



The Crucible

Pittsburgh Section of the American Chemical Society
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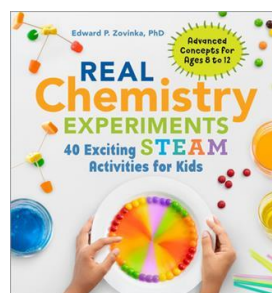
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Get to Know A Member – Edward P. Zovinka, Ph.D.



Fun fact about Ed: He is a published author!
*Real Chemistry Experiments: 40 Exciting STEAM
Activities for Kids (Real Science)*



1. What is your work and ACS (if applicable) title?

Professor, Inorganic Chemistry. Served as Councilor, Chair-Elect, and 2023 Chair

2. How many years have you been in the ACS?

35 years!

3. What is the biggest benefit of ACS Membership?

Meeting so many great people!

4. What did you want to be when you were a child?

A baseball player and a veterinarian

5. What made you fall in love with Chemistry?

Great teaching by my General Chemistry professor, Dr. Ben Huddle!

6. What is your favorite part of your career?

Learning new science with amazing students and colleagues.

7. Which chemist, part or present, would you like to meet and why?

Svante Arrhenius! He discovered ions, acids, global warming, had to fight for his PhD, and the list goes on! Plus, what a great name! Although if you look at pictures, he appears a bit of a stern sort of person...



Congratulations to the 2022 Distinguished Service Award Recipient!

The Distinguished Service Award was established in 2007 by the Pittsburgh Section of ACS to expand and replace the predecessor Chairman's Award of the section. Both recognize outstanding volunteer service to the section. The Award, consisting of a plaque, is presented annually at a section dinner open to the public.

Members of the Pittsburgh Section, past or present, who have provided outstanding service in advancing the Pittsburgh Section are eligible for consideration. Nominations for the Pittsburgh Award are solicited from the membership of the Pittsburgh Section.

Dr. Matthew Price is a Professor of Chemistry and Department Chair of the Chemistry Department at PennWest University (California campus). Matthew has served in multiple elected officer positions during the last decade. In 2015, Matt served as the Secretary of the local section. After serving in this role, Matt continued to stay involved in the section and was chosen as Chair-elect during 2019. Matthew's term as Chair was during 2020. This was an extremely challenging year to serve as Chair as there were many routine programs and events that no longer took place or were completely reimaged. During this time Matt exhibited the ability to stay very positive and keep the local section active during this extremely difficult time. He pivoted to virtual meetings and did everything he possibly could to keep the local section vibrant. Based on Matt's completion of the Local Section annual report for 2020, Pittsburgh was nominated for and received the ChemLuminary Award for Outstanding Performance in the Medium-Large Sized Section category in the following year (2021). After Matt completed his three-year term in the Chair succession roles, he ran and was elected to his current role as Treasurer. He started his term strong in the beginning of 2022, with updating and publishing the Warrant for processing business transactions. He also updated the codes for tracking expenses and has worked with our accountant Mark Juzwa to stay compliant with local section business practices. He is a selfless colleague who devotes hours of time volunteering because he enjoys it, and he likes to use his skill set to help solve problems. He doesn't do this work to be in the spotlight or to gain accolades or recognition.



This biography was provided by Kimberly Woznack of PennWest.



AMERICAN CHEMICAL SOCIETY PITTSBURGH SECTION AWARD BANQUET

Honoring
2022 PITTSBURGH AWARD RECIPIENT
Mr. Dennis Simpson

2022 DISTINGUISHED SERVICE AWARD WINNER
Dr. Matthew J. Price

TUESDAY, FEBRUARY 7, 2023

Grand Concourse
100 West Station Square Dr.
Pittsburgh, PA 15219

Social Hour: 5:30 pm Cash Bar
Dinner: 6:15 pm
Award Presentation: 7:15 pm

DINNER REGISTRATION

Registration must be submitted by Wednesday, February 1, 2023: \$45.00; Student or Post-Doc \$25.00
Parking is not included in the cost but is available in lots adjacent to Station Square or through valet at
the Grand Concourse.

