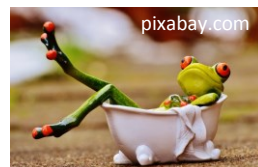


## What's happening in the CSN?

June 16, 2017

Volume 2, Issue 8

Check out the CSN's new video, "[Introduction to the Center for Sustainable Nanotechnology](#)," featuring faculty and students doing awesome science throughout the Center!



## Celebrations



**We did it!** The Year 2 Site Visit is in the books, and everyone did an amazing job!

## Welcome to New CSN Members

The CSN welcomes **Linus Micah Pomerantz (Krause and Pomerantz group)**. Our newest member weighed in at a healthy  $3.175 \times 10^{12}$  nanograms!

**Laura Olenick (Geiger group)** and **Sara Mason** are both expecting to add to the CSN family later this summer, too! Sara is due in August and Laura plans to defend her thesis in September before having the baby in October (that's motivation)!



The CSN is happy to welcome summer undergraduate researchers, including CSN REU/REV students **Megan Taylor** (Tuskegee University, Hamers group), **Katrina Carlin** (New College of Florida, Fairbrother group), **Brenda Gonzales** (University of Texas-Rio Grande Valley, Pedersen group), **April Laranang** (University of Maryland, Baltimore County, Klaper group for summer, Rosenzweig group during the academic year), **Anaeli Shockley** (University of Puerto Rico-Mayagüez, Haynes group), **Liz Hernandez** (Illinois State University, Haynes group), **Ben Reynolds** (Colorado College, Carlson group), **Leopoldo Posada** (University of Texas-Rio Grande Valley, Rosenzweig group), **Nikita Rozanov** (Oregon State University, Hernandez group), and **Ben Catalano** (Rochester Institute of Technology, Mason group), **Kasey**

**Rivera** (St. Thomas University, Hamers group), **Nafisa Ibrahim** (The College of St. Scholastica, Hamers group), **Dhiman Ray** (Indian Institute of Science Education and Research, Kolkata, Cui group), and **Xinyu Gu** (University of Science and Technology of China, Cui group). Also new to the CSN are **Thomas Pho** (Feng group), **Nikki Hoang** (Feng group), **Tomoki Kato** (Hamers group), **Davis Long** (Haynes group), and **Eileen McIntire** (Haynes group). Welcome everyone!



**Top: CSN students, faculty, and staff at the 3M Innovation Center. Left to right. Standing, left side:** Megan Taylor, Vivian Feng, Autumn Qiu, Thomas Pho, Fred LaPlant, Nikki Hoang, Rodrigo Tapia Hernandez; **Kneeling:** Katrina Carlin, Kasey Rivera, Brenda Gonzales, April Laranang, Nafisa Ibrahim. **Standing, right side, front:** Anaeli Shockey (Haynes group), Liz Hernandez (Haynes group), Ben Reynolds; **Standing, right side, back:** Mike Schwartz, Leopoldo Posada, Nikita Rozanov, and Ben Catalano.



**At the UM Nano Center**  
Run ET, run!

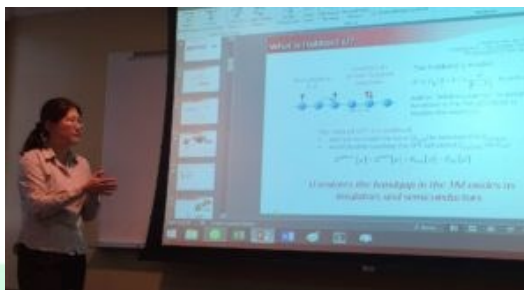
REU/REV students gathered in Minneapolis to meet each other and learn a little about the Center. They visited the 3M Innovation Center IC member and 3M scientist **Fred LaPlant**, where they learned that Post-it notes were no accident (hint: collaboration and persistence pays off!), among many other amazing things. They also toured a clean room at the University of Minnesota Nano Center (seen in their stylish clean suits above; Thanks to the Nano Center's **James Marti**).

