



WHAT'S HAPPENING IN THE CSN?



Image credit: UW-Madison Diversity

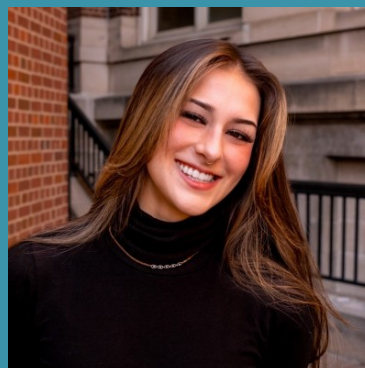
NSF Center for Sustainable Nanotechnology

Reminder: The CSN All-hands meeting in Baltimore is May 1-2

WELCOME TO NEW CSN MEMBERS!



Kevin Tang is a new graduate student in the **Cui** group



Heather Muentner is a new undergraduate researcher in the **Haynes** group

Milestones and Awards



Tana O'Keefe (Haynes group) successfully defended her thesis on March 1. She had already started a new position at Land O' Lakes. Congratulations Dr. O'Keefe!



Milestones and Awards



Abby Stitgen (Haynes group) passed her oral preliminary exam - she is officially a PhD candidate.



Shreyasi Sengupta (Rosenzweig group) received a Professional Development Grant from UMBC Graduate Student Association (GSA) to present at the Materials Research Society (MRS) Fall 2023 National Meeting at Boston, MA. She Also received a Student Award to present at the Sustainable Nanotechnology Organization (SNO) 2023 conference, which resulted in a First Place in the Student Poster Competition!



Savannah Phillips (Fairbrother group) is our new WEL Committee co-chair



CSN Alum **Stephanie Mitchell (Carlson group)** completed her science policy internship and has been hired as a full-time senior consultant for the [California Council on Science & Technology](#) (Assembly Water, Parks, and Wildlife Committee).



CSN Alum **Margy Robinson (Hamers group)** recently posted a career update on LinkedIn: I'm very happy to announce that I passed the patent bar exam and received a registration number from the USPTO. I can officially call myself a Patent Agent at Quarles & Brady LLP!

Milestones and Awards



Christy Haynes was recognized on 2023 [Analytical Scientist Power List](#)



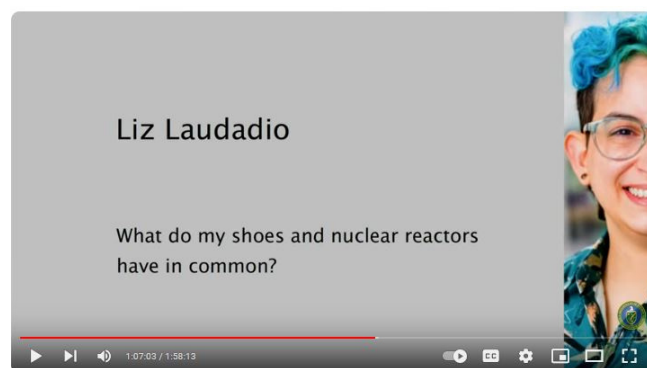
Bob Hamers and UW-Madison staff member Desiree Bates are receiving the [Midwest Association of Graduate Schools Award for Excellence and Innovation in Graduate Education](#) for their efforts founding the UW-Madison Bridge to the Chemistry Doctorate Program.



CSN SURE Alum **Nicole Moering** was the recipient of the 2023 VINSE [Best Graduate Student Publication Award](#).

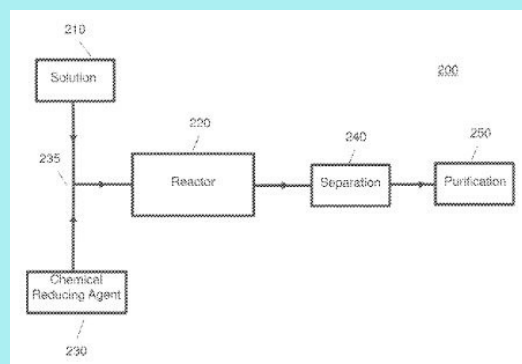


CSN SURE alum **Matty Sey** was awarded the Fall 2023 [Outstanding Graduate award](#) at Florida International University,



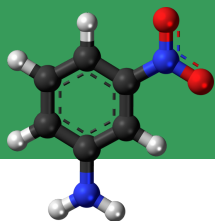
2023 National Lab Research SLAM

CSN alum **Liz Laudadio** (Hamers group) represented Argonne National Lab in the National Lab Research Slam. One scientist was selected from each national lab to present a short summary of their research, [You can watch Liz's talk here](#).

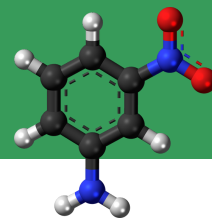


CSN Affiliate **Mike Curry** was issued a patent entitled "[High-throughput synthesis of metallic nanoparticles](#)." The patent also included two former CSN SPRINGs as inventors, **Aiesha L. Ethridge** and **Demetrius Finley**.