To officially register for the event, payment must be received. Please register electronically at
<https://pittsburghacs.org/pittawardsbanquet/>

In lieu of electronic payment checks payable to **ACS Pittsburgh Section** are accepted; mail to Dr. Edward
P. Zovinka, Department of Chemistry, Saint Francis University, PO Box 600, Loretto, PA 15940. Due to
delays in mail processing please also send an email to Ed at ezovinka@francis.edu. Include the following
information along with your check:

NAME _____

ADDRESS _____ **STATE** _____ **ZIP** _____

EMAIL _____

AFFILIATION _____

MEAL CHOICE (Please choose one per guest):

Petite Filet Mignon

Lobster & Shrimp Stuffed Salmon

Vegetable Ravioli

If you have any special dietary concerns, please let us know; email nbotcha@andrew.cmu.edu.

Two Pittsburgh Local Section Members Win National ACS Awards

Published in the January 2 issue of *Chemical & Engineering News*, [2023 ACS National Award winners—Part I](#)

2016 Pittsburgh Award Winner and Lord University Professor of Chemistry at Carnegie Mellon University Neil M. Donahue won the 2023 National ACS Award for Creative Advances in Environmental Science and Technology. This award is sponsored by the Aerodyne Research and the ACS Division of Environmental Chemistry and will be presented for the inception and development of the volatility basis set to represent organic particulate matter in the atmosphere

Donahue on his scientific hero: “My father, Thomas Donahue, was a real rocket scientist who started the use of sounding rockets with leftover ordinance. He ultimately discovered that ‘Venus was all wet,’ and this was the title he wanted for the article describing findings of the Pioneer Venus Multiprobe.”



Credit: Courtesy of
Neil M. Donahue

What Donahue’s colleagues say: “Neil has been a principal player in virtually every important intellectual development in the field of atmospheric chemistry and aerosol formation over the past 2 decades. His work has consistently shifted the paradigms of atmospheric chemistry.”—John Seinfeld, California Institute of Technology

2012 Pittsburgh Award Winner and Distinguished University Professor at the University of Pittsburgh Peter Wipf won the 2023 National ACS Award for Creative Work in Synthetic Organic Chemistry. The award is sponsored by MilliporeSigma and will be presented for the discovery of innovative methods in heterocyclic and strain-release chemistry and the development of novel strategies to synthesize complex natural and unnatural molecules.

Wipf on his most memorable project: “Two of my students discovered serendipitously an early-transition-metal-mediated cascade reaction that introduced nine new C–C bonds. When we thought about possible mechanisms, we speculated that a bicyclo[1.1.0]butane might serve as a key intermediate. Amazingly, this actually turned out to be the case, and it started a still ongoing, most stimulating research effort on the chemistry of bicyclobutanes in my lab.”



Credit: Courtesy of
Peter Wipf

What Wipf’s colleagues say: “Peter’s work has contributed significantly to virtually every aspect of modern organic synthesis. He is one of the scientific leaders in this field, and dozens of his novel small molecules are used as probe molecules for biological pathways and as therapeutic lead structures.”—Dennis Curran, University of Pittsburgh

**SSP/SACP Joint Meeting
Wednesday, January 18, 2023
Duquesne University**



5:00 PM – Social Hour
5:30 PM – Technology Forum
6:30 PM – Dinner
7:15 PM – Business Meeting
8:00 PM – Technical Program

SSP Technology Forum

“Effect of Lead on Children”

Dr. Alexis Franks, UPMC Children's Hospital



Biography:

Dr. Alexis Franks specializes in Neurodevelopmental Disabilities, and her area of clinical focus is the care of children with neurogenetic conditions, neurologic congenital anomalies, developmental delays, autism, and neurologic management for children with multiple disabilities. Her research is focused on investigating neurodevelopmental outcomes after pre- and perinatal exposures to exogenous compounds.

