

The Syracuse Chemist

Volume 105/Issue 1



January 2013

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Meet your new executive committee!

In the 2012 elections, Bob Fleischman, Sally Mitchell, and Anna O'Brien were elected to positions on the Executive Committee of the Syracuse Section. Bob will be returning to the Board of Directors for his second term as Treasurer. Sally will be returning to the Executive Committee as a Delegate after completing her term as Past Chair. Anna O'Brien was elected as Secretary and will serve on the Board of Directors in this capacity in 2013 after a short term as an appointed Delegate in 2012.

Approximately 15% of the Syracuse Section members participated in the election. Overwhelmingly, with a vote of 74%, the electors were in favor of changing the name of the Section to the Central NY Section of the American Chemical Society. The next step in the process will be to petition national ACS about our desire to change the name of the Section along with the supporting election results. It is anticipated that the petition will be considered by National ACS at the Spring meeting in 2013. While the Syracuse Section name has a long history, the name change to Central NY will better represent our current membership that includes approximately 40% of members residing or working outside of Onondaga County.

The committee wants to thank everyone who voted. They look forward to working with you and making 2013 a fantastic year for the section!

Calling all College and University Faculty -

Do you have an exceptional junior or senior who would benefit from having a membership to the American Chemical Society?

If so, please contact our Awards Chair, Alyssa Thomas, who is organizing the Student Affiliate Awards for this year. To nominate a student for the award, send an e-mail with the subject - ACS Syracuse Student Affiliate Awards to acthomas@utica.edu and include the name of the student, the institution, and the student's e-mail address. For more details or any questions, send an e-mail to the above address. Deadline for nominations this year is **April 19th**.

STATE OF THE SECTION 2012

By: Bill Ayling, Chair 2012, Past-Chair 2013

The Section completed a wide range of activities in 2012 and the Section is in good financial standing with a reserve of approximately \$7,000 consistent with the expectations of national ACS. At the beginning of 2012, I identified three goals that I wanted to work on during the year. Below is a summary of the goals and progress made in 2012:

- Increase membership and participation. Section membership increased in 2012. However, participation in the Syracuse Section remains low which is typical of local Sections throughout the U.S. We will need to continue to focus on recruiting members to fill roles within the Section governance and providing activities to engage our membership. Member suggestions are always welcomed.
- Increase collaboration. In 2012, we continued collaborations that were developed in recent years including hosting joint events with the Technology Alliance of Central New York (TACNY) and providing chemistry demonstrations at the Carol Baldwin Foundation “Run for Life” event. In addition, the Section participated in an Earth Day Fair held at Bristol-Myers Squibb, we collaborated with the Otisco Lake Preservation Association (a drinking water source for over 250,000 central New Yorkers), New York Water Environment Association (NYWEA), Central NY Food Bank, Destiny Center, and the Rosamond Gifford Zoo. We also expanded regional programs hosting events at SUNY Oswego and Utica College and are reaching out to our members south of the Syracuse to look for opportunities to host a Section event there. Through participation in planning workshops with the Rochester Section, the ground work has been set to expand the relationship with our neighboring colleagues. Collaboration will continue to be a key element to expand our presence in the community in the foreseeable future.
- Expand Long-Term Planning. In 2012, the Section leaders increased the use of planning tools provided by national ACS. We have preliminary plans for a number of events for 2013 in place which is helping us to look and plan further ahead. There is interest in hosting a North-East Regional Meeting (NERM) in 2017. However, such a large commitment would require participation of members to plan and host the event. If you have interest in helping with a NERM, please contact Bill Ayling (aylingwa@verizon.net) or Neal Abrams (nmabrams@esf.edu). We continue to work toward full annual planning that will allow us to put projects and events on the calendar a year ahead so that our members can mark their calendars to participate.

It has been a pleasure to serve the Section in 2012 as a member of the 2012 Executive Committee. My special thanks to my colleagues on the Executive Committee who helped to make this another successful year and everyone who participated in Syracuse Section activities. We look forward to an eventful 2013.

National Chemistry Week 2012!