**Good news!**



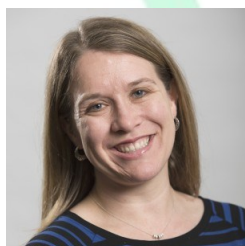
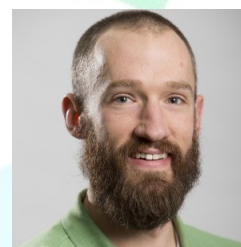
## Milestones and awards

Congratulations to **Xu “Mary” Huang (Mason group)** for successfully defending her Ph.D. thesis! She is the second Ph.D. student to graduate from Sara’s lab at the University of Iowa. The title of her thesis is "Extending Accurate Density Functional Modeling for the study of Interface Reactivity and Environmental Applications," and her graduate academic committee was unanimous in their enthusiasm for her accomplishments and work!



**Sara Mason** got the official letter that her tenure and promotion case has been approved at all levels, so her title will be “Associate Professor” beginning in August, 2017! Check out the official announcement [here](#). Congratulations Sara!

**Eric Melby (Orr group)** has accepted a tenure track chemistry professor position at Columbia Basin College (a community college in Pasco, WA) to begin this fall! Eric said “I am really excited about this opportunity as the college serves a large minority and first generation student population, they are moving towards offering Bachelor’s degrees in chemistry, and I will be running a research program there.” Congratulations Professor Melby!



**Christy Haynes** was named a finalist in the Blavatnik Awards for Young Scientists competition. She is one of 10 chemists being considered for the award; the final announcement will be made after a science symposium and gala in September 2017. Find out more about the award and Christy’s selection [here](#). Congrats Christy!

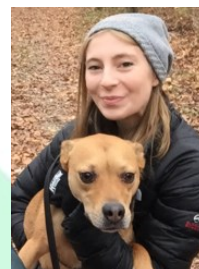
Congratulations to **Kyle Johnson** and **Katie Landy (Haynes group)**, who were both chosen to receive the University of Minnesota’s 2017 David A. and Merece H. Johnson Scholarship for outstanding achievement in undergraduate research, as well as overall scholastic excellence!





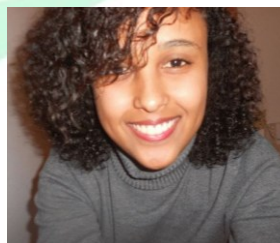
Congrats to **Sunipa Pramanik (Haynes group)**, who won a best poster prize at the 2017 University of Minnesota iPrime conference!

**Jo Machesky** was awarded a Northwestern University Undergraduate Research Grant to do summer research in the **Geiger group**. She was also selected to present her CSN work on NMC at Northwestern University's Undergraduate Research and Arts Exposition, which she did in May. Congrats Jo!

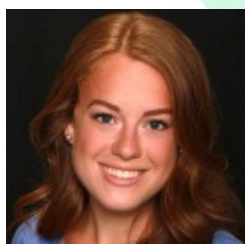


CSN Graduate Student **Donald White (Curry group)** was received the 2nd Place Award in the graduate poster competition at Tuskegee University's Seventh Joint Annual Research Symposium (JARS 2017). Congratulations, Donald!

Former CSN REV student **Alec Kinczewski (Geiger group)** has been accepted into Brown University's Alpert Medical School, where he will also enter the Masters in Population Medicine program to fulfill his goal of becoming a physician-activist.



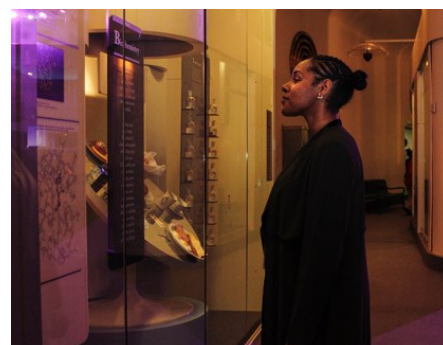
**Hilena Frew (Feng group)** graduated with ACS-BS degree in Chemistry, and is entering the PhD program in Chemistry at Georgia Tech this summer. Congratulations to Alec and Hilena, and best of luck!



Congratulations to **Stephanie Mitchell** for passing her Oral Preliminary Exam! She is now a PhD candidate!

