



**American Chemical Society - Pittsburgh Section
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**Congratulations to our Newly Elected Officers of the
2023 Executive Board!**

Chair-Elect: Alysia Mandato

Secretary-Elect: Samuel Leung

Treasurer-Elect: Niharika Krishna Botcha

Directors: Toby Chapman and Ronghong Lin

Councilors: Rich Danchik and Kimberly Woznack

Alternate Councilor: Kevin Noonan

Thank you for participating in our important election process!

Farewell from our 2022 Chair, Kim Woznack

It has been my honor to serve the Pittsburgh Local Section as Chair during the year 2022. It was really an exciting time for the section to resume more of its regular events that had been cancelled or postponed previously due to the COVID pandemic. I am extremely grateful for the hard work and dedication of the other officers serving the local section and for the rest of the enthusiastic volunteers. I am in the process of assembling the local section annual report to submit to national, and as I do that, I am very impressed by the portfolio of events/programs that we've executed this year. We could not have done this excellent work without our dedicated volunteers.



During November, a small group of local section volunteers undertook the ACS Strategic Planning process. This group participated in pre-work and an additional 12 hours of planning. The plan is currently being reviewed by the Executive Committee and will be discussed at our December meeting. Once approved we will share with the entire local section our updated Vision, Mission, and Goals for the next 5-year period. Stay tuned to the next issue of the Crucible for details.

We are always looking for more people who are interested in being active locally, so if you are interested in getting more involved in 2023, please email the incoming Chair, Dr. Ed Zovinka (ezovinka@francis.edu) and introduce yourself. We'll be putting out a call for specific positions once we launch our strategic plan. I look forward to seeing many of you and working with you on future local section events and programs next year.

I hope you all have a safe and healthy holiday season!

Kim Woznack

Chair, 2022



Congratulations to the 2022 ACS Pittsburgh Award Recipient!

The Pittsburgh Award was established in 1932 by the Pittsburgh Section of ACS to recognize outstanding leadership in chemical affairs in the local and larger professional community. This Award symbolizes the honor and appreciation accorded to those who have rendered distinguished service to the field of chemistry. The Award, consisting of a plaque, is presented annually at a Section dinner open to the public.

Members of the Pittsburgh Section, or in exceptional cases, nonmembers, who have done work worthy of recognition toward increasing chemical knowledge, promoting the chemical industry, benefiting humanity, or advancing the Pittsburgh Section, are eligible for consideration.

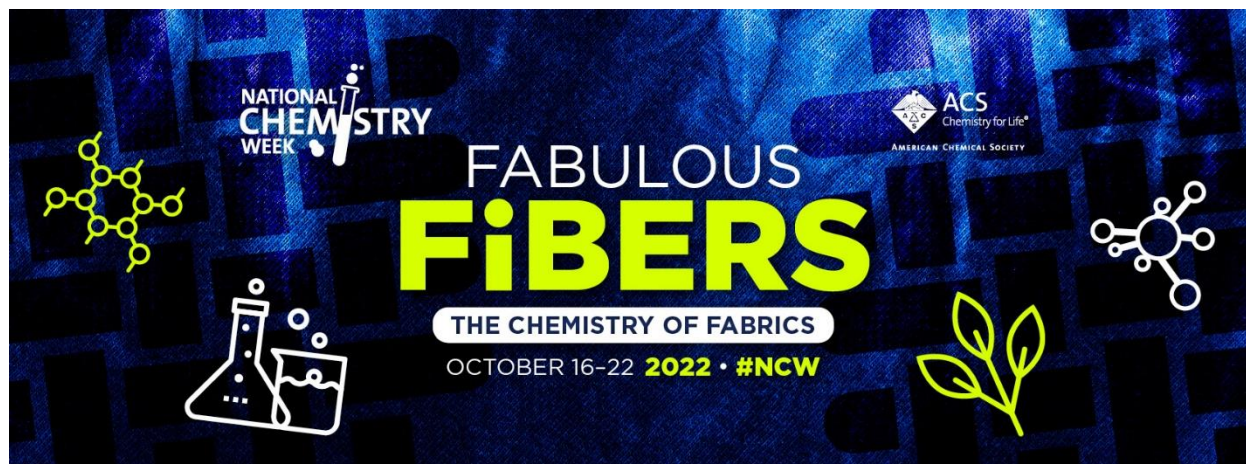
Mr. Dennis Simpson began his career in 1981 after graduating with his B.S. in chemistry from The Pennsylvania State University. He transitioned to working in an industrial setting with exemplary speed, achieving significant milestones very early in his career and initiating an innovation track record that continues to this day. Dennis would later earn a M.S. from Carnegie Mellon University while working full time at PPG.