By: Joy Logan, Education Chair

Inspired by this year's NCW theme, Nanotechnology: The Smallest BIG Idea in Science, the Education Committee set out to hold multiple events in the month of October to do small things that could make a big difference! Together, we partnered for the second year in a row with the Carol Baldwin Foundation for "A Run For Their Life", planned a shore cleanup opportunity at Otisco Lake, a hands-on activity event at Destiny USA, and offered more nanotechnology activities at Spooktacular.

Our first NCW event joined forces with the Syracuse community to support the Carol Baldwin Foundation. The second annual "A Run for Their Life" hosted a 5K walk/run and a 15K run to raise funds and awareness for breast cancer on October 14th. While several Syracuse ACS members signed up to participate in the 5K run, the weather prevented all but one member, Neal Abrams, from participating. Neal also beat his run time from last year! Congrats Neal! Businesses and organizations from the area set up tents to provide materials, services and activities for participants and their families. With the help of volunteers from East Syracuse Minoa High School and SUNY ESF, tents were setup for the NCW activities. As the weather worsened, we were unable to continue our activities and setup. However, that didn't stop Sally Mitchell from blowing up a few balloons or trying to convince Senator Dan Maffei to convert our current road markers to metric! We will hope for better weather next year!



Our second event was a partnership with the Otisco Lake Preservation Association. On October 20th, Vince Legnetto and his son met with members of the East Syracuse Minoa High School ChemClub at Otisco Lake for a clean up of the lake along with water quality studies. Derek Conant from the Cornell Cooperative met with ChemClub advisor Sally Mitchell and her students: Katherine Babcock, Keelin Abbott, Devin Rowell, and Devin Newlands to perform basic water quality tests to begin monitoring of the lake. Students will begin a monthly testing of the lake in the spring.

Our third event for NCW was held at Destiny USA on October 21st. After convincing Destiny USA that we would not blow up their shopping facility, they agreed to host our event and were excessively supportive in providing us a very large space to hold the event, tables, chairs and waste receptacles. More than 50 volunteers from six colleges and four high schools assisted to put together an event that served over 120 participants! Hands on activities were provided including paper marbling, DNA extraction and face painting. Participants received safety materials, NCW



literature and prizes for their participation. A food drive to support the CNY Food Bank was also held during our event. Non-perishable food and funds were collected for donation to the food bank. Destiny USA served as a terrific location to attract members of the community that may not have otherwise participated in a science event. Destiny USA has expressed their interest in having us return in future years.

NCW finished up with volunteers from the East Syracuse Minoa and the Bishop Ludden ChemClubs hosting the hands on science on October 27th at the annual Spooktacular that takes place each year at East Syracuse Minoa High School. The Syracuse Section of ACS has been volunteering at this event each NCW for the past five years. Thank you to all of the volunteers who helped make all of these activities successful events!



October Meeting - Chemistry and Waste Water Treatment

By: Bill Ayling

On October 11, 2012, the Syracuse Section of the American Chemical Society (ACS) and the Central New York Chapter of the New York Water Environment Association (NYWEA) hosted a meeting entitled *Chemistry and Wastewater Treatment*. The meeting which was held at the Rosamond Gifford Zoo in Syracuse, NY attracted an audience of approximately 75 including waste water treatment professionals, regulators, engineers, and high school chemistry students. The full day meeting included lunch for attendees and vendor exhibits.



Two members of the Syracuse Section of ACS were presenters at the event:

Charles Driscoll, Ph.D. of Syracuse University discussed the regulation of methyl mercury production (a redox sensitive process) in Onondaga Lake related to nitrate concentrations. Marked reductions in methyl mercury and deposition of organic matter occurred in the lake following additions of nitrate. The control of methyl mercury (the most toxic form of mercury in the lake) is an important biogeochemical improvement for the lake's ecosystem.