CSN PUBLICATIONS



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

Nasim Ganji, Christian Reardon-Lochbaum, Swapnil B. Ambade, Caroline Anastasia, Patrick Mackin Eckhert, Zeev Rosenzweig, Joel A. Pedersen and D. Howard Fairbrother (2024). Stability of $Ti_3C_2T_x$ MXenes in Engineered Environments. *Environmental Science: Nano*. Read the online publication [here](#).

Xinxin Xu, Yaozu Guo, Yi Hao, Zeyu Cai, Yini Cao, Wanzhen Fang, Bangyin Zhao, Christy L. Haynes, Jason C. White and Chuanxin Ma (2023). Nano-silicon fertiliser increases the yield and quality of cherry radish. *Modern Agriculture*. 1 (2), 152-165. Read the online publication [here](#).

Emma M. McKeel, Hye-In Kim, Su-Ji Jeon, Juan Pablo Giraldo and Rebecca Klaper (2024). The Effect of Nanoparticle Surface Charge on Freshwater Algae Growth, Reproduction, and Lipid Production. *Environmental Science: Nano*. Read the online publication [here](#).

Yuhan Wang, Mahima Unnikrishnan, Brooke Ramsey, Driss El Andlosy, Alex T. Keeley, Catherine J. Murphy and Martin Gruebele (2024). In-Cell Association of a Bioorthogonal Tubulin. *Biomacromolecules*. Read the online publication [here](#).

Stephanie L. Mitchell, Daniel B. Kearns and Erin E. Carlson (2023). Penicillin-binding protein redundancy in *Bacillus subtilis* enables growth during alkaline shock. *Applied and Environmental Microbiology*. 90 (1), e0054823. Read the online publication [here](#).

Leslie R. Sigmon, Shital R. Vaidya, Corey Thrasher, Sumaya Mahad, Christian O. Dimkpa, Wade Elmer, Jason C. White and D. Howard Fairbrother (2023).

Role of Phosphorus Type and Biodegradable Polymer on Phosphorus Fate and Efficacy in a Plant-Soil System. *Journal of Agricultural and Food Chemistry*. 71 (44), 16493-16503. Read the online publication [here](#).

Eric Ostovich, Austin Henke, Curtis M. Green, Robert J. Hamers and Rebecca Klaper (2024). Predicting the phytotoxic mechanism of action of $LiCoO_2$ nanomaterials using a novel multiplexed algal cytological imaging (MACI) assay and machine learning. *Environmental Science: Nano*. Read the online publication [here](#).

DID YOU KNOW?

The special issue of *Environmental Science: Nano* in memory of **Joel Pedersen** is now fully published. The full [special issue is available here](#), and the introductory [tribute to Joel from Christy and Bob is here](#). (All individual articles had already been accepted last fall and were listed in the previous issue of the newsletter!)



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Check out the ACS Black History Month highlight "[Honoring the Accomplishments of Black & African American Chemists During Black History Month.](#)"



CSN Media & Other Recognition



The **Haynes** group was featured in a UMN Research & Innovation Office article entitled "[UMN Research Tackles Forever Chemicals](#)"



Christy Haynes & Jason White have launched a new company based partly on CSN research. From the [company website](#): "Convergent is the result of convening a team of highly motivated and talented individuals with pre-existing success in researching, developing and commercializing next-generation sustainable agriculture inputs. This team is ready to be the catalyst to making a new era of clean, healthy agriculture a reality."



Can nanoparticles help fight hunger?
338,463 views | Christy L. Haynes | TEDxMinneapolis • September 2022

Christy Haynes' TEDx talk entitled "[Can nanoparticles help fight hunger?](#)" is now featured on their main site. It has had >330,000 views since it was posted a few weeks ago.



CSN alum **Stephanie Mitchell** wrote a highlight for the California Council on Science & Technology entitled "[The Not so 'Extra' Part of Grad School: How Extracurriculars Shaped My Policy Career](#)"



CSN Talks & Presentations

Shreyasi Sengupta presented CSN research at the 2023 Association of Environmental Engineering and Science Professors (AEESP) Distinguished Lecture, UMBC; 12th Sustainable Nanotechnology Organization (SNO) 2023 conference, Los Angeles, CA; and 50th Materials Research Society (MRS) Fall 2023 National Meeting, Boston, MA.



Mike Schwartz and **Mike Curry** participated in a meeting at ACS headquarters to discuss strategies for promoting and advancing HBCU partnerships. The meeting included several leaders from ACS and multiple HBCUs.



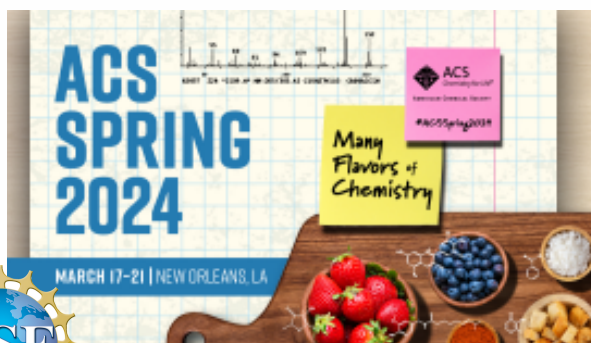
Christy Haynes gave a student-invited seminar at the University of Iowa about collaborative CSN work.



