

What's happening in the CSN?

June 25, 2021

Volume 6, Issue 3



HAPPY SUMMER!

Celebrations

Welcome to New CSN Members

We are excited to welcome several new graduate students and postdocs! L-R below: **Emma McKeel** (Klaper group), **Zeke Piskulich** (Cui group), **Carlos Tamez** (White group), and **Alicia Tripp** (Hamers group).



Welcome to all of our 2021 Summer Undergraduate Research Experience (SURE) and Research Experience for Veterans (REV) students! Counting all participants, including everyone hosted in CSN labs for the summer, those doing research in their home labs while engaging in our virtual programming, and “honorary” students who are participating with us even if their funding comes from another source, we have 38 participants this year (!!). This is by far the biggest cohort in CSN history, and we are thrilled to have everyone with us. The full list of participants is:

Clayborne group: Annieka Reno

Cui group: Xiao Huang

Curry group: Cecilia Rhoades

**Daly group: Ahlam Houssein, Daniela Moreira,
& Sunny Truslow**

Deline group: Elise Eng & Meagan Perry

Fairbrother group: Arnab Sharma

**Feng group: Nadine Aburaide, Paul Lemke, Kelly
Lu, Falak Tawakalna, & Daniel Wolfson**

Gaines group: Shareda Ferguson

Giraldo group: Alejandro Rivera-Madera

Goldsmith group: Evan Jensen

Green group: Jasmine Williams

Hamers group: Kelsey Brooks & Christina Vialva

**Haynes group: Radwa Abdelaziz, Clare Froelich,
Astrid Hernandez, & Mary McIntire**

Hernandez group: Rocío Amaro Marquez

Klaper group: Alanis Lopez

Pazicni/Krause group: Melony Kim

**Mensch group: Anna DiFelice, Carie Feigeles, &
Elizabeth Good**

Murphy group: Alondra López Colón

**Pedersen group: Tobias Rangel Guillen & Shane
Ridley**

Rosenzweig group: Alayah Collins

Tollefson group: Courtney Cox & Kerry Miller

Wheeler group: Erica Svendahl

**White/Elmer group: Simon Duggan & Shante
Hanna**



We are thrilled to welcome several new honorary members of the CSN! Pictured L-R: Grace Kyuri (**Haynes** group alum **Hyunho Kang**'s daughter), Aaron Raj Dahal (**Cui** group alum **Udaya Dahal**'s son) , and Ethan (**Erin Carlson**'s son, born May 15). Welcome to all our new CSN Junior Scientists!



Good news!

Nicholas Niemuth (**Klaper** group) successfully defended his thesis, entitled "Investigating Mechanisms of Nanotoxicity of a Next-generation Lithium Cobalt Oxide Nanomaterial" on October 13, 2020. He has accepted a postdoctoral appointment in Christine Payne's lab at Duke. Congratulations Dr. Niemuth!



Izzy Foreman-Ortiz (**Pedersen** group) successfully defended her thesis, entitled "Nanoparticle impact on membrane properties and embedded ion channels," on May 10th, 2021. Izzy is continuing to work with the CSN for the summer as an assistant coordinator for the SURE/REV program. Congratulations, Dr. Foreman-Ortiz!

Austin Henke (**Hamers** group) successfully defended his thesis, entitled "Redox Reactions at Solid-Liquid Interfaces and Implications for Sustainability," on May 13th, 2021. Austin has accepted a postdoc position in Paul Westerhoff's group at Arizona State University as part of the the NSF-funded "NEWT" (Nano-Enabled Water Treatment) Engineering Research Center. Congratulations, Dr. Henke!



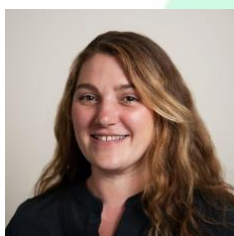
Jaya Borgatta (**Hamers** group) successfully defended her thesis, entitled "Understanding the influence of Cu-based nanoparticle properties on interactions with plant systems and disease suppression," on June 22nd, 2021. Jaya has accepted a postdoc position in Jason White's group at the Connecticut Agricultural Experiment Station. Congratulations, Dr. Borgatta!



Dr. Joseph Bennett, a CSN alumnus of the Mason group, was promoted from Pre-Faculty Fellow to Assistant Professor in the Department of Chemistry & Biochemistry at the University of Maryland Baltimore County (UMBC). Over the course of his 2-year pre-faculty fellowship at UMBC, Joe was the corresponding author on four published papers, the recipient of a faculty START grant through UMBC, and received an award from the Middendorf Foundation of Baltimore for his work on environmental chemistry. Prof. Bennett has built a research group that uses computational methods to solve problems related to human health, energy, and the environment, delving into topics such as functional materials design, art conservation, and Pb release into water systems. For information on current projects in the Bennett Group at UMBC, please visit bennettlabs.umbc.edu to find out more.

