## Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celebrate Black History Month with ACS</td>
<td>1</td>
</tr>
<tr>
<td>Check out ACS Webinars and the new ACS podcast</td>
<td>2</td>
</tr>
<tr>
<td>February SACP/SSP Meeting</td>
<td>3-4</td>
</tr>
<tr>
<td>Register for the Spring 2022 ACS National Meeting</td>
<td>5</td>
</tr>
<tr>
<td>Call for Abstracts for Upcoming ACS Meetings</td>
<td>5</td>
</tr>
<tr>
<td>WCC/Eli Lilly Travel Award</td>
<td>6</td>
</tr>
<tr>
<td>IUPAC Global Women’s Breakfast</td>
<td>6</td>
</tr>
<tr>
<td>2022 On the Road Announcement</td>
<td>7</td>
</tr>
<tr>
<td>Meeting Registration and Travel Grant Application</td>
<td>8-10</td>
</tr>
<tr>
<td>Business Page</td>
<td>11</td>
</tr>
</tbody>
</table>
Celebrate Black History Month with ACS

5 Black Chemists Who Made a Difference

African-Americans have been making major advances in the chemical sciences for more than 170 years.

St. Elmo Brady

St. Elmo Brady (1884-1966) was the first African-American to receive a Ph.D. in chemistry in the U.S. After receiving his doctoral degree from the University of Illinois at Urbana-Champaign in 1916, Brady taught and held leadership roles at historically black universities and colleges, including Tuskegee Institute, Howard University, Fisk University, and Tougaloo College, leaving an impressive teaching legacy of strong graduate and undergraduate chemistry programs.

George Washington Carver

George Washington Carver (1869-1943) was born a slave. He worked hard to gain an education and become a scientist. He taught at Tuskegee Institute and became the “Peanut Man” who discovered myriad uses for the “lowly” legume. He developed hundreds of new uses for Southern agricultural crops and taught poor Southern farmers methods of soil improvement.

Percy L. Julian

In 1935, in Midshall Laboratory, DePauw alumnus Percy L. Julian (1899-1975) first synthesized the drug physostigmine, previously only available from its natural source, the calabar bean. His pioneering research led to the process that made physostigmine readily available for the treatment of glaucoma. It was the first of Julian’s lifetime of achievements in the chemical synthesis of commercially important natural products.

Mae Jemison

The first African-American woman to fly in space. Mae Jemison (1955-) holds a B.S. in chemical engineering. In 1992, she served on an eight-day space shuttle mission that conducted microgravity investigations in materials and life sciences while orbiting Earth 127 times. Jemison was a co-investigator on the bone cell research experiment flown on the mission. She was also the first astronaut to appear on Star Trek.

Norbert Rillieux

Norbert Rillieux (1806-1884), widely considered to be one of the earliest chemical engineers, revolutionized sugar processing with the invention of the multiple-effect evaporator under vacuum. The discovery, patented in 1846, enabled production of better-quality sugar at lower cost. Rillieux’s invention is widely recognized as the best method for lowering the temperature of evaporation in other industries and for saving large quantities of fuel.

Read about Black Chemists throughout history, including George Washington Carver, Percy Lavon Julian, and Marie Maynard Daly.

Check out ChemDiversity, the ACS Committee on Minority Affairs

Learn about how ACS is advancing their value of diversity, equity, inclusion, and respect

Watch a video from ACS highlighting the achievements and contributions of African American chemists.

St. Elmo Brady—A National Historic Chemical Landmark

The American Chemical Society (ACS) has honored the achievements of several African-American chemists, including George Washington Carver, Percy L. Julian, Norbert Rillieux and, most recently, St. Elmo Brady, with the designation of a National Historic Chemical Landmark. The Landmarks program (www.acs.org/landmarks) recognizes major advances in the chemical sciences.
Did you know that as an ACS member, you have access to webinars specifically produced by ACS?