He has had a tremendous impact on the chemical industry and garnered numerous achievements during his 41-year career. Dennis possesses encyclopedic chemical knowledge and is able to translate that knowledge into novel and innovative technical solutions, yielding products and processes that have fundamentally changed the automotive coatings industry. Dennis approaches challenges holistically and with determination. He is a named inventor or co-inventor on 41 granted U.S. patents.



An ACS member for over 40 years, Dennis has advised dozens of scientists as they entered industry. Dennis has cultivated the talent of present and future leaders through his mentorship, thereby proving his additional value to PPG. His demeanor invites others to seek him out and request his counsel for any number of technical challenges and intellectual property strategies. Additionally, he has actively displayed his community outreach by participating in chemistry discussions and demonstrations through PPG at the Carnegie Science Center.

This biography was provided by Leigh Ann Humbert of PPG.



National Chemistry Week 2022: Illustrated Poem Contest Winners

The ACS Pittsburgh Local sections congratulates the following winners of the NCW 2022 Illustrated Poem Contest. Student artwork was evaluated based on the rules and guidelines established by the ACS National Contest. All first-place winners were submitted for judging at the national prize level. The ACS Pittsburgh Local section recognizes and thanks local teachers for encouraging their students to submit artwork.

For further information: <https://www.acs.org/content/acs/en/education/outreach/ncw/plan-an-event/illustrated-poem-contest.html>

Grade Category: 9-12

1st Place Winner: David K. "A Far Stretching Fabric"

2nd Place Winner: Sadie C. "Wooly and Warm"

Grade Category: 6-8

1st Place Winner: Thomas Q. "Synthetic Fibers of Doom"

2nd Place Winner: Michael Q. "Ode to Moisture Wicking Fabrics"

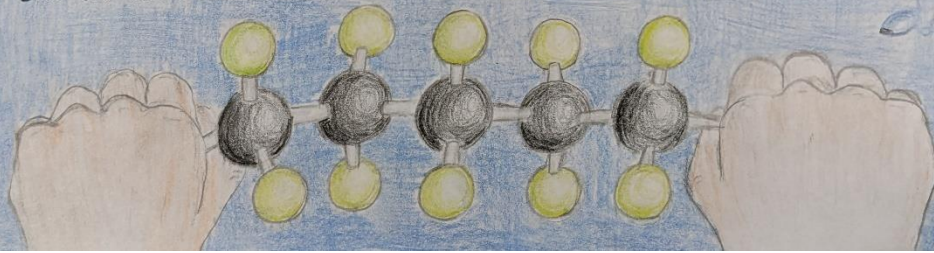
Grade Category: 3-5

1st Place Winner: Isabella P. "My Jacket is Made with Cotton"

2nd Place Winner: Jelani M. "Rayon"

A Far S-t-r-e-t-c-h-i-n-g Fabric

Teflon[®], heated by Gore,
Gore couldn't take anymore;
angrily yanked polytetrafluoroethylene,
and made something no one had ever seen:
before his eyes, eight times its size, like a net,
waterproof and lightweight, air by seventy percent!
Gore-Tex[®] is what he'd invent.