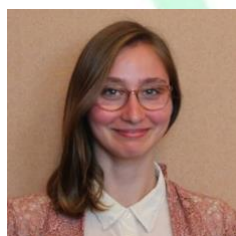
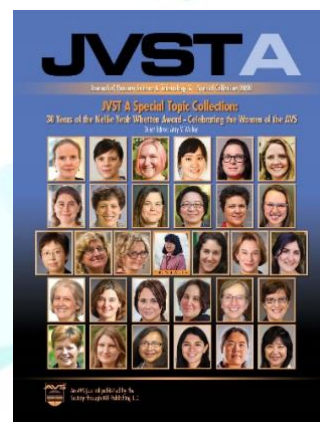


Milestones and awards

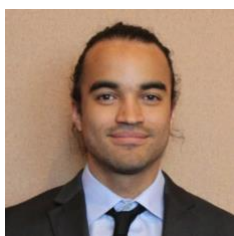


Congratulations to CSN grad student **Leslie Sigmon (Fairbrother group)** who was selected by the National Science Policy Network to participate in the SciPol Scholars program's spring 2021 cohort. You can read more about the program [here](#).

Jenny Hedlund Orbeck (Hamers group) contributed a [publication](#) and was featured on the cover of the *Journal of Vacuum Science & Technology A* for the "30 years of the Nellie Yeoh Whetten Award — Celebrating the Women of the AVS" [special issue](#).



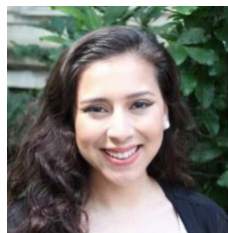
Congratulations to **Jaya Borgatta (Hamers group)** for receiving the Mike McCoy Award. The Mike McCoy Award is awarded to a student who is doing materials-related research who best exemplifies "Mike's love of chemistry and love of life!"



Congratulations to **Levi Hogan (Goldsmith group, left)** and **Zack Jones (Hamers group, right)** for receiving the Roger Carlson Award from the UW-Madison Department of Chemistry. The Roger Carlson Award is given to an analytical student who has the best use of instrumentation and research at the intersection of physics and chemistry.

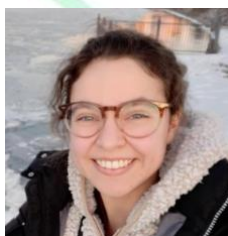


Congratulations to **Diamond T. Jones (Mason group)**, who has been awarded a Ballard and Dissertation Fellowship by the Graduate College at the University of Iowa for the Fall 2021 semester. This fellowship program provides an opportunity for Ph.D. students to benefit from a final semester of protected and supported time to focus on completing their scholarly research activities and the writing of their dissertations. Diamond has also signed on to serve as our new Diversity Committee SPRING Co-Chair starting Sept 1.



Congratulations to **Becky Rodriguez (Haynes group)** for being recognized with FOUR different awards: the University of Minnesota President's Leadership and Service Award, 2021 Josie R. Johnson Human Right and Social Justice Award, the University of Minnesota Department of Chemistry Diversity & Inclusion Award (which wouldn't exist without her advocacy), and an Analytical Chemistry Diversity Colloquium (AC/DC) Rising Star!

Congratulations to **Meghan Cahill (Haynes group)**, who is also one of the first recipients of the University of Minnesota Department of Chemistry's Diversity & Inclusion Award, as well as a President's Student Leadership and Service Award and Department of Chemistry Writing Award Honorable Mention! Meghan graduated from the University of Minnesota this Spring with a major in chemistry and minors in biology and communications. She presented her honors thesis, "Understanding the Nanotechnology-Biological Interface through Analytical Chemistry Techniques and Tools," on May 27. She will be starting a new position as a Research Technician at CAES this summer.



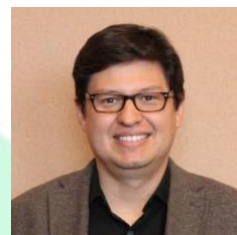
Congratulations to **Beza Tuga, Eleni Spanolios, Riley Lewis (Haynes group), and Alessandra Gavin (Carlson group)** (shown clockwise), who all passed their qualifying exams at the University of Minnesota.





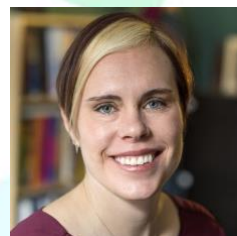
Rigoberto Hernandez was named co-chair of the [Roadmap 2020 Task Force](#) at Johns Hopkins University. The JHU task force aims to implement recommendations to promote diversity, equity, and inclusion that can be found [here](#).

Juan Pablo Giraldo was promoted to Associate Professor of Botany and Plant Sciences by the University of California-Riverside.



Randy Goldsmith was promoted to Full Professor in the Chemistry Department at the University of Wisconsin-Madison.

Erin Carlson was promoted to Full Professor and named the Smith Professor of Chemistry at the University of Minnesota.