With the theme of chemistry and biology matter, Robert Santore of the consulting engineering firm HDR/HydroQual in Syracuse discussed how current water quality regulations for metals that rely only on water hardness values are greatly improved by including toxicity testing and water chemistry measurements to develop site-specific water quality standards. The Biotic Ligand Model (BLM) developed by Mr. Santore and his colleagues was cited as a cost effective approach to evaluate the potential toxicity of metals in water. Several case studies were presented to demonstrate the uses of the BLM.

Both Dr. Driscoll's and Mr. Santore's research have been published previously in the ACS journal *Environmental Science & Technology*.



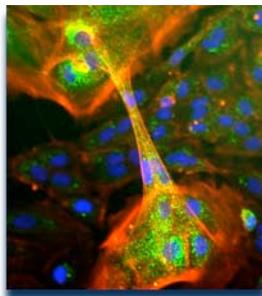
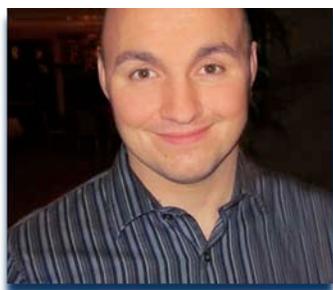
Five additional presenters rounded out the program with topics related to the treatment of pharmaceuticals and personal care products in wastewater, phosphorus loading, real-time monitoring, and treatment of landfill leachate for ammonia removal.

Want up-to-the-minute information about the section? Bookmark <http://syracusesection.sites.acs.org> to get all the latest news and events!

November Meeting - HEARTS, AIRWAYS & BRIDGES: A Story of Cell Communication

By: Bill Ayling

On Thursday, November 8, 2012, Dr. Brett Zani, whose hometown is Tully, NY, spoke about cell-to-cell communication, the basis of all biology in multi-cellular organisms. The presentation, which was hosted at the Syracuse Biomaterials Institute, was attended by approximately 40 people. The audience included several high school students from Tully High School (where Brett graduated from) and East Syracuse Minoa High School. Prior to the presentation, guests started the evening with socializing and appetizers.



Dr. Zani is the Department Head of the Concord Biomedical Sciences and Emerging Technologies in Lexington, Massachusetts. His biomedical research background ranges from molecular cardiology and cancer biology to cardiovascular physiology and tissue regeneration.

Through biochemical and physical interactions, cells direct all physiology from development and tissue homeostasis to disease and injury, and in turn, tissue repair and regeneration. Dr. Zani's research discovered cell communication pathways, called epithelial (EP) bridges that allow for the transfer of signals and components over much longer distances than observed by pathways investigated by others, and one type of EP bridge that may even facilitate an entirely new form of cell migration. Understanding cell to cell communication via such cellular extensions is critical evaluating basic physiological processes including embryogenesis, tumorigenesis, and the immune response. Inflammation blocks EP bridge formation and the resulting reduction of cell communication may play a role in the progression of some diseases.



The Syracuse Section of the ACS Presents



An Introduction to the new CNY Biotech Accelerator

Remarks, outlook and a tour of the facility included

Date:

Tuesday, January 22nd

Time:

5:30 pm refreshments

6:00 Talk and Tour

Location:

841 East Fayette Street
Syracuse, NY 13210

RSVP

to Neal Abrams,
nmabrams@esf.edu
by 1/17/13

February meeting:

Interactive Dinner and Dessert
Webinar, 2/28/13



VISION: The CNY Biotech Accelerator strives to be a globally recognized nexus for accelerating biomedical and bioindustrial products to market.

MISSION: To support university-industry partnerships that discover, develop and deploy innovative products for the bioscience marketplaces. The CNY Biotech Accelerator will provide growth-oriented companies essential business acceleration services and access to industry-specific development resources.



Syracuse Chemist

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Deadline for material:

Chemists will be published every other month beginning in January. The deadline for submitted materials will be the 15th of every even numbered month (Ex. 2/15 for the March issue). Please submit print ready materials to Michelle Boucher mboucher@utica.edu

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Organized as the Syracuse Chemical Society in 1902 and chartered as a section of the American Chemical Society in 1907, the Syracuse Section now includes Central New York counties of Cayuga, Cortland, Madison, Oneida, Onondaga, Oswego and Seneca.

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