

the Catalyst



Official publication of the Philadelphia Section, ACS
<http://phillyacs.org>

March 2021
Volume 106, No. 3



HIGHLIGHTS

Comments From the Chair	29
News Atoms	32
Calls for Nominations	33-35
Chemical Consultants Network Meeting	37

James Murray Receives ACS Award

ADVANCE NOTICE

MAY MEETING
Tuesday, May 4, 2021
6:00 PM

Student Scholastic Achievement Awards and Teaching Award Ceremony

See the APRIL/MAY issues of *the Catalyst* for details,
call the Section Office at (267) 485-1792 or email PhilaACS@gmail.com.

the Catalyst

ACS Philadelphia Section

Founded April 15, 1899

STAFF

EDITOR-IN-CHIEF

Robin S. Davis

EDITORS

News Atoms: Alan Warren

Proof Editors: Anthony Addison

Georgia Arbuckle-Keil

Kendra Luther

Corrie Kuniyoshi

Marge Matthews

Alan Warren

ADVERTISING MANAGER

Victor Tortorelli

COMMUNICATIONS COMMITTEE

Chair: Lee Hoffman

Anthony W. Addison

Georgia Arbuckle-Keil

Matthew Bodek

Robin S. Davis

Alan Heldon

Corrie Kuniyoshi

Kendra Luther

Marge Matthews

Liliana Suárez

Victor Tortorelli

Alan Warren

CONTENTS

May Advance Notice.....	27
Comments From the Chair	29
News Atoms	32
Nominations Invited for Section Award	33
Call for Nominations in Pre-College Teaching	34
Call for Nominations in Undergraduate Teaching	35
Thank You to the Organizers of the February Meeting	36
ACS Career Consultants	36
March Board of Directors Meeting	36
Chemical Consultants Meeting	37
Directory of Services	38

Published monthly except July, August and December by the Philadelphia Section of the American Chemical Society. All views expressed are those of the editors and contributors and do not necessarily represent the official position of the Philadelphia Section of the American Chemical Society. Editorial matters should be sent to the attention of the Editor-in-Chief c/o the Philadelphia Section ACS, Department of Chemistry, University of Pennsylvania, 231 South 34th Street, Philadelphia, PA 19104-6323 or PhilaACS@gmail.com.

Advertising: Victor Tortorelli, vtortorelli@ursinus.edu

Comments From the Chair



I would like to congratulate Dr. James Murray of Immaculata and Chair of the Philadelphia Local Section in 2019 on the receipt of the Outreach Volunteer of the Year Award for his efforts in meeting the members of the Section and listening to how we can make the Section better. His award was presented by Joseph Martino, Immediate Past Chair of the Section during our February Section Meeting.

Our February Section Meeting was “Learning from STEM Outreach Leaders in our Section.” A special thanks goes out to Randara Pulukkody for coordinating the planning committee of Dave Hagan, Steven LaMonica, Dan Domin and Andreea Argintaru. Our speakers included: Daniel Domin (Raw Material Chemist at Quaker Houghton), Nan Odenthal (Project Director at Norristown Area School District), Roshawnda Washington (Volunteer Program Manager at Dow), and Neil Johnson (Director of US Chemistry Talent at GlaxoSmithKline). Steven LaMonica shared his personal perspectives on what STEM Outreach means to him and Thomas Umile (Chair of Education and Outreach) offered an overview of the Education and Outreach Committee. Thank you to all our speakers and participants for a great discussion after the speakers.

This month the committee being profiled is the Career Services Committee. Thank you to Jim Murray, Chair of the Career Services Committee for his overview:

We are a standing committee of the ACS Philadelphia Section and our purpose and focus is on the members of the Section who may be looking for a new position or for a change in career within the chemistry profession and we provide services to help them through this process. We are looking to really expand the focus to include the chemistry majors at all the regional colleges and universities and look to work with them earlier in their careers as chemists to try and help them determine what the best career path is for them at this moment in time.

In this capacity, the members of the Career Services Committee plan career-related events, help with résumé reviews and interview prep, and offer opportunities for individual conversations on next steps for member’s careers or transitions from school. If you are interested in a personal conversation, résumé review, or interview prep, please email PhilaACS@gmail.com with your interest and who you might be interested in speaking with. The members of the Career Services Committee’s bios are below. Additionally, if you are interested in joining Career Services as a volunteer, please reach out to PhilaACS@gmail.com and we can put you in touch with Jim Murray. Alternatively, you can email acsphillycareerservices@gmail.com. I also encourage you to visit our [website](#) for more information on career support and links to programs and services provided by ACS National.

Career Services Committee Bios:

James (Jim) Murray—Chair—Jim earned his BS, MS and PhD (Organic Chemistry) from Drexel University in 1996, 1997 and 2003, respectively. He has been a member of the faculty at Immaculata University since August 2001. He has spent 13 years as Department Head at Im-

maculata, served as Chair of Local Section in 2019 and Chair of Career Services since 2020. Jim has been an ACS Career consultant for a little over two years.

Andreea Argintaru earned her BS and MS in Chemistry from the University of Lyon. While at the University of Lyon, Andreea also worked as a Research Associate at Bayer CropScience. From here, Andreea performed her doctoral research work at the University of Pennsylvania under the supervision of Professor Virgil Percec. After completing her PhD, Andreea went to the Novartis Institutes for BioMedical Research, where she rose through the ranks performing research in oncology, ophthalmology and drug delivery. She then took a position at Axalta, where she is currently employed as Principal Scientist. Andreea is active locally on the ACS Philadelphia Section's Program Planning Committee and has more recently become an ACS Career Consultant.

Benjamin Blass earned his BS in Chemistry from Emory University and his PhD in Organic Chemistry from the University of Rochester under the direction of Professor Andrew S. Kende. From here, Ben accepted a position at Procter and Gamble Pharmaceuticals, where he worked on and led several programs focusing on different therapeutic areas as well as developed high-throughput methodology. From here, Ben went to Wyeth Research as Principal Research Scientist, leading scientific teams on several medicinal chemistry projects. After Wyeth was acquired by Pfizer, Ben worked at the Fox Chase Chemical Diversity Center. From here, Ben joined the faculty at the Temple University School of Pharmacy, where he is currently Assistant Professor of Medicinal Chemistry at the Moulder Center for Drug Discovery Research. Ben is also a registered US Patent Agent, owns his own patent