Jason White has received a number of accolades, including being elected to the Connecticut Academy of Science and Engineering, winning the inaugural 2020 Environmental Science and Technology (ES&T) Lifetime Reviewer Award, and becoming an Associate Editor of *NanoImpact*. He was also awarded the 2020 Outstanding Reviewer Award for *Environmental Science: Nano* and was appointed as a Clinical Professor of Epidemiology in the Department of Environmental Health Sciences of the Yale School of Public Health.

CSN Publications

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

Hui Yin, Arielle C. Mensch, Christian A. Lochbaum, Isabel U. Foreman-Ortiz, Emily R. Caudill, Robert J. Hamers and Joel A. Pedersen (2021). Influence of Sensor Coating and Topography on Protein and Nanoparticle Interaction with Supported Lipid Bilayers. *Langmuir*. 37 (7), 2256-2267. Read the online article [here](#).

Hyunho Kang, Wade Elmer, Yu Shen, Nubia Zuverza-Mena, Chuanxin Ma, Pablo Botella, Jason C. White and Christy L. Haynes (2021). Silica Nanoparticle Dissolution Rate Controls the Suppression of Fusarium



Wilt of Watermelon (*Citrullus lanatus*). *Environmental Science & Technology*. Accepted for the upcoming “Environmental Implications of Nanofertilizers” special issue. Read the online article [here](#).

Jaya Borgatta, Christian Lochbaum, Wade H. Elmer, Jason White, Joel A. Pedersen and Robert Hamers (2021). Biomolecular Corona Formation on CuO Nanoparticles in Plant Xylem Fluid. *Environmental Science: Nano*. 8 (4), 1067-1080. Read the online article [here](#).

Christian A. Lochbaum, Alex K. Chew, Xianzhi Zhang, Vincent Rotello, Reid C. Van Lehn and Joel A. Pedersen (2021). Lipophilicity of Cationic Ligands Promotes Irreversible Adsorption of Nanoparticles to Lipid Bilayers. *ACS Nano*. 15 (4), 6562-6572. Read the online article [here](#).

NicholasJ Niemuth, Denise N. Williams, Arielle C. Mensch, Yi Cui, Galya Orr, Ze'ev Rosenzweig and Rebecca D. Klaper (2021). Redesign of hydrophobic quantum dots mitigates ligand-dependent toxicity in the nematode *C. elegans*. *NanoImpact*. 22 100318. Read the online article [here](#).

Anthony Y. Cui and Qiang Cui (2021). Modulation of Nanoparticle Diffusion by Surface Ligand Length and Charge: Analysis with Molecular Dynamics Simulations. *The Journal of Physical Chemistry B*. 125 (17), 4555-4565. Read the online article [here](#).

(Fun fact! This publication is a father-son effort! Additionally, Anthony is the first high school student to publish a first-author paper in the CSN!)

Metti K. Gari, Paul Lemke, Kelly H. Lu, Elizabeth Laudadio, Austin Henke, Curtis M. Green, Thomas Pho, Khoi Nguyen Hoang, Catherine Murphy, Robert Hamers and Z. Vivian Feng (2021). Dynamic Aqueous Transformations of Lithium Cobalt Oxide Nanoparticle Induce Distinct Oxidative Stress Responses of *B. subtilis*. *Environmental Science: Nano*. Accepted. Read the online article [here](#).

Austin Henke, Elizabeth D. Laudadio, Jenny K. Hedlund Orbeck, Ali Abbaspour Tamijani, Khoi Nguyen Hoang, Sara E. Mason, Catherine J. Murphy, Z. Vivian Feng and Robert J. Hamers (2021). Reciprocal Redox Interactions of Lithium Cobalt Oxide Nanoparticles with Nicotinamide Adenine Dinucleotide (NADH) and Glutathione (GSH): Toward a Mechanistic Understanding of Nanoparticle-Biological Interactions. *Environmental Science: Nano*. Accepted Read the online article [here](#).

Yongqian Zhang, Udaya Dahal, Z. Vivian Feng, Zeev Rosenzweig, Qiang Cui and Robert J. Hamers (2021). Influence of Surface Ligand Molecular Structure on Phospholipid Membrane Disruption by Cationic Nanoparticles. *Langmuir*. Accepted. Read the online article [here](#).