Upcoming February Webinar Topics include:

- Feb 9th, 2-3pm Eastern time, Zebras or Horses? How a False Sense of Security can Lead to Lab Accidents
- Feb 17th, 2-3pm Eastern, 10 Tips for Creating Abstracts with Substance and Style
- Feb 23rd, 2-3 pm Easter, Why You Need to Care About Ethics

Click [here](#) for more information and to register.

ACS just launched a science podcast called “Tiny Matters”. The podcast covers things small in size but big in impact. Their first episode explored the question, “How are dinosaur fossils helping scientists predict our planet’s future?” If you’re looking for something educational and interesting to keep your workday exciting, check out “Tiny Matters” on Spotify, iHeartRadio, or wherever you listen to podcasts! Click [here](#) to read more about it.
SSP TECHNOLOGY FORUM (Will Not Be Offered Virtually)

Paul Gardullo, Ph.D.
Co-Director of the Center for the Study of Global Slavery
Smithsonian National Museum of African American History and Culture

“Slave Wrecks Project"

Biography

Dr. Gardullo has over twenty-five years of experience professionally and academically researching, presenting, writing about and collaborating on American, African American, and Afro-Diasporan history and culture. He served on the core team building the NMAAHC’s foundational collections as well as conceiving and crafting its inaugural exhibitions. He lectures, curates, consults, and advises nationally and internationally on a number of topics including slavery and the making of the modern world; Reconstruction and its legacies; The Power of Place, Race and Memory; Museums as sites of transformation, reckoning, and change; Community engagement and Public History and Humanities. He has contributed to multiple documentaries and appeared on CBS 60 Minutes, ABC, NBC, BBC, Slate, NPR, PBS as well as many newspapers, journals and online.

Abstract

The Slave Wrecks Project (SWP) is an international network of researchers and institutions hosted by the Smithsonian NMAAHC that searches for slave shipwrecks and takes a collaborative and international approach looking at sites, histories and legacies connected by their voyages.

SWP seeks to bring the immensity of that history to a human scale, voyage by voyage, through recovering the experiences and highlighting the humanity of those who were enslaved aboard the ships that plied the most horrific and extensive trade in people in world history. Through SWP’s efforts, previously submerged archeological remains and long-neglected histories are recovered, restored, remembered, protected, and shared.
SACP TECHNICAL PROGRAM

Lisa Jones, Ph.D.
Associate Professor, University of Maryland School of Pharmacy

"In-Cell Protein Footprinting Coupled with Mass Spectrometry for Structural Biology Across the Proteome"

Biography
Dr. Jones's research interests include the use of the protein footprinting method fast photochemical oxidation of proteins (FPOP) coupled with mass spectrometry for the characterization of the higher order structure of proteins. In particular, her lab has further developed the FPOP method for in-cell (IC-FPOP) studies for proteome-wide structural biology. Biological applications of IC-FPOP include characterizing protein folding intermediates directly in the cell and drug target (both on and off targets) determination. The Jones lab has also extended the method for in vivo analysis (IV-FPOP) in C. elegans. This provides the ability to study protein structure in an animal model for human disease.

Abstract
In recent years, protein footprinting coupled with mass spectrometry has been used to identify protein-protein interaction sites and regions of conformational change through modification of solvent accessible sites in proteins. The footprinting method, fast photochemical oxidation of proteins (FPOP), utilizes hydroxyl radicals to modify these solvent accessible sites. To date, FPOP has been used in vitro on relatively pure protein systems. We have further extended the FPOP method for in vivo analysis of proteins. This will allow for study of proteins in their native cellular environment and be especially useful for the study of membrane proteins which can be difficult to purify for in vitro studies. A major application of the in vivo method is for proteome-wide structural biology. In one such application, we used in-cell FPOP (IC-FPOP) to identify on and off targets of the anti-cancer drug methotrexate in leukemia cells. By obtaining structural information on proteins across the proteome, we were able to distinguish downstream structural changes that occur due to drug treatment. We have further extended the FPOP method for analysis in C. elegans, a member of the nematode family. This allows us to study protein structure directly in animal model for human disease. These methods have the potential to become a powerful tool in the structural biology toolbox.