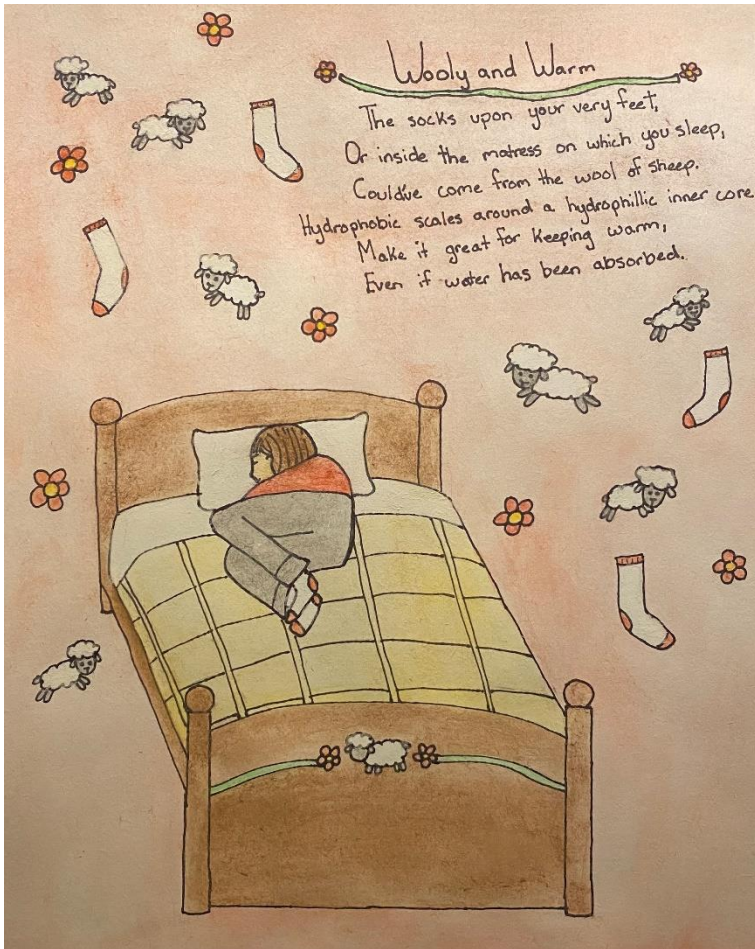
Category 9-12

Top: 1st Place

Bottom: 2nd Place

Wooly and Warm

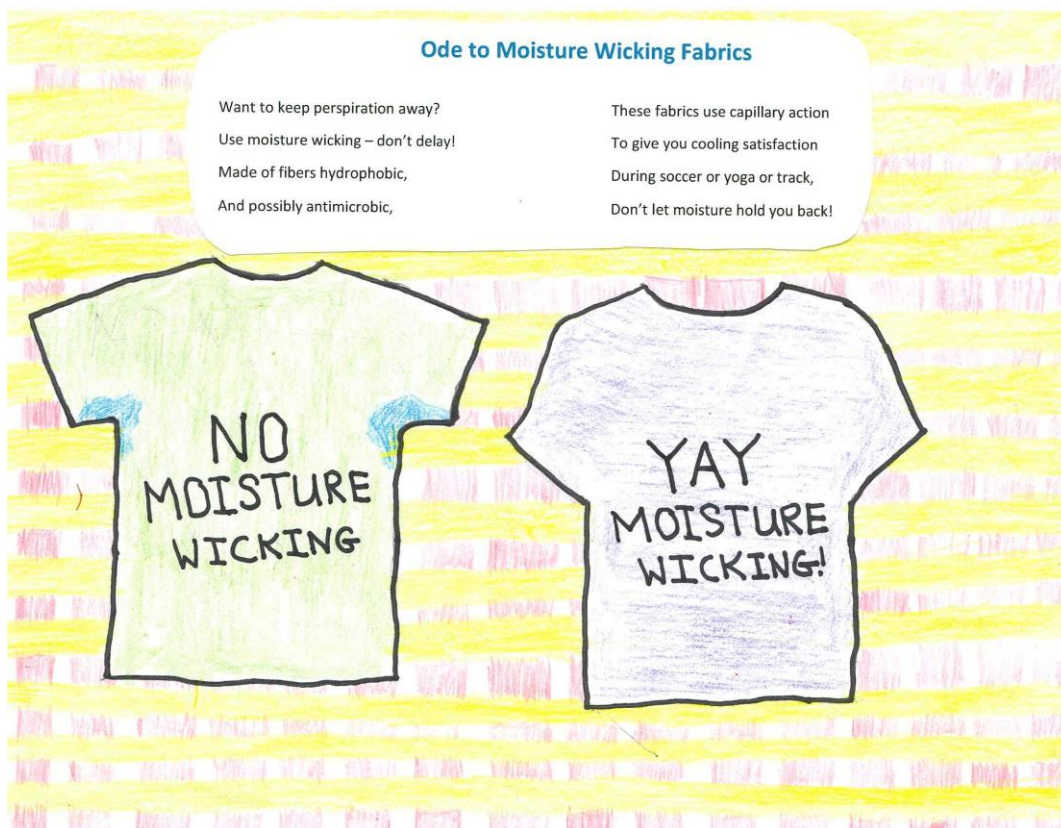
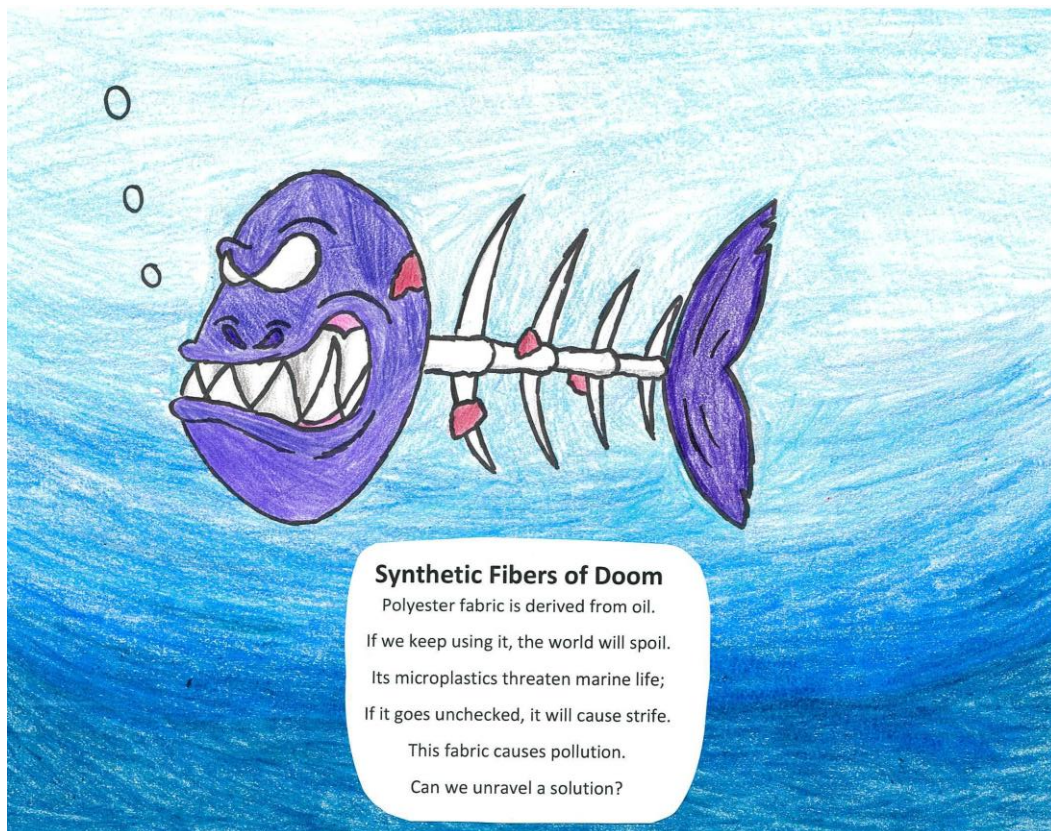
The socks upon your very feet,
Or inside the mattress on which you sleep,
Could've come from the wool of sheep.
Hydrophobic scales around a hydrophilic inner core
Make it great for keeping warm;
Even if water has been absorbed.