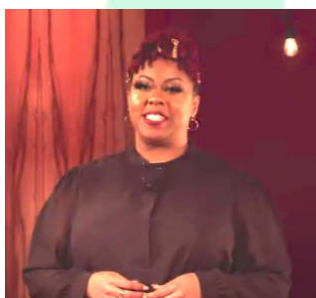
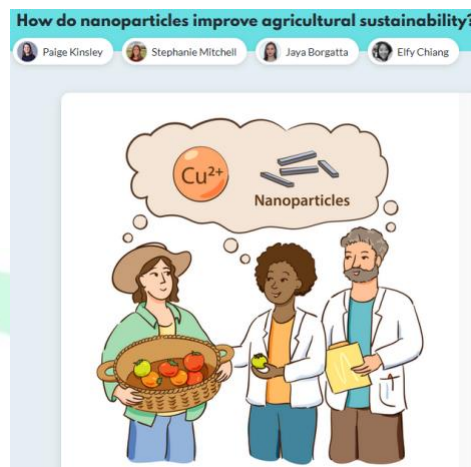
Christy L. Haynes and Jonathan V. Sweedler (2021). Introducing Analytical Chemistry's Diversity and Inclusion Cover Art Series. *Analytical Chemistry*. 93 (3), 1211-1212. Read the online article [here](#).

(Find out more about this really cool cover art series below under *Did You Know?*)



CSN Media & Other Recognition

Paige Kinsley (Hamers group), **Jaya Borgatta** (Hamers group), and **Stephanie Mitchell** (Carlson group) created another Lifeology course (with artist Elfy Chiang), entitled “[How do nanoparticles improve agricultural sustainability?](#)” This illustrated and animated slide deck tells the story of how nano-enabled approaches can be applied to improve sustainable agriculture. (Note that one of the cartoon scientists bears a remarkable resemblance to **Jason White**...)



CSN’s Wellness, Equity, & Liberation Consultant **Dr. Della Mosley** presented a TEDx talk on April 11: “Moving From ‘Woke’ To Working For Black Futures.” You can [watch here](#); the official TED summary says:

How do we turn our chants of “Black Lives Matter” into a reality? In this talk, Dr. Della V. Mosley answers this question by showing us how we can move past being “woke” and towards actively fighting for Black survival, wellness, and ultimately, liberation. Dr. Della V. Mosley is a Black, queer, feminist, scholar, activist, and healer committed to liberation. Today, she is an

Assistant Professor in the American Psychological Association accredited Counseling Psychology Program in the Psychology Department at UF. She leads the Wellness, Equity, Love, Liberation, and Sexuality (WELLS) Healing and Research Collective and co-founded the Academics for Black Survival and Wellness (#Academics4BlackLives). Dr. Della’s research focuses on facilitating the wellness of Black and/or queer and transgender People of Color and has been published in top-tier journals. This talk was given at a TEDx event using the TED conference format but independently organized by a local community. Learn more at <https://www.ted.com/tedx>

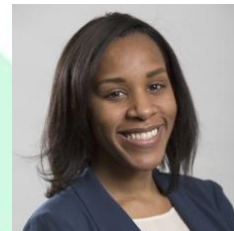
Meghan Cahill (Haynes group) was featured in a University of Minnesota College of Science and Engineering feature story, entitled “[Meghan Cahill finds herself and her people in CSE.](#)”





CSN affiliate faculty member **Mike Curry** (left) was featured in a biographical profile in *Shout Out Atlanta*: "[Meet Dr. Michael L. Curry | Professor, Researcher, Inventor, and Entrepreneur – A PRIME Career Professional](#)." Dr. Curry was also recognized as a [Black History Maker of Alabama](#), and served as a panelist along with CSN alum **Dr. Donald White** (right) for "Innovation and Tech Transfer - What's in it for me?" as part of Bowie State University's [Grants Expo & Research Week](#).

CSN alum **Dr. Alicia McGeachy** (Geiger group) was interviewed on the Monday Science podcast about Chemistry, Ceramics, Art, Museums and More. [Listen here.](#)



CSN alum **Naomi Dalchand** (Geiger group) wrote an article on the AAAS site on how she became a confident presenter thanks to Lady Gaga. [View the article here.](#)

Thomas Pho (Feng group alum) was featured in an ACS *inChemistry* magazine article, "[Georgia Tech Student Opens Up About Pursuing an Advanced Degree as a Vietnamese American](#)" (image from *InChemistry*).



Christy Haynes was featured on her very own profile card as part of the [Compound Interest Women in Chemistry](#) project!



Rigoberto Hernandez was interviewed for a [Johns Hopkins University article](#), "Repairing the STEM Pipeline: Hopkins faculty members are working to improve STEM spaces' accessibility and inclusivity for women in the field" by Rachel Wallach.



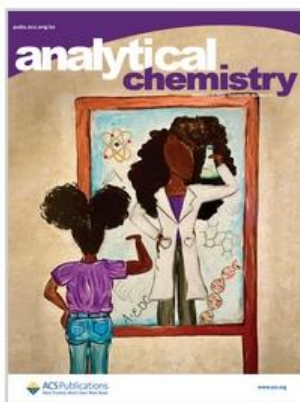
Cathy Murphy served as a science advisor for NOVA's "Beyond the Elements: Reactions," which you can [watch here](#).