Abstract:

Chronic lead exposure in children, while typically avoiding many of the symptoms of acute toxicity, is associated with the slow buildup of the heavy metal throughout tissues and bones in the human body, and has been linked to detrimental cognitive effects, including a decreased cognitive ability. Recent and historical events have shown the need to better anticipate and prevent environmental contaminants & pollutants leading to detrimental outcomes. Leveraging her specialty of neurodevelopment in children, Dr. Alexis Franks from UPMC Children’s Hospital of Pittsburgh (CHP) provides insight on lead contamination in the local area from a current and historical perspective.

SACP Technical Program

“Spatial SILAC—Exploring Spatially-Defined Changes to the Proteome”

Dr. Amanda Hummon, Ohio State University



Biography:

Amanda Hummon earned her AB in chemistry at Cornell University and her PhD in analytical chemistry at the University of Illinois, in the laboratory of Prof. Jonathan Sweedler. She completed her postdoctoral work at the National Cancer Institute. She is currently a Professor in the Department of Chemistry and Biochemistry and the Comprehensive Cancer Center at The Ohio State University. Her laboratory develops mass spectrometric methods to explore cancer tissues, cell cultures, and organoids.

Abstract:

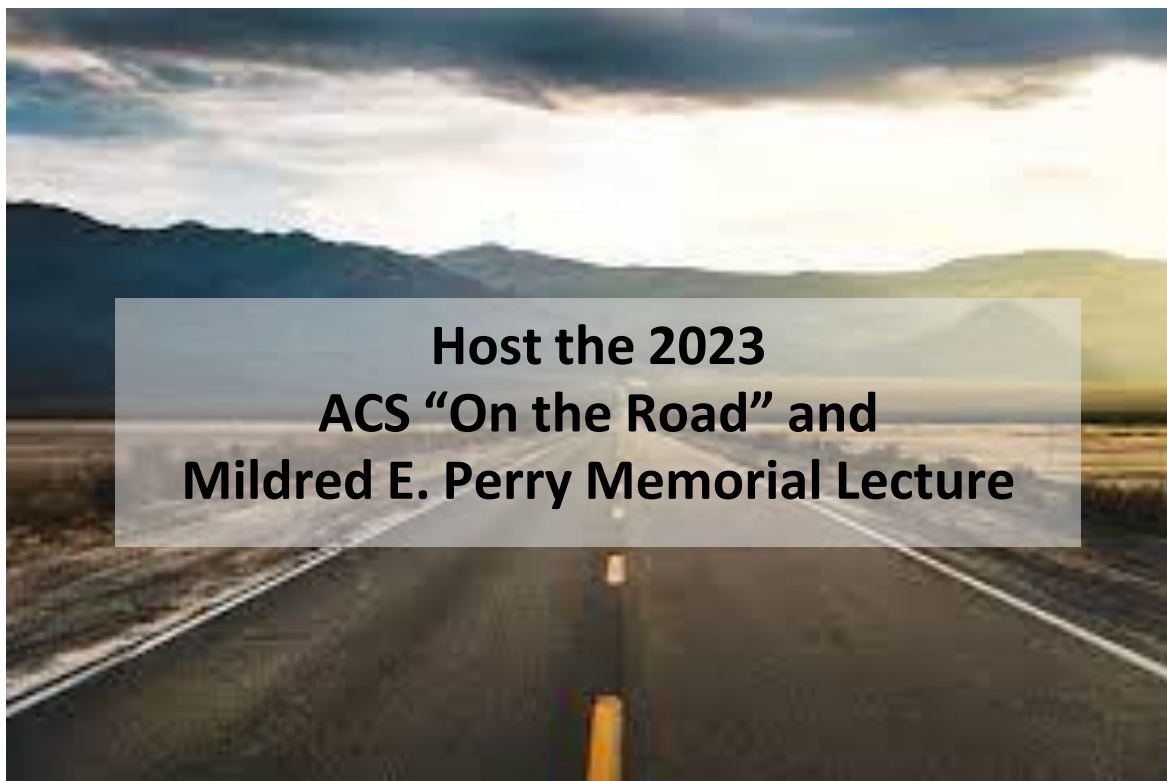
Three-dimensional cell cultures are attractive models for biological research. They combine the flexibility of cell culture with some of the spatial and molecular complexity of tissue. For example, colon cancer cell lines form spheroids, in vitro mimics of poorly vascularized tumors. The spheroids are composed of a central necrotic core, a middle quiescent layer and an outer proliferative layer of cells, similar to a rapidly growing colon tumor. Our laboratory has characterized the distribution of endogenous proteins via MALDI imaging mass spectrometry in colon spheroids and determined that the molecular gradients correlate with the pathophysiological changes in the structure. We have developed Spatial SILAC, a method to selectively label the cells in the distinct chemical microenvironments in the spheroids and assess the proteomic changes in response to drug treatment. We have also developed an approach to employ 3D cell cultures to evaluate the penetration of compounds into cellular masses. Most novel drugs are initially evaluated with 2D cultures before moving directly to costly animal studies. Working with the chemotherapeutics oxaliplatin and irinotecan, our data supports differential penetration of these clinically relevant drugs. We are employing microfluidic devices to enable dynamic dosing, thus investigating the pharmacokinetics and pharmacodynamics of chemotherapy regimes in these attractive model systems. We have also extended our imaging mass spectrometry platforms to the study of patient and mouse-derived organoids, examining the distribution and metabolism of drugs compounds in these clinically relevant specimens.