### ***CSN in the News***

CSN grad student **Alicia McGeachy (Geiger group)** was featured by the Northwestern Graduate School in an article entitled "Alicia McGeachy: Finding Balance between Science and Outreach," which emphasizes how outreach work complements the more traditional components of scientific doctoral training. Check out the online article [here!](#)

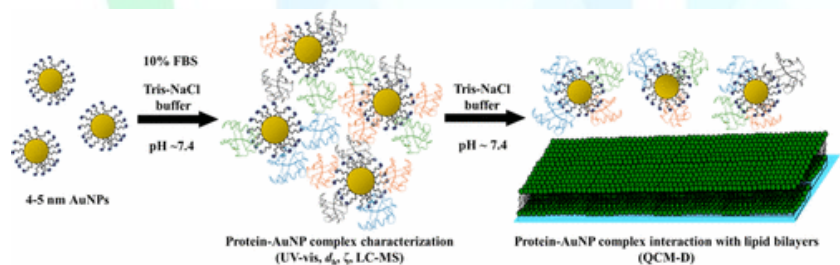




Donald White and Mike Curry were again featured for their recent discovery of a way to dissolve cellulose in organic solvents (we're going to need another stock photo!), this time in *The Journal of Blacks in Higher Education* ("[Tuskegee University Researchers Design Strong Biodegradable Plastics](#)") and *Controlled Environments* magazine ("[Nanotechnology Leads to Breakthrough Plastics Discovery](#)"). Congrats Donald and Mike!

### CSN Productivity

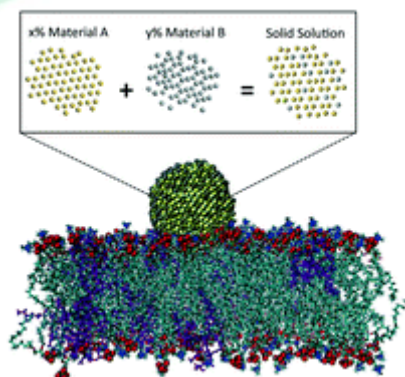
**Susan Pham's** (2016 REU student in **Christy Haynes** group) paper, entitled "Carbon Dots: A modular activity to teach fluorescence and nanotechnology at multiple levels," was accepted in the *Journal of Chemical Education*. The article was inspired by a 2016 REU blog pitch, and included co-authors **Josh Kuether, Miranda Gallagher, Rodrigo Tapia Hernandez, Denise Williams, Bo Zhi, Arielle Mensch, Bob Hamers, Zeev Rosenzweig, Howard Fairbrother, Miriam Krause, Vivian Feng** and **Christy Haynes**. Read the online article [here](#).



**Eric Melby's** (Orr group) paper, entitled "Cascading effects of nanoparticle coatings: Surface functionalization dictates the assemblage of complexed proteins and subsequent

interaction with model cell membranes," was accepted by *ACS Nano*. Congrats to Eric and his co-authors **Sam Lohse, Ji Eun Park, Ariane Vartanian, Rebecca Putans, Hannah Abbott, Robert Hamers, Cathy Murphy** and **Joel Pedersen**! Read the online article [here](#).

**Joe Bennett's** Highlight, entitled "Research highlights: Comparing the biological response of nanoparticle solid solutions," was accepted by *Environmental Science: Nano*. Congratulations to Joe and the rest of his Highlight's co-authors, **Caley Allen, Sunipa Pramanik, Miranda Gallagher, Natalie Hudson-Smith, Diamond Jones, Miriam Krause** and **Sara Mason**. Read the online article [here](#).





## Lab Exchanges

**Natalie Hudson-Smith (Haynes group)** and **Jaya Borgatta (Hamers Group)** are hard at work at the Connecticut Agricultural Experimental Station (below), shown with collaborator **Wade Elmer** (left, front) and visiting undergraduate researchers Ben (behind Wade) and Taylor (thumbs up).



Nanoparticles + Plants = ?

## CSN Talks and Presentations

**Christy Haynes** gave a *TEDxEdina* talk, entitled “Nanomaterials Are Everywhere; How Do We Make Them Safe?” The presentation is a great overview of how CSN science has the potential to make a big impact, so check out the YouTube [link](#) if you haven’t already! Christy also gave a guest lecture on CSN research for a University of Minnesota course, “Biocatalysis and Biodegradation.”



**Bo Zhi** and **Sunipa Pramanik (Haynes group)** presented their work at the University of Minnesota IPrime (Industrial Partnership for Research in Interfacial & Materials Engineering) conference.

