

What's happening in the CSN ?

January 2016 Edition

Moving on, Moving up: Congratulations to **Marco Torelli** (Hamers group) who defended his Ph.D. thesis in December. Marco has accepted a position with **Adamas Nanotechnology**, a start-up company that is making nanodiamond with N_v centers for biological and biomedical research. Since Adamas is one of our Innovation Council companies, there a good chance we'll see Marco in years ahead.

Congratulations to **Lisa Jacob** (Murphy group) who defended her M.S. thesis in December. Lisa will transition to training for the healthcare industry; we wish her the best.



Dr. Marco Torelli and Bob Hamers

Welcome to new CSN members! We have many new first-year graduate students who have joined the CSN. These include **Stephanie Mitchell** (Carlson), **Katya Konstantynova** (Carlson), **Dongyue Liang** (Cui), **Dong Fang** (Cui), **Donald H. White** (Curry), **Kyle Chesney** (Geiger), **Gene Chong** (Hernandez), **Liz Laudadio** (Hamers), **Catherine Alvarez** (Hamers), **Natalie Hudson-Smith** (Haynes), **Xu (Mary) Huang** (Mason), **Fred Idesis** (Murphy), **Daniel Hofmann** (Murphy), **Xi (Cassie) Zhang** (Murphy), **Meng Wu** (Murphy), **Isabel Foreman-Ortiz** (Pedersen), **Kyoungtea Kim** (Pedersen) . Please welcome all our new members to the CSN !!

Congratulations! CNS graduate student **Aiesha Ethridge** has been selected to receive a travel award for the 2016 Emerging Researchers National (ERN) Conference in STEM. Aiesha's presentation is entitled, **Construction of a Solid State Nanoreactor for the Synthesis and Characterization of Large Scale Metallic Nanoparticles.**



Aiesha Ethridge

Good news! Congratulations to **Rigoberto Hernandez** for being awarded a large allocation of computational time (4.9 million hours) through NSF's Advanced Cyberinfrastructure (ACI) Program's "**XSEDE**" program (Extreme Science and Engineering Discovery Environment. NSF estimates the computational resources have a value of exactly \$174,238.11

Good news! Congratulations to **Michael Curry** for being awarded a joint NSF Research Experience for Teachers (RET) grant with Purdue University. The RET Site will feature exciting summer research on Sustainable Electronics for STEM teachers through the leveraging of expertise of engineering scholars at both Purdue University and Tuskegee University.

CSN in the spotlight:

- **Joel Pedersen** and **Christy Haynes** guest edited a joint ["virtual issue"](#) between Chemical Research in Toxicology, ACS Nano, and Nano Lett on the topic of Nanoparticle Toxicology (available 11/01/2015).
- The CSN paper "Impacts of gold nanoparticle charge and ligand type on surface binding and toxicity to Gram-negative and Gram-positive bacteria", led by **Vivian Feng** was identified as one of the [25 most downloaded Chemical Science articles](#) between July-September 2015.



Eric Melby



Autumn Qiu

- **Eric Melby's** blog post, "What's in a scientific publication's name? One research article title explained" and **Autumn's Qiu's** blog post "Using gene expression to learn about nanoparticle toxicity" were both recognized as ScienceSeeker Editor's Picks. **Congrats to Eric and Autumn!**

- **Ian Gunsolus** wrote a very nice review article for Analytical Chemistry, titled "Analytical Aspects of Nanotoxicology":

<http://pubs.acs.org/doi/abs/10.1021/acs.analchem.5b04221>.

- **Bob Hamers** delivered one of the plenary talks at the Sustainable Nanotechnology Organization meeting in Portland, OR, highlighting CSN's unique approach to nanomaterials and the environment.

- **Christy Haynes** delivered a talk on CSN research at the 2015 SNO meeting titled "Biological and Ecological Toxicity of Engineered Nanoparticles" with 13 listed co-authors.

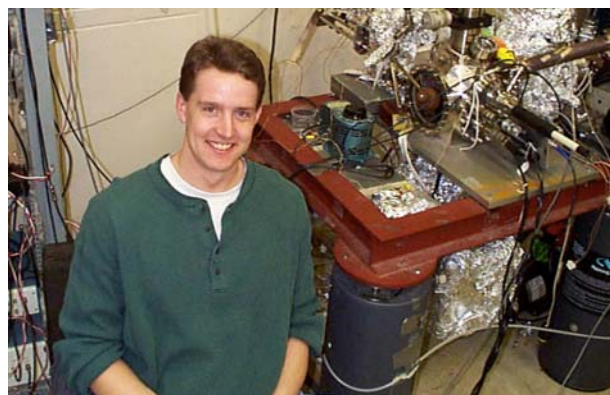
- **Cathy Murphy** delivered three three talks (two invited, one contributed) on gold nanoparticles at PacifiChem 2015 in Honolulu, Hawaii.

- **Cathy Murphy** was listed by Thomson Reuters as one of the most highly-cited researchers in the world for 2015, both in chemistry and materials science (<http://highlycited.com>). That is really an achievement of the past and present Murphy group!



