



ISOTOPICS

The Cleveland Section of the American Chemical Society

Volume 95 Issue 1

January 2019

On Deck:

T.B.D.

January Meeting Notice

Past Chair Night

Wed. Jan. 16, 2019

Flat Iron Cafe

1114 Center St, Cleveland, OH 44113

<https://www.flatironcafe.com/>

4:30 pm	Executive Committee Meeting
5:30 pm	Social/Networking
6:15-7:00 pm	Dinner
7:00-8:00 pm	Presentation

Cleveland ACS Officers

Chair:

W. Chris Boyd
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Chair-Elect:

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Isotopics

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http://www.csuohio.edu/sciences/dept/cleveland_acs/

“The Remarkable Influence of Chemistry on Cancer: A Glimpse into the Past, Present, and Future of Chemotherapy”

Presentation by Prof. Anthony Berdis, Chemistry Department, Cleveland State University and the Center for Gene Regulation in Health and Disease

For more information about Dr. Berdis, please visit his webpage:

<https://www.csuohio.edu/grhd/faculty/anthony-berdis>

DINNER RESERVATIONS Please RSVP for the dinner by the end of Friday January 11th, by emailing Dr. Chris Boyd (w.c.boyd59@csuohio.edu). At the event, we can take credit card payments, checks made out to “Cleveland ACS”, or cash. The cost is \$20 for members and guests, \$10 for retirees or unemployed, and \$5 for students.

From the Desk of Past Chair

By Michael J Levy

Past Chair of the ACS Cleveland Section

It is hard to believe how quickly my time as ACS Cleveland Section chair has passed. I am very thankful for the opportunity to serve, and I am especially thankful for the support of our dedicated, talented, and industrious Executive Committee. I am very appreciative of your guidance and insight. We do have quite a team! I look forward to working with all of you this year as past chair.

In 2015, the ACS Cleveland Section developed a Strategic Plan—outlining goals and identifying strategies to more effectively serve our membership. One of goals established was to *‘capitalize on our existing programs and increase our presence and participation in outreach activities to the greater Cleveland chemistry community’*. We worked toward achieving this goal by promoting our events and activities through active social media (*if you are a Facebook user, please follow our page!*) and through our updated website. One of our marquee annual events, *The Meeting-In-Miniature (MIM)*, was held at Oberlin University this past March. The MIM plenary lecture, provided by Dr. Emily Pentzer (CWRU), was “Using 2D Nanoparticle Surfactants to Build Hybrid Materials”. The meeting, both a presentation symposium and networking opportunity, provided undergraduates and graduate students with an opportunity to feature their research. The meeting was very well attended and was a great success. We also had strong participation in our annual *National Chemistry Week (NCW)* (“*Chemistry is Out of This World*”) and the *Chemistry Olympiad*. I would to thank Bob Fowler and Anne O’Connor for their leadership in planning and coordinating these events!

We planned our 2018 monthly meetings with a focus on increasing the diversity of our membership. We designed the schedule of meetings to be relevant to students, academia, and chemists in industry.

Here are some of our meeting highlights:

Our Section’s January Past Chair’s Night was held at The Speakeasy in Ohio City. Past Chairs were invited to enjoy the evening with us. Five past chairs were in attendance, which allowed us to thank them again for their service. In addition, we heard a presentation from Stephanie Vivod from NASA about new aerogels used in insulators.

In February we attempted a more non-traditional meeting—inviting Dr. Alexander Sich to present information about the Chernobyl nuclear incident. Dr. Sich, a Ukrainian-American physicist, discussed his published accounts of what happened to Unit-4 after it was destroyed—a technical narrative that remains unchallenged to this day. The meeting was hosted at the Ukrainian Museum Archives (Tremont, OH)—an especially appropriate venue.

April’s Education Night meeting was held at Cleveland State University. Awards were presented to students who participated in the annual Northeast Ohio Science and Engineering Fair. In addition, we listened to an intriguing presentation by Dr. Ruth Ann Armitage (Eastern Michigan University) about the archaeological chemistry of natural dyes. Dr. Ruth Ann was a dynamic presenter and resonated with the student attendees.

The 2016 Morley Award event in May was held at the Michaelson Morley Restaurant on the campus of Case Western Reserve University. In addition to excellent food and drink, an engaging presentation was provided by the Morley Awardee—Dr. Dennis Stuehr.