Category 6-8

Top: 1st Place

Bottom: 2nd Place



My jacket is made with cotton. Cotton is a soft fabric made with cellulose. Cotton is in jackets, pants, and shirts. My cotton jacket is fluffy, cozy and warm. I love my cotton jacket.



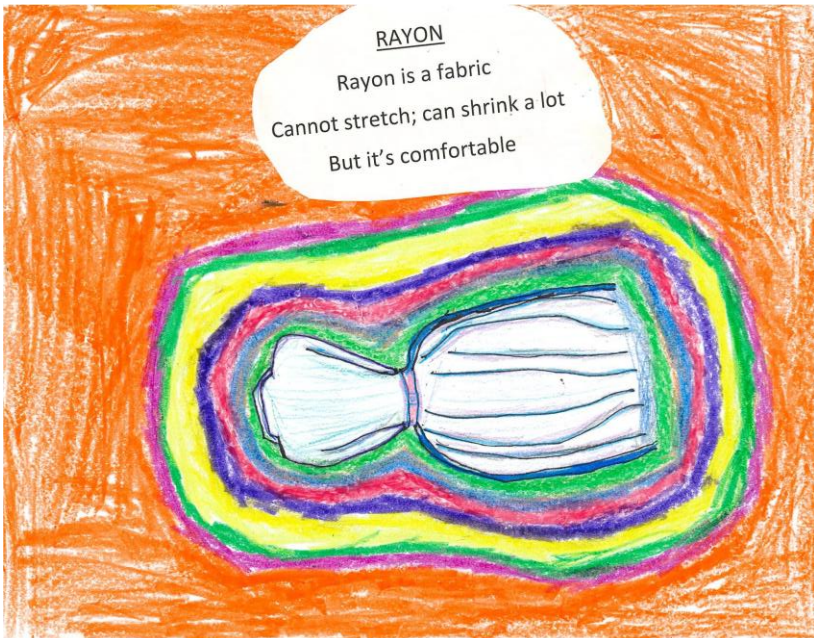
Category 3-5

Top: 1st Place

Bottom: 2nd Place

RAYON

Rayon is a fabric
Cannot stretch; can shrink a lot
But it's comfortable





Join the ACS Pittsburgh Section in Volunteering for the Carnegie Science Center's SciTech Days!

SciTech Days is an exhibitor-style event that connects middle and high school students with real-world scientists, engineers, tradespeople, and other professionals that represent a wide array of STEM fields and career opportunities. Volunteers can either perform hands-on activities with visiting students or serve on a Career Connections panel. If you have participated in ChemFest in the past, the format is nearly identical.

Opportunity #1: 5 - 6 volunteers who can cover a 2-hr shift at the demonstration table

Opportunity #2: 1 - 2 volunteers who can serve on a career panel

When: Friday, December 16th

Time: Between 8 AM and 2 PM, exact time dependent upon shift

Where: The Carnegie Science Center

The ACS PGH demonstration table activity is based on the NCW theme of "Fabulous Fabrics". All materials will be provided.

To volunteer, simply email Evonne Baldauff (ebaldauf@waynesburg.edu) with your availability for December 16th!