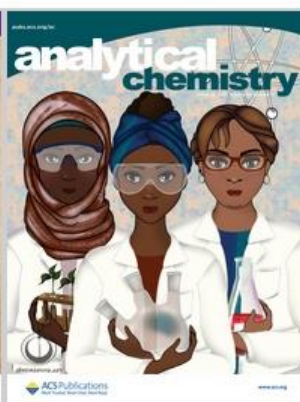
Jason White's (left) team, and their research on how nanoparticles can protect crops from pathogenesis fungi, were highlighted in a recent [Science News article](#). **Juan Pablo Giraldo's** (right) research with Jason on plant nanobiotechnology was also highlighted by the Sustainable Nanotechnology Organization newsletter.

Did You Know?

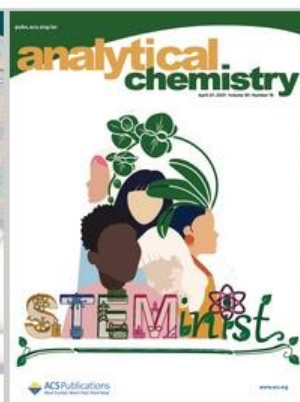
Christy Haynes has been working with ACS Publications Editor-in-Chief Jonathan Sweedler to encourage BIPOC artists and chemists to share their stories (linked to their names below) and artwork for a series of covers for *Analytical Chemistry*. In [this Analytical Chemistry editorial](#), Christy talks about how she was inspired to promote BIPOC scientists through "Artivism" during the 2020 [Academics for Black Survival and Wellness](#) workshop. Artivism is one of the many forms of activism described by **Dr. Della Mosley's** [Critical Consciousness](#) model for preventing and resisting anti-Black racism. You can submit a cover idea for consideration, too! Find out more [here](#)!



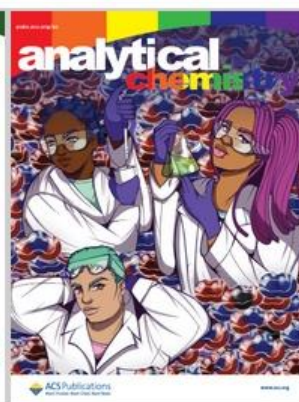
[Dr. Jeanita Pritchett](#)



[Dr. Semaarhy Quiñones-Soto](#)



[Anisa Tariq](#)



[Kemi Oloyede](#)



Lab Exchanges

Eric Ostovich (Klaper Lab) completed a lab exchange at Connecticut Agricultural Experiment Station (**White/Elmer** groups) from May 4-7. Photos show (left) Eric and postdoc **Carlos Tamez** doing a chlorophyll test, and (right) a greenhouse selfie with **Yu Shen**, Eric, and Carlos.



CSN Talks and Presentations



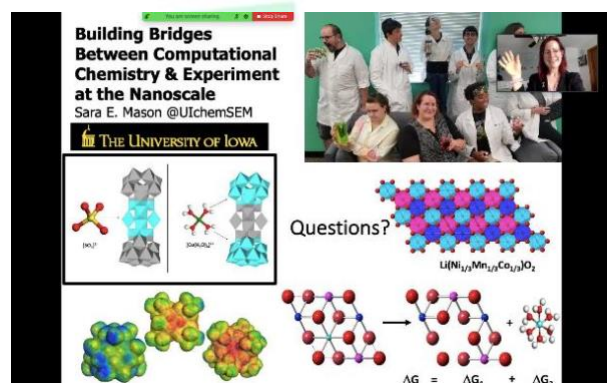
Several CSN members presented at the Great Lakes Regional Meeting (GLRM) of the American Chemical Society at the beginning of June. On behalf of the CSN Diversity Committee, **Miriam Krause** presented “Working toward wellness, equity, and liberation in the NSF Center for Sustainable Nanotechnology.” This was a highly collaborative presentation, with significant contributions from co-authors **Della Mosley**, **Beza Tuga**, **Jenny Hedlund Orbeck**, **Becky Curtis**, **Christian Lochbaum**, **Vivian Feng**, **Juan Pablo Giraldo**, **Christy Haynes**, **Cathy Murphy**, and **Mike Schwartz**.



Also at the GLRM, **Beza Tuga** (Haynes group, left) independently presented “Improving recruitment and retention of women in science” and “Varied Dissolution Silica Nanoparticles for Nanoenabled Disease Suppression in Plants.” Beza’s excellent presentation was recognized with a GLRM presentation award. **Bob Hamers** (right) presented the keynote for the conference’s Nanomaterials symposium, entitled “Sustainability: Opportunities for Next-generation Chemists.”

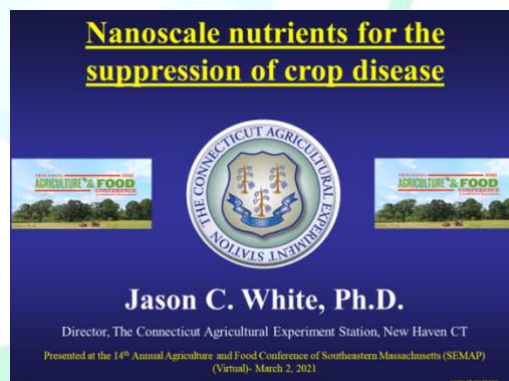


Katie Kruszynski (Hamers group) was a panelist for an ACS professional development webinar on April 13, "Nanosafety: Emerging Research Perspectives." You can watch the [recording here](#).