In September, Dr. Robert Thompson from Oberlin College was invited to speak to the section regarding the analysis of natural botanicals (pygeum) as potential alternatives to traditional pharmaceuticals for treatment Benign Prostatic Hyperplasia (BPH). It was a relaxed presentation in a casual dinner setting.

The October meeting was held at Hansa

Brewery. Beer and chemistry meetings seem to be a great combination! Robert T. Graf from the Lubrizol Corporation provided an overview of recent polymer developments. It was an industry focused evening with several guests and students in attendance.

Our November meeting, held at Cibreo Kitchen in the Cleveland Playhouse Square district, featured our very own Executive Committee member, Dr. Lisa Ponton, who provided a presentation explaining how Mary Shelly, author of the Frankenstein story, was influenced by the excitement of the scientific discoveries at the turn of the 18th century —inspiring a new genre of literature.

Our section also finalized the revision of ACS (LS-Cleveland) bylaws in 2018. The bylaws revisions were reviewed by the Executive Committee, voted on by the membership, and approved by Barbra Polansky, the ACS National Liaison to Constitution and Bylaws. The revised bylaws have been posted on the ACS (LS-Cleveland) site. A big thank you to Dwight Chasar and the members of the Executive Committee for this accomplishment!

It has been an encouraging year and has been a great opportunity for me to expand my interactions with fellow chemists in the Cleveland section. I am looking forward to the year ahead, to seeing all of you at our monthly meetings, and to working with you on achieving our goals!

Lastly, please welcome our newly elected Executive Committee members, who will serve the Cleveland LS membership in the coming year.

Chair Elect: Geneviève Sauvé
Treasurer: Regina DiScipio
Director: Lisa Ponton
Director: Mekki Bayachou
Trustee: David Orosz
Trustee: Theresa M. Nawalaniec

Cheers!

Michael J. Levy, 2019 past chair

Announcement: CAREER Fair in Cleveland

Career Navigator LIVE presents ACS Career Day Cleveland, February 23, 2019 8:30 am-4:00 pm.

How do you plan to further your career in 2019? American Chemical Society is bringing a one-of-a-kind free career day to your community. Enjoy breakfast and lunch while receiving personalized career advice from leading employers in your field. #ACSCareerDays are where meaningful connections are made!

Register now for one amazing day packed with professional skill-building opportunities, networking activities, and interactive workshops designed to navigate your career. Registration is free and required to attend.

<https://www.acs.org/content/acs/en/careers/career-fair/northern-ohio.html>

Announcement: MIM 2018

Mark your calendars! This year's Meeting in Miniature (MIM) will be Wednesday March 13th at John Carroll University.

Announcement: ACS Program-in-a-Box presents The Evolving Periodic Table

This year is the International Year of the Periodic Table and groups around the U.S and the globe will participate in a live celebration, Tuesday, February 26th, 6:45 pm ET. Explore the early efforts of scientists to organize the elements, be the first online to answer elemental "Table Trivia" and learn how the Table continues to grow with new super heavy elements.

How it works: Groups who register by February 1st will receive a Free Box of raffle prizes, handouts and other hosting materials for the event (target audience is collegiate-level students and above, though it may be appropriate for certain high school groups – if you would like more info to organize a group, email

multimedia@acs.org).

The Cleveland Section is considering organizing a group. If you are interested in participating in our group, please email Michael Kenney (Michael.kenney@tri-c.edu) by January 30th, 2019. If we have enough interest, we will get together and learn about the Periodic Table!

Discoveries: Sprayable foam that slows bleeding could save lives

ACS Biomaterials Science & Engineering

Traumatic injuries, whether from serious car accidents, street violence or military combat, can lead to significant blood loss and death. But using a material derived from crustacean shells, scientists have now developed a foam that can be sprayed onto an open wound to stop the bleeding. They report their successful tests on pigs in the journal *ACS Biomaterials Science & Engineering*.

For some serious injuries to arms and legs, medics can apply pressure to keep bleeding in check. But for major trauma to the torso, particularly when it affects vital organs, compression can make the situation worse. Currently, first responders have no way to stop this kind of bleeding, which is a leading cause of death among young adults and the most common cause of death from combat-related injuries. Srinivasa R. Raghavan, Matthew B. Dowling and colleagues wanted to find a simple way to treat these wounds quickly.

The researchers developed a sprayable foam made of modified chitosan, a biopolymer derived from the shells of shrimp and other crustaceans that is already being used in other types of non-foam wound dressings. In tests on pigs, the spray reduced blood loss by 90 percent.

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