For complete details and to make a dinner reservation, please visit our society's website. Deadline for dinner reservations is Tuesday, January 11, 2023 by noon.

<https://chemistryoutreach.org/meeting/>



ACS Local Section
Pittsburgh



**Host the 2023
ACS “On the Road” and
Mildred E. Perry Memorial Lecture**

Each year, the Pittsburgh local section features an “On the Road” event, which has the Mildred E. Perry Memorial Lecture. This is a great opportunity for local section chemists to visit your site or campus. The organizers choose the speaker and program details. Past organizers would be happy to share our experiences and websites if the host location is interested. In 2021, this event was hosted by Saint Francis University and featured Dr. Lan Deng from PPG. We encourage hybrid events if necessary! If your institution is located in the Pittsburgh Local Section and you would like to host the 2023 ACS “On the Road” event, please contact ACS Chair, Kim Woznack (woznack@calu.edu).

American Chemical Society Pittsburgh Local Section

Engage and inspire members to unite the diverse chemistry community and share knowledge to benefit our region and its people.
www.pittsburghacs.org



American Chemical Society Pittsburgh Section

www.pittsburghacs.org

Dear Academic ACS Pittsburgh Section Members,

The Pittsburgh Section of the American Chemical Society has budgeted funds to help encourage undergraduate/graduate student participation in national and regional ACS meetings. The awards are intended to help defray meeting registration and travel-related expenses (lodging, transportation, per diem) for eligible students. Awards will be made based on the scientific merit of the paper/poster to be presented, financial need, and preference will be given to ACS members.

To apply for the funds, applicants should complete the attached application and return it by the relevant deadline. The deadlines for receipt of applications are as follows:

- **06/01 (for travel to be completed by 12/31)**
- **12/01 (for travel to be completed by 06/30)**

As noted on the application, students should include an abstract and confirmation (if received) of the paper/poster being accepted for the Meeting. In addition to the application form, applicants should include a recommendation letter from the PI of the project being presented and/or a recommendation letter from another and a personal statement as to the anticipated benefits of meeting attendance.

Applications can be made electronically (*preferred*) by emailing the application to Heather Juzwa (hljuzwa@shimadzu.com or heather_sapko@hotmail.com) or by mailing a hard-copy application (Pittsburgh Section ACS Travel Grants / Heather Juzwa / Center / 321 Winners Circle / Canonsburg, PA 15317).

Since 2013, the Pittsburgh Section of the ACS has awarded up to four \$500 grants each year to aid our undergraduate/graduate student members in presenting papers or posters at ACS Meetings. This is an ongoing program in our Section, and details will be updated on our website (www.pittsburghACS.org) as necessary.