Sara Mason was also an ACS webinar panelist, for "The Resilience of Women in Chemistry" on March 25, and presented seminars in April at Truman State University and the University of Illinois at Urbana-Champaign. The UIUC talk (left) was "Building Bridges between Computational Chemistry and Experiment at the Nanoscale: Materials for Energy and the Environment," and the presentation for Truman State was "Computational Chemistry in Nano, Environmental, and Energy Sciences."

Jason White has given a number of presentations since the last newsletter! At the University of Agricultural Sciences and Technology of Kashmir (India), he presented "Nanoscale nutrients to suppress disease and increase crop yield." He also gave presentations to the University of Nevada Reno Department of Civil and Environmental Engineering, the Chemistry Department of Western CT State University, the AGFD Symposium, and the 14th Annual Agriculture and Food Conference of Southern Massachusetts. Finally, he gave a presentation entitled "Nanotechnology and Agriculture: Feeding the World for 2050" at the International Conference on Recent Advances in Agricultural Sciences (ICRAAS-2021) which was hosted by Amity University in New Delhi India. There were over 400 attendees at this presentation (virtually), which focused heavily on CSN work.



Finally, many CSN members presented at the spring 2021 National Meeting of the American Chemical Society, including **Vivian Feng**, **Juan Pablo Giraldo**, **Bob Hamers**, **Rigoberto Hernandez**, **Blake Hudson**, **Su-Ji Jeon**, **Diamond Jones**, **Laura Kesner**, **Miriam Krause**, **Sara Mason**, **Cathy Murphy**, and **Jason White**. The full list of CSN presentations and authors is [posted here](#).



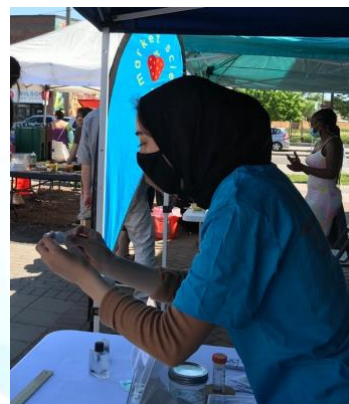
Outreach

See sustainable-nano.com for all CSN blog posts and podcast episodes.

CSN Blog posts since the last newsletter

- [Applying to Graduate School: Advice for LGBTQ+ students from the community](#) by **Natalie Hudson-Smith** (Haynes group alum) with Emma Bublitz
- [Black History Month Highlights](#) by **Becky Rodriguez** (Haynes group)
- [The NSF Center for Sustainable Nanotechnology uses art and story to make the nano world relatable](#) by Paige Jarreau, about the Lifeology courses by **Paige Kinsley, Jaya Borgatta, & Stephanie Mitchell**
- [Protein folding, artificial intelligence, and impacts on sustainable nanotechnology](#) by **Qiang Cui**

The CSN's first in-person outreach of 2021 took place June 5 at a [Market Science](#) event where **Alessandra Gavin, Stephanie Mitchell, & Andrew Northwick** (Carlson group) and **Radwa Abdelaziz, Tana O'Keefe, & Beza Tuga** (Haynes group) talked about nanoscience with community members at the Midtown Farmer's Market in Minneapolis.



L-R: Andrew Northwick, Alessandra Gavin, Tana O'Keefe, Steph Mitchell, & Radwa Abdelaziz



Meghan Cahill (Haynes group) was very active in a non-CSN form of outreach this spring: the Minnesota Vaccine Finders Facebook group. "In March and April I worked on helping folks find vaccines in their area since it was so difficult to find vaccines even as eligibility expanded. I was able to help hundreds of people find appointments by sharing opportunities and clinics that otherwise they might have missed... I personally booked about 80 appointments for people."



New CSN Capabilities

On April 1 the **Carlson** Group expanded to new lab and office space! These spaces were previously occupied by the venerable Wayland Noland and his group. The space needed a bit of TLC, but are now in ship-shape! We are very excited to have a lab and office with windows.



One of the labs in our new space, years of organic chemistry on those counters!

Alessandra Gavin
holding the back panel
of a hood, which has
written 'CARLSON' in
the dust/lint



Fun!