Ian Gunsolus

Managing Director: The Executive Committee voted unanimously to make an offer to **Michael Schwartz** as our Managing Director. While the paperwork is still in progress, Mike indicated that he would accept the position. Thanks to all of you who participated in the interviews. The impression you made on Mike and enthusiasm for the center's research were very helpful in helping him decide to accept



Mike Schwartz in the STM lab, ca. 2002

the position. Mike got his Ph.D. degree with Bob Hamers in 2003 followed by postdoctoral work with Mike Sailor (UCSD) and then Kristi Anseth (Colorado). Mike has been back in Madison for several years working with Bill Murphy. We are looking forward to having Mike on the CSN leadership team !



Dr. Michael Schwartz

Electronic Notebook: We're making good progress toward identifying a good **electronic notebook** solution. Many students have been involved with evaluating different options. We appear to be converging on a good solution and hope to have a final decision next week.

How are we doing? 3-month Check-in: All of the PIs contributed a 3-month check-in document, as an informal assessment of progress since the start of Phase II. While things are generally on track, there are some areas where greater attention is needed, particularly making sure that sufficient quantities of

nanoparticles of different types are being supplied center-wide, and that we can match supply and demand appropriately. We will be developing supply and demand record-keeping system. RFA leaders will be providing feedback to the individual PIs on the EC's assessment of things to help bring everyone up to speed as quickly as possible.

Projects and Milestones: At our April review, we will be assessed on progress based in part on the October planning document and progress during the first 7 months toward our 1-year Milestones. All CSN participants should remember that your effort should be commensurate with the projects and effort described in the planning document that we all approved in October. Deviations will occur, but major changes in scope or emphasis should be done in consultation with the RFA leaders and should be accompanied by modifications to the planning document. (That is, we can't have 75 people going willy-nilly in different directions).

In case you need a reminder, the two documents are available at the links below:

<http://tinyurl.com/hxfazkl> (Students and projects, google-sheet)

<http://tinyurl.com/hnp3whq> (detailed project descriptions, google-doc)

Nanoparticle Rapid Screening Capability: While in many biological experiments it's essential to have the materials very well characterized ahead of time, the new RFA3 capability for rapid-screening also makes it possible, even attractive, to do rapid screening of different nanoparticles before going through extensive and time-consuming characterization. This may allow us to use rapid screening of many different NP variations to quickly evaluate trends and allow us to use biological screening to guide the design of NPs.

April Review and All-Hands Meeting: Please be sure that **April 17-19** are marked off on your calendar for the April Year 1 Review at UMD-Baltimore County. We are anticipating that as many as 4-5 NSF program managers will likely be in attendance, including the Chemistry Division Director. Our External Advisory Board and some of our Innovation Council members will be there as well. Monday April 18 will be a review with our External Advisory Board (and NSF staffers) and will be much like an extended version of our Reverse Site Visit, focusing on formal review of progress to date. The EAB will provide a report summarizing their view of our progress thus far, so it's important for us to present well. Tuesday April 19th will be meeting with our Innovation Council and doing professional development, while the Executive Committee will be doing planning for Year 2. Pulling off an event like this is a lot of work, and there will be a number of reports and other activities in preparation for the April review.

October All-hands Meeting: Our Fall All-Hands meeting will be Friday-Saturday **Oct. 21-22**, ending around noon on Oct. 22 to enable people to fly out if necessary. Some optional team-building activities may be planned after that for those who prefer to stay an extra day. Stay tuned for more information..

October PNNL Workshop: Galya will be hosting a 2-day Hands-on workshop **October 19-20**, just before the All-hands meeting. Attendance will be limited to about 30 people. More details will be available shortly.

Student/Postdoc Seed Projects: The CSN will be supporting student/postdoc initiated seed projects. Seed projects are intended to allow students/postdoc to conduct research in a new area of CSN for a period of several months. We are hoping these will engage with our Innovation Council as well. For more information, contact any student board representative.

Lost in Cyber-space

Where can I find things ?



If you don't know what this picture is you'll have to search through classic 1960's TV programs...

Links to frequently requested CSN documents and information sources

All these documents (and more !!!) are also available on the susnano.chem.wisc.edu web site, but only after you log in. Contact [Miriam](#) if you don't know how to log in.

CSN Operations Guide: <http://tinyurl.com/zyw9k4h>

Form to Request Discussion by the Executive Committee: <http://tinyurl.com/z9eftvh>

Center-wide calendar of CSN Events: Google-calendar. Contact Miriam for details.

Participants list: Names, group, and email addresses: <http://tinyurl.com/jrrkp4b>

Upcoming CSN meetings (RFA, All-hands, Professional Development) <http://tinyurl.com/zeukpus>

Nanoparticle Availability: Listing of NPs available center-wide: <http://tinyurl.com/goathu7>

Suggestion-ox (send completely anonymous suggestion to Bob, with all of sender's information completely scrubbed: <https://www.suggestionox.com/response/BeNBi6>

Form to Report Lab Exchange Activities: <http://tinyurl.com/jxw5jh9>

List of all CN students and project names (google-sheet) <http://tinyurl.com/hxfazkl>

Detailed, approved projects for all students/postdocs: <http://tinyurl.com/hnp3whq>

Newsletter topics: To suggest a topic for the newsletter or to add information to be included in the next newsletter (e.g., an award, highlight, etc.) <http://goo.gl/forms/mDDERVhfU9>