What's happening in the CSN ?

January 31, 2016 Edition

Celebrations !

Welcome to new CSN Members:

The CSN welcomes **Rosemary Katherine Kuech** into the world! She was born on January 13 weighing in at 2.89E12 ng. Proud parents **Ashley and Tom Kuech** are doing well. Rosemary is a natural-born CSN member by virtue of being born to a CSN member

Welcome to **Denise Williams**, a first-year PhD student in **Zeev Rosenzweig's** group. Denise Williams graduated *cum laude* from the University of New Haven, where she completed majors in both forensic science and chemistry. She joined the Rosenzweig group as a Meyerhoff Fellow in 2015. Denise is currently working on synthesizing luminescent nanomaterials as part of her CSN research.



Milestones and Awards

John Van Gilder's blog post,""Sunburns and Circuits: How Nanotechnology is Pushing the Boundaries of Computing"" was recognized as a Science Seeker Editor's Pick:

http://www.scienceseeker.org/2016/01/scienceseeker-editors-selections_11.html [original post link http://sustainable-nano.com/2016/01/05/sunburns-and-circuits/]

Emily Caudill's January 20 blog post, ""Carbon Nanotubes: the Next Generation of Global Water Purification?"" [http://sustainable-nano.com/2016/01/20/cnts-water-purification/] was selected as a Science Seeker Editor's Pick for Jan 18-24 <u>http://www.scienceseeker.org/2016/01/scienceseeker-</u> editors-selections 25.html

Natalie Hudson-Smith (a new first-year Ph.D. student in the Haynes group) is doing her first lab exchange in the Hamers lab, working with Mini Hang to learn how to make NMC and other complex metal oxides. Natalie and Mimi made several new compositions of nanomaterials, and Natalie got lots of hands-on experience in synthesis and characterization by methods such as SEM, shown at right.



Bo Zhi, a second-year Ph.D. student in the Haynes lab, passed his PhD candidacy exam. **Congratulations, Bo !**



Congratulations to **Qiang Cui** on receiving a Kellett Mid-Career Award from UW-Madison. The Kellett Awards are for exceptional mid-career faculty 7-20 yrs after tenure and provide \$60,000 in unrestricted research funding.

Christy Haynes joins the board of OXIDE, the ""Open Chemical Collaborative in Diversity Equity"" as of 01/01/2016.

Christy Haynes is featured on the Analytical Chemistry podcast discussing the group's recent feature article about monitoring magnetic nanoparticles in biological matrices: http://pubs.acs.org/page/ancham/audio/index.html#

Howard Fairbrother is helping to organize the 2016 International Conference on the Environmental Effects of Nanoparticles and Nanomaterials (ICEENN) which will take place August 14-18th 2016 in Golden, CO. The abstract submission deadline is April 18th. For more details please visit the conference website at: <u>http://igwmc.mines.edu/ICEENN2016.html</u>









CSN Productivity:

Mimi and Ian's paper, "Impact of Nanoscale Lithium Nickel Manganese Cobalt Oxide (NMC) on the Bacterium *Shewanella oneidensis* MR-1", by Mimi Hang, Ian Gunsolus, Hunter Wayland, Eric Melby, Arielle Mensch, Katie Hurley, Joel Pedersen, Christy Haynes, and Robert Hamers, was accepted for

publication and is now published on the ACS web site. This is the first paper showing the direct influence of battery materials on whole





"NMC"



organisms. UW-Madison and UMN have prepared press releases, and the ACS is including this in the packet of information sent out to the press. The paper is open-access and available at: http://pubs.acs.org/doi/abs/10.1021/acs.chemmater.5b04505

The **Murphy Group** has a Perspective in J. Phys. Chem. Letters accepted! Burrows, N. D.; **Vartanian, A**. M.; Abadeer, N.S.; Grzincic, E. M.; **Jacob, L. M.;** Lin, W.; Li, J.; Dennison, J. M.; Hinman, J. G.; **Murphy, C. J**. "Anisotropic Nanoparticles and Anisotropic Surface Chemistry," J. Phys. Chem. Lett., **2016**, 7, pp 632–641 <u>DOI: 10.1021/acs.jpclett.5b02205</u>



We received an invitation from an editor of Environmental Science: Nano to

submit cover art for our recently accepted publication, "Formation of supported lipid bilayers containing phase-segregated domains and their interaction with gold nanoparticles" by **Eric Melby, Arielle Mensch, Sam Lohse, Dehong Hu, Galya Orr, Catherine Murphy, Robert Hamers, and Joel Pedersen**. On Christy's suggestion, **Joel** worked with <u>Ella Maru Studio</u> to design the artwork for submission. The editors were impressed with the artwork and article enough that it will be appearing on the front cover of the first issue of Environmental Science: Nano of 2016! Kudos to all contributing authors! We'll share the cover illustration once it's published.

CSN Talks and presentations

Joel Pedersen and graduate student **Eric Melby** gave talks on CSN research about nanoparticle interaction with model biological membranes last month at Pacifichem in Honolulu.

In December, **Joel Pedersen** traveled along the Yangtze River in China giving a series of talks in Wuhan and Nanjing about CSN work on nanoparticle interaction with biological membranes.

New CSN capabilities:

The **Pedersen lab** has just added two new instruments: a Langmuir-Blodgett trough and a Black Lipid Membrane (BLM) Workstation. The first is to study lipid monolayers at the air-water interface. The second is to conduct electrochemistry experiments on free-standing bilayers suspended across an aperture.

Calling all Webex users !! Our new version of Webex is behaving well, but there are some new procedures to get used to. For the time being, the easiest way to join a meeting is to go to csn.webex.com and click on the relevant link. The system will bring you in as an ""attendee,"" and the meeting host will then make you a ""panelist."" (If you want to host a meeting, email Miriam for instructions - it's pretty straightforward.)



Upcoming professional development activities: We have two more professional development activities scheduled so far for this semester:

- 1. On Monday, February 8 at 10:00 Central time, Christy Haynes will present a workshop on authorship.
- On Monday, April 4 at 10:30 Central time, Rigoberto Hernandez will present ""Advancing Chemical Innovation Through Diversity."" Rigoberto's webinar will be shared with all the other CCIs as well. Stay tuned for information on additional activities that are still in the works.for March and May."

The Center for Chemical Evolution (CCE) is looking for two new postdocs. If you'd like to know more, Miriam can send you the full descriptions.

Looking ahead: Our very first Student Seed Proposal deadline is coming up on Feb 15! See complete guidelines or contact Miriam for more details (guidelines were recently emailed by Arielle and are also posted on the Members Only website)."

Lost in Cyber-space?



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 <u>susnano.chem.wisc.edu</u> web site, but only after you log in. Contact <u>Miriam</u> if you don't know how to log in.

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

Form to request discussion by the executive committee: <u>http://tinyurl.com/z9eftvh</u>

Form to report lab exchange activities: <u>http://tinyurl.com/jxw5jh9</u>

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

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

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

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): <u>https://www.suggestionox.com/response/BeNBi6</u>

Detailed, approved projects for all students/postdocs: http://tinyurl.com/hnp3whg

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.) <u>http://goo.gl/forms/Rz8FIIXnGy</u>