## Latest from Sustainable Nano

See [sustainable-nano.com](http://sustainable-nano.com) for all the CSN blogs and podcasts

### CSN Blogs

- “Book Review: The War on Science,” by **Peter Clement (Haynes group)** – [link](#)
- “The March for Science: A CSN Photo Album,” by **Miriam Krause** – [link](#)
- “Art Conservation and Nanotechnology: A Wonderful Confluence of Arts and Sciences,” by **Sunipa Pramanik (Haynes group)** – [link](#)

### CSN Podcasts

- Podcast Episode 16: “Maybe Not the Next Industrial Revolution? Societal & Ethical Implications of Nanotechnology.” An interview with Dr. Ira Bennett & Dr. Jamey Wetmore – [link](#)

## Fun!

Peter Clement, Joe Buchman, and Christy Haynes did a rainy, cold 5.1K "race" together and finished in 28:35!

## Site Visit Shenanigans



**Red Team dinner. Left to Right:** Joel Pedersen, Joe Buchman, Emily Caudill, Miranda Gallagher, Caley Allen, Mike Schwartz, Zeev Rosenzweig, Rigoberto Hernandez, EAB member Hilary Godwin, Peter Clement, Alicia McGeachy, and Stephanie Mitchell.



### **Before:**

Yup, Mike's shirt really was inside-out for an entire day, and nobody said a thing...



**Grrr.** Mason and Curry groups practice their glares after an intense Site Visit practice.

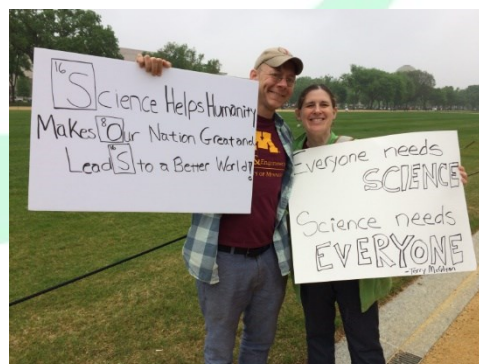


**Almost done...** The TCC team calculates their ground state. Analysis of the output identified lots of smiles, so it looks like they converged (a little theory humor – very little).

**After:** Sunipa, Natalie, and Erin were so excited about getting through the Site Visit, they didn't even notice the big, creepy mouse that was following them – cheese!



## CSN scientists March for Science in the Midwest, D.C., and Berlin





## ***Opportunities***

**August 4-6, 2017 Midwest Women Chemists Retreat**, Newton Iowa. From the [website](#): “The goal of the Midwest Women Chemists Retreat is the retention and advancement of women in chemistry careers. We aim to teach graduate and post-doctoral women chemists a positive and proactive approach to their careers. Specifically, we will connect attendees to a close-knit network of colleagues and mentors, teach strategies for career success, and increase awareness about factors that influence women’s career paths. Our long-term goal is to establish an annual event in the Midwest and to establish Iowa State University as a leader in the advancement of women in science.” **Register by July 1, 2017** [here](#).

The National Nanotechnology Initiative (NNI) is accepting submissions for [Nano Film](#) and [EnvisioNano](#), efforts to feature “what is cool about nanotechnology” (videos) and to “demonstrate how beautiful the nanoscale can be” (photography). The prizes aren't monetary, but winning videos and photographs will be featured on [nano.gov](#) and could be included in official NNI documents. It’s a great way to show people how beautiful and interesting your science is! **The deadline is September 5, 2017** for submitting [videos](#) and [photography](#).

## ***Looking Ahead***

### **Upcoming CSN Professional Development Activities**

- **10:00 am CST, Thursday, June 22:** Developing Your Scientific Identity (Nyote Calixte, Duke University).
- **9:00 am CST, Wednesday, June 28:** Intro to Computational Chemistry (led by Caley Allen and Joe Bennett).
- **1:00 pm CST, Thursday, July 13:** Job Interview Dos & Don’ts (Whitney Moore, University of Minnesota).
- **3:00 pm CST, Thursday, July 27:** Research Ethics (Cathy Murphy).
- **12:15 pm CST, Wednesday, August 2:** REU/REV 5 minute flash talks (during Center-wide meeting).

## Lost in Cyber-Space?

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

### **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 2.3: [link](#)
- CSN participants list (Names, group, and email addresses): [link](#)
- CSN Projects Documents (Spring 2017 version): [CSN Projects](#) - [% Effort sheet](#)

#### **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](#)

Find the most recent list of all our publications on the [CSN Google Scholar](#) page.