The CSN spring All-Hands meeting took place virtually March 23-24, 2021



Above: One of multiple screens of participants during an all-hands presentation. Below: Example Zoom Bingo card

MIKE PUTS A FUNNY COMMENT IN THE CHAT	CAN YOU PUT THAT IN THE CHAT?	VOCAL INTERRUPTION BY CHILD AND/OR ANIMAL	CHAT WON'T LET ME COPY AND PASTE	
FREE	SOMEONE'S EMAIL ALERTS COME THROUGH	SOMEONE DOESN'T KNOW THEY ARE FROZEN		SOUND OF SOMEONE AGGRESSIVELY TYPING
AWKWARD SILENCE	BOB GOES "MMHMM"	_____, YOU ARE MUTED	I CAN'T SEE THE CHAT	JUST LET ME SHARE MY SCREEN...
CAN YOU SEE MY SLIDES?	CAN YOU HEAR ME OKAY?	No, YOU GO AHEAD	GOTTA HOP OFF NOW!	SOMEONE'S CHILD OR ANIMAL COMES ON SCREEN
CHRISTY IS THE FIRST TO ASK A QUESTION	SOMEONE'S SLIDES ARE IN SPEAKER VIEW	SOMEONE FREEZES MID-PRESENTATION	MIRIAM FILLS AN AWKWARD SILENCE	SPRINGS FIRST... *SILENCE*



Randy Goldsmith's cat Solo, is the newest member of [Pets of the CSN](#)



The Community Building Committee organized games of Among Us for the All-Hands social event



Cut that sheep's hair before someone pulls the wool over his eyes...



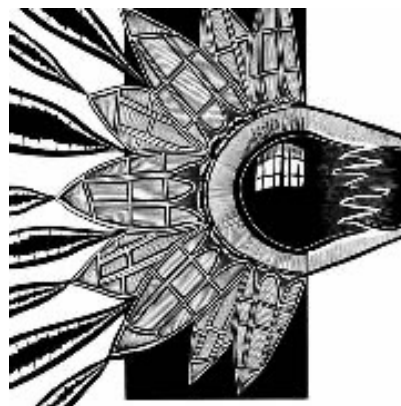
Postdoc Yu Shen with SURE students Simon Duggan and Shante Hanna at CAES



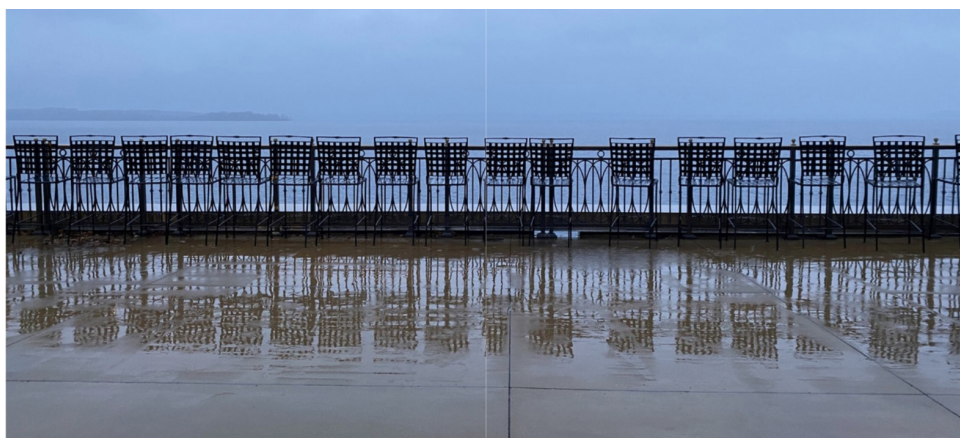
Fieldwork at CAES, L-R: Jason White, Carlos Tamez, Yu Shen, Shante Hanna, & Ishaq Adisa

More Fun !

Several CSN members have had artwork featured in the [fall](#) and [spring](#) issues of *The Benzine*, UW-Madison Chemistry Department's "Art-Chem Zine." Here is a selection:



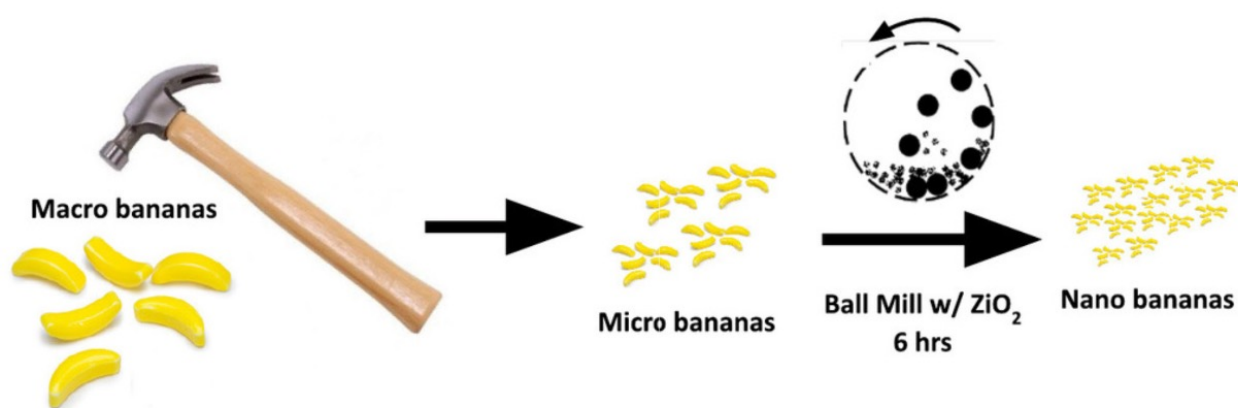
Izzy Foreman-Ortiz (Pedersen group): L-R: The Eye Hungers, Find A Pattern, Disorder of My Nature