Safia Jilani gave an invited presentation for the ACS leadership development institute



Jason White gave an oral presentations focused on CSN work at the University of Delaware; the 2023 ASA CSSA SSSA International Annual meeting (St. Louis MO); the 12th Sustainable Nanotechnology Organization conference (Marina del Rey CA); at the University of Parma (Parma Italy), and the University of Athens (Athens Greece).



Many CSN members will be presenting at the ACS meeting in New Orleans this month! We will share a full list soon.



More Talks & Presentations



Sara Mason, Zeev Rosenzweig, and Mike Schwartz visited the Río-Piedras, Mayagüez, and Cayéy campuses of the University of Puerto Rico to meet with colleagues and recruit for the SURE/REV program. Thanks to Sara for permission to excerpt from her [LinkedIn post](#) about the trip:

First, I had the privilege of promoting the groundbreaking work in science and undergraduate research opportunities within the NSF Center for Sustainable Nanotechnology....

Additionally, I seized the opportunity to advocate for collaboration with #CFNatBrookhaven. Prof. Dalice M. Pinero Cruz eloquently emphasized the significance of partnering with scientists at National Labs, sharing her firsthand experience with #CFNatBrookhaven.

One of the trip's highlights was engaging in insightful conversations with both undergraduate and graduate students. We discussed diverse career paths and the transformative power of collaborative research.



Jason White was an invited speaker at the 6th International Conference on Agriculture for Sustainable Development sponsored by the Indian Council for Agricultural Research at the National Rice Research Institute in Cuttack, India



As we announced in the last newsletter, we have a new CSN Mutual Aid program!

[Form to request mutual aid](#)

[Form to offer mutual aid](#)



art by Kevin Caplicki

Lab Exchanges



Eleni Spanolios conducted a lab exchange in the Hamers group, working with Katie Kruszynski Earl to learn how to synthesize and characterize LiCoO_2 (LCO) and NMC nanoparticles.



Latest from Sustainable Nano

See Sustainable-Nano.com for all CSN blog posts & podcast episodes



- [CSN middle school outreach: Teaching nanoscience the fun way!](#) by Caroline Anastasia, with help from Ravithree Senanayake
- [Quantum Computing for Everyone](#) by Jennifer Bjorklund
- [Why nanoscientists and farmers both care about plant leaves](#) by Chaoyi Deng
- [A Valentine's Day DIY: nanoscience-inspired rock candy!](#) by Savannah Phillips
- [Happy Valentine's Day from our amazing universe!](#) by Bob Hamers
- [Black History Month: All-Stars of Food and Agriculture](#) by Lindsay Triplett
- [¿Podemos hacer que las nanopartículas sean más sostenibles?](#) translation of post by Joe Buchman
- Podcast episode 44: [Part of Something Bigger: Social Media, Mentoring, & Friendship with Stuart Cantrill](#) interview by Safia Jilani





Opportunities!



Registrations are open for the [2024 Nanoscale Science and Engineering for Agriculture and Food Systems Conference GRC](#). **Jason White** is one of the co-chairs for the GRC, and **Beza Tuga** is co-chairing the [Graduate Research Seminar](#). Applications are due May 25 for attending, but early registrations are encouraged and students who want to submit GRS oral presentations should apply by **March 17**.

- The deadline is **March 13** for students and postdocs to submit [technical abstracts and apply for an Advancing Science Grant for NOBCChE](#) (Sept 30-Oct 3 in Orlando, FL).
- SACNAS is now accepting session proposals for the [2024 NDiSTEM Conference](#) (Oct 31-Nov 2 in Phoenix, AZ), due **March 20**.
- The National Academies have opened applications for the [NRC Research Associateship Program](#), which offers postdoctoral research opportunities with sponsoring federal laboratories and other research organizations. Applications are due **May 1**.

The ACS Sustainability Stars social media program is open now through July 14 to celebrate “scientists that are making ‘chemistry’ synonymous with ‘sustainability.’” Learn more and [nominate yourself here](#).



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Dr. Shana Stoddard (CSN's 2023 Scholar-in-Residence) has launched a new initiative to expand the impact of her mentoring models, called the [Learning Concepts Institute](#). Check out the site for offerings aimed at students, faculty, and organizations!



LOST IN CYBER-SPACE?

Links to frequently requested CSN documents and information sources.

Newsletter submissions:

Awards, highlights, lab exchanges, publications, FUN, etc. [link](#)

CSN Documents and Downloads

- Nanodatabase Login: [link](#)
- Nanodatabase Help page: [link](#)
- CSN calendar: [link](#)
- CSN Operations Guide: [link](#)
- CSN participants list (Names, group, and email addresses): [link](#)

CSN Reporting Forms

- Report lab exchange activities: [link](#)
- Report Outreach Activity: [link](#)
- Report Awards and Other Activities: [link](#)

CSN SuggestionOx (Anonymous Feedback to Admin)

- Admin (goes to Christy): [link](#)
- SPRING Board liaison: [link](#)

ADMIN EMAILS

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