research activities, effort, and funding sources.
2. "[Set of 10 Questions](#)". The 10 questions include (1) detailed information on all collaborators, (2) any interactions with people/organizations outside of the CSN, (3) anyone who has graduated from the center (including undergrads), and (4) other detailed information about how your group is contributing the center.

Friday, June 3. RFA leaders and EC members - Get info from PIs to update project summaries/paragraphs.

Friday, June 17. RFA leaders and EC members send "finalized" annual report sections to Bob.

If you think you have something to contribute to the annual report and have not been contacted by the person in charge of a specific section, you might want to consider contacting the lead writer to make sure they know what you are able to contribute. Here are the sections and section writers:

Intro (3 pages): Bob
Story 1 NMC (3 pages): Bob
Story 2 Charge density (2 pages): QC
Story 3 Membranes (2 pages): Joel
RFA1 (4 pages): Cathy/Howard
RFA2 (3 pages): Joel /Franz
RFA3 (3 pages): Rebecca/Galya
Prof. Development (2 pages): Miriam
Broadening Participation (2 pages): Rigoberto
Informal Science Communication (2 pages): Miriam
Management (2 pages): Christy
Innovation (2 pages): Bob

Year 2 Planning/Budgeting: Updating Project Planning Documents and Year 2 student % CSN effort. Complete by Friday, June 10th. There are two parts to this, just as we did in year 1:

1. *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* (the information that was provided to Mike via a Google Form in March). 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 and shifts in emphasis, direction, or funding that need to be made.
2. Additionally, *we will be updating 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 students working in your lab using the new spreadsheet that Mike created (link provided below).

Please (1) update your projects descriptions to reflect current projects and personnel and (2) complete the % CSN effort spreadsheet for each of the students in your lab. To simplify the process, Mike has created Google documents with as much information filled in as possible. **You can find the links to both documents here:**

(1) **“CSN Projects COMBINED May 2016”** - A Google document with all projects descriptions listed by lab (in alphabetical order). Update your projects based on personnel who will be conducting the work moving forward – [link](#)

(2) **“Projects Percent Effort May 2016”** - A Google spreadsheet with the projects listed as described in the projects document above (with additional funding information included if already provided for the annual report). Fill out the % CSN effort columns and update the funding information based on personnel who will be doing the work moving forward - [link](#)

If you have any questions, please email Mike (mpschwartz@wisc.edu).

Safety in the CSN

To ensure everyone in the CSN has a basic understanding of how to work safely with nanomaterials, we are **requiring** all CSN students and postdocs to complete the following and verify that they have done so:

1. Watch the CSN nanomaterials safety video that Bob presented in January. You can find links here (remember that you will need the [WebEx viewer](#) to watch the video): [video](#) and [slides](#)
2. Read the safety document provided by the California Nanosafety Consortium of Higher Education, titled “*Nanotoolkit: Working Safely with Engineered Nanomaterials in Academic Research Settings*” – [download PDF](#)
3. Complete all chemical, biological, or other safety training modules required by your local institution.

Please fill out the Google form verifying that you have watched the video, read the safety document, and completed your lab safety training at your university, which you can find here: [link](#)

You can also find links to safety information (including links to videos and other resources) in the Members section of the CSN website, on the “[Center Resources](#)” page.



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 calendar (RFA, All-hands, professional development): <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>.

Request Forms

- 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/Rz8FllXnGy>