MEETING RESERVATIONS: For both in-person and virtual reservations, please CLICK HERE by BY NO LATER THAN Friday, February 5, 2022. In-person entree choices include Crab Cake or Stuffed Portabella Mushroom. Please let us know if you have any dietary restrictions. Dinner will cost $10 ($5 for undergraduate students). Checks can be made payable to either SACP or SSP, depending on your membership. Please note the dinner policy included in your document links regarding cancellations.

PARKING: Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage, you will need to get a parking ticket and drive to upper floors. The Power Center can be accessed from the 8th Floor of the Forbes Garage. Bring your parking ticket to the dinner or meeting for a validation sticker. Please contact Duquesne University, if any difficulties should arise. If there is a special event, please note that you are there for an SSP or SACP meeting to get a parking ticket.

For any questions or problems, please contact Colleen, the Society Coordinator, at 412-825-3220 (Ext. 215).
Register for the ACS Spring National Meeting!

March 20-24 in San Diego and Virtual

The schedule is now available [here](#).
Click [here](#) for registration information.

---

Call for Abstracts!

The ACS Fall 2022 National Meeting will be held in Chicago from August 21-25. The deadline for abstracts is March 14. To see the list of symposia and to submit your abstract, click [here](#).

---

The Central Regional Meeting of the ACS (CERM) 2022 is being hosted by the Huron Valley Local Section and will take place June 7-10th, in Ypsilanti, MI on the campus of Eastern Michigan University. The deadline for submissions is March 7. To view the regional meeting website and to see the list of symposia, click [here](#).
Women Chemists Committee/Eli Lilly Travel Award

The Women Chemists Committee and Eli Lilly and Company sponsor this program to provide funding for undergraduate, graduate, and postdoctoral female chemists to travel to meetings to present the results of their research. Deadline is March 1 for travel during the second half of 2022. Click here for more information and to apply.

IUPAC Global Women's Breakfast

IUPAC has been organizing a Global Women’s Breakfast each year in conjunction with the UN Day of Women and Girls in Science. Members are encouraged to host their own local breakfast event and register the event with IUPAC here.

If you haven’t organized a local event at your institution or organization, you are encouraged to register and tune into the ACS Virtual Event by clicking here. On February 16, ACS will host a panel event from 10-11 AM EST but will also host networking sessions before and after.
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. The event was virtual, and we encourage virtual events during these uncertain times. If your institution is located in the Pittsburgh Local Section and you would like to host the 2022 ACS “On the Road” event, please contact ACS Chair, Kim Woznack (woznack@calu.edu).
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 (hluzwa@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

<table>
<thead>
<tr>
<th>Application Deadline</th>
<th>Travel Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1</td>
<td>June 30 (subsequent year)</td>
</tr>
<tr>
<td>June 1</td>
<td>December 31 (same year)</td>
</tr>
</tbody>
</table>

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 hjuzwa@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 hjuzwa@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@calu.edu

Secretary
Alysia Mandato
atm75@pitt.edu

Treasurer
Matthew Price
price@calu.edu

Volunteers Needed!

We recently updated our website and are looking for someone to help with maintenance. 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 February 2022 issue must be to the editor by January 25th, 2022.

Advertise in The Crucible

<table>
<thead>
<tr>
<th>Format</th>
<th>1X</th>
<th>3X</th>
<th>6X</th>
<th>10X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Page</td>
<td>$120</td>
<td>$115</td>
<td>$100</td>
<td>$75</td>
</tr>
<tr>
<td>Half Page</td>
<td>$75</td>
<td>$70</td>
<td>$60</td>
<td>$45</td>
</tr>
<tr>
<td>3.5” x 2”</td>
<td>$50</td>
<td>$45</td>
<td>$25</td>
<td>$20</td>
</tr>
</tbody>
</table>

ACS Member-Get-a-Member

Recruit a new member to the American Chemical Society and receive a free 2021 Periodic Table of the Elements blanket!

See here for more information

ACS Regional Awards – Apply Today!

More information can be found here