Morgan Howe (SURE mentor): Waiting



Caroline Anastasia (Pedersen group): Snake Plant



There has been an increased interest in recent years in the application of bananoparticles in a number of fields, ranging from agriculture to battery technology to nano-monkeys. However, the application of these particles is limited by syntheses producing only milligrams of particles at a time. Here, we present a novel synthesis method for producing kilograms of bananoparticles each batch, increasing the industrial accessibility of this impressive material. Using Runts™ banana candy as a precursor, the macro bananas were mechanically broken down by hammering, creating micro bananas. Further processing by ball milling with zirconia particles produced bananoparticles with a low polydispersity and length of 5 nm. We were able to produce 5 kg of particles in a batch, but we believe the synthesis can be scaled up by many more times using industrial machinery. Increased accessibility of bananoparticles could revolutionize many industries and, they are another example of the exciting application of nanotechnology.

Paige Kinsley (Hamers group): Novel High-Throughput Synthesis of Bananoparticles

Opportunities

From CSN Alum **Clyde Daly, Jr.**: Haverford College is searching for a one-year, full-time visiting assistant professor and part-time instructors in several areas of chemistry for the 2021-2022 academic year. They are particularly interested in people who could teach at both the introductory level and in advanced lab and specific special topics courses. Their department and curriculum are focused on both research training and inclusive pedagogy, and they are committed to direct mentoring of new faculty members in the department. [Application page here](#)

Funding opportunity announcement: “The SeRCH Foundation, Inc., hosted by VanguardSTEM, is launching Hot Science Summer! We will give away \$50,000 to seed a thriving set of research projects on [Experiment](#) that are launched by members of the #VSVillage: Black, Indigenous, women of color and non-binary people of color, and marginalized communities of all gender identities who are interested in STEM. Launch a project between June 14–25 to join our Hot Science Set and be eligible for a financial boost!” [Read more here](#).

SACNAS is looking for volunteers for various reviewing and mentoring opportunities for the National Diversity in STEM (NDiSTEM) conference. Some tasks, such as reviewing student travel opportunities, are open to anyone with a bachelor’s degree. [Read more on the various volunteer opportunities here](#).

Looking Ahead

June 29-July 3 is the BlackinX Conference, featuring keynote speakers Dr. Kilan Bishop, Dr. Kizzmekia Corbett, and Dr. Keisha S. Ray. See blackinx.org for more information. (The CSN is one of the conference sponsors!)

Saturday, July 24 at 7:30pm Central will be our next CSN Trivia Night! [RSVP using this form](#). This is a totally optional, informal social event, and partners/family are welcome (only one signup is needed if you will be sharing a computer login). Teams will be randomly assigned.

Wednesday, September 1 will be our annual faculty strategy meeting. The meeting will be hybrid format – those who are fully vaccinated and who are able to travel are invited to attend in person in Minneapolis. Others are invited to participate remotely. Those who travel to Minneapolis will meet in a videoconference-enabled room to maximize participation from those attending remotely while allowing social distancing for those attending in person.

The @LatinXChem conference will be **September 20, 2021**. More information on last year’s conference is [here](#).

Monday and Tuesday, October 11-12 will be our CSN fall All-Hands meeting. The decision is pending about whether it will be all online or hybrid with in-person activities in Minneapolis. Please fill out [this poll](#) to indicate your intentions/preferences for the meeting.



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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).

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](#)
- New CSN Presentations: [link](#)
- Report Outreach Activity: [link](#)
- Report Awards and Other Activities: [link](#)
- CSN Safety Verification form: [link](#)
- CSN Shipping Addresses: [link](#)

CSN SuggestionOx (Completely Anonymous Feedback to Admin)

- Director (Bob): [link](#)
- Associate Director (Christy): [link](#)
- Managing Director (Mike): [link](#)
- E/O Director (Miriam): [link](#)

Admin emails

- Bob (rjhamers@wisc.edu)
- Christy (chaynes@umn.edu)
- Miriam (mkrause@umn.edu)
- Mike (mpschwartz@wisc.edu)

This material is based upon work supported by the National Science Foundation under the NSF Center for Sustainable Nanotechnology, grant number CHE-2001611. Any opinions, findings, and conclusions or recommendations expressed are those of the participants and do not necessarily reflect the views of the National Science Foundation or the participating institutions.