Applicants will be notified via email that their application was received. All efforts will be made to announce awards within two weeks of the application deadline, and all applicants will be notified of the final committee decisions. Our Section is looking forward to helping increase the participation of local students in ACS conferences. If you have any questions, please do not hesitate to contact me.

Sincerely,

Heather Juzwa, ACS Pittsburgh Section Student Travel Grants, Chair
Senior Field Sales Engineer, Shimadzu Scientific Instruments, Inc



American Chemical Society
Pittsburgh Section

www.pittsburghacs.org

Application Deadline	Travel Completion Date
December 1	June 30 (subsequent year)
June 1	December 31 (same year)

Name of Applicant: _____

Name of Institution: _____

_____ Undergraduate Student / Year

_____ Graduate Student / Year

Mailing Address to Receive Payment if Awarded:

Email: _____ Phone: _____

PI: _____

ACS Membership No.*: _____

**If you do not know your ACS number, please email hljuzwa@shimadzu.com to receive it by email.*

Meeting Location: _____ Meeting Date: _____

Project Title: _____

_____ Paper Presentation _____ Poster Presentation

**Please attach a copy of your project abstract to the application.*

Has your project been accepted? Yes No

**Attach documentation regarding acceptance if received at point of application.*

Will this be your first presentation at an ACS national or regional meeting? Yes No

If no, please list conferences at which you have presented: _____

Purpose of grant: _____

Other funding sources (if any): _____

Personal Statement of anticipated benefits of meeting attendance: _____

Has the applicant received a travel grant from the ACS Pittsburgh Section in the past? Yes No

If your application was selected, the Pittsburgh Section of the ACS would like you to write a short (one page) description of your activity upon completion of the conference for publication in our monthly newsletter, The Crucible, and on our website. The description is due within 30 days of the meeting attended. Photos are welcomed and encouraged.

I am willing to complete this report: Yes No

Signature: _____

Date: _____

Send completed hard-copy applications and supporting documentation to:

Pittsburgh Section ACS Travel Grants

Heather Juzwa, 321 Winners Circle, Canonsburg, PA 15317

Electronic copies of completed applications should be sent to hljuzwa@shimadzu.com and heather_sapko@hotmail.com. Be sure to place "Pittsburgh Section ACS Travel Grants" in the subject line.



The Crucible

The Crucible is published monthly, August through May. All statements and opinions expressed herein are those of the editors or contributors and do not necessarily reflect the position of the Pittsburgh Section.

Editors: Alysia Mandato and Niharika Botcha, crucible@pittsburghacs.org

2023 Pittsburgh Section Officers

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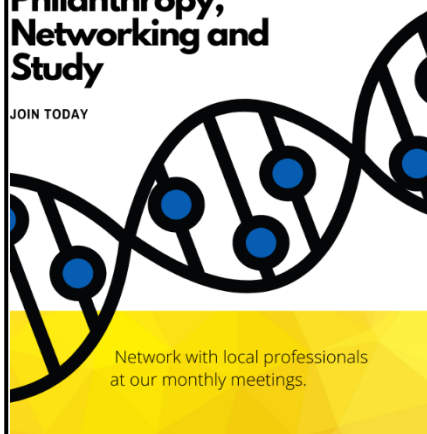
Spectroscopy Society of Pittsburgh



chemistryoutreach.org

Science Outreach through Philanthropy, Networking and Study

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Society for Analytical Chemists of Pittsburgh
chemistryoutreach.org



Advancing Analytical Chemistry through Science Education

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Network with local professionals at our monthly meetings.

Advertise in The Crucible

	1X	3X	6X	10X
Full Page	\$120	\$115	\$100	\$75
Half Page	\$75	\$70	\$60	\$45
3.5" x 2"	\$50	\$45	\$25	\$20

Volunteer with Us!

We are always looking for new people to join the Pittsburgh Section Executive Committee. Email our Chair to inquire about opportunities.

The Crucible Deadline

The deadline for items submitted to The Crucible is the 25th of the month prior to publication. For example, all items for the February 2023 issue must be to the editor by January 25th, 2023.

ACS Regional Awards – Apply Today!

More information can be found [here](#)