**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:

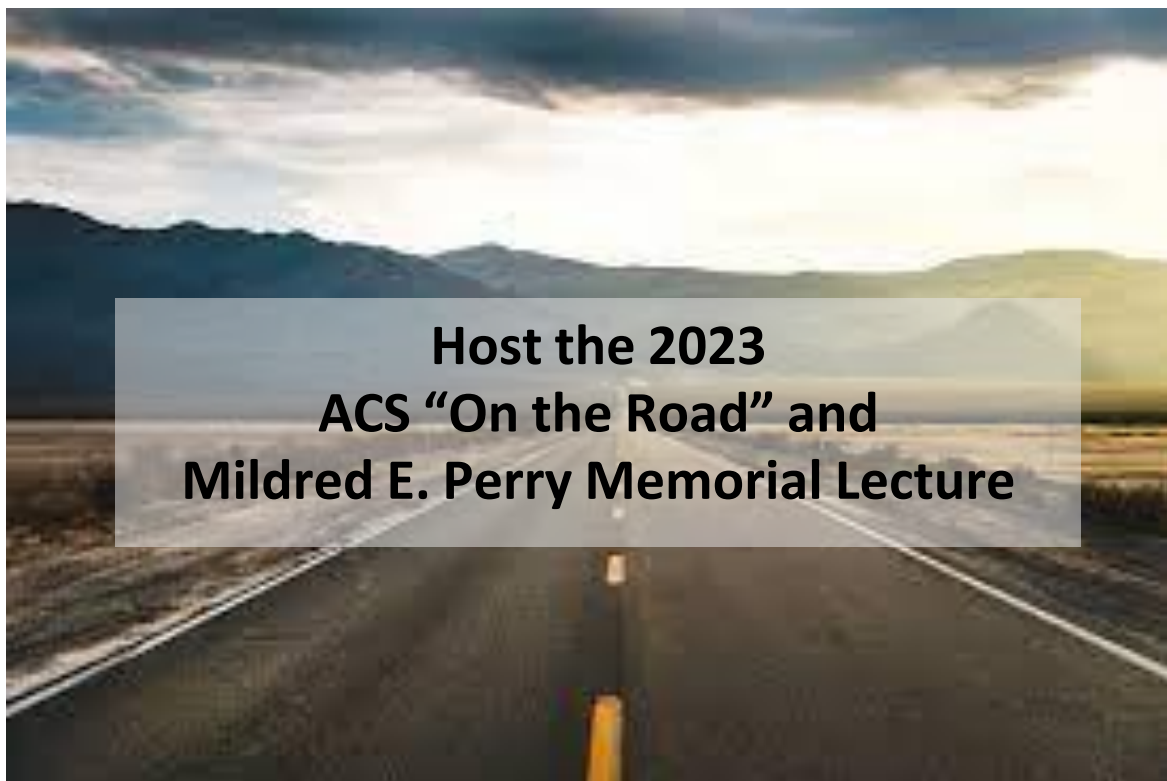
Three-dimensional cell cultures are attractive models for biological research. They combine the flexibility of cell culture with some of the spatial and molecular complexity of tissue. For example, colon cancer cell lines form spheroids, in vitro mimics of poorly vascularized tumors. The spheroids are 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.

Design Editor: Alysia Mandato, crucible@pittsburghacs.org

2022 Pittsburgh Section Officers

Chair

Kim Woznack
woznack@pennwest.edu

Secretary

Alysia Mandato
atm75@pitt.edu

Treasurer

Matthew Price
price@pennwest.edu

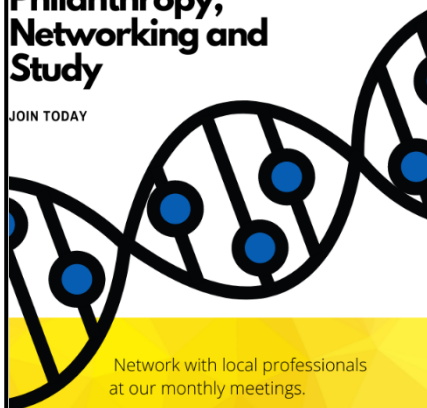
Spectroscopy Society of Pittsburgh



chemistryoutreach.org

Science Outreach through Philanthropy, Networking and Study

JOIN TODAY



Network with local professionals at our monthly meetings.

Society for Analytical Chemists of Pittsburgh
chemistryoutreach.org



Advancing Analytical Chemistry through Science Education

JOIN TODAY



Network with local professionals at our monthly meetings.

Volunteers Needed!

We are always looking for people to join us. If you are interested in volunteering, please contact Heather Juzwa at hjuzwa@shimadzu.com!

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 December 2022 issue must be to the editor by November 25th, 2022.

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

New Ways to Join ACS in 2022

Renew your membership or upgrade to a Premium membership.

See [here](#) for more information

ACS Regional Awards – Apply Today!

More information can be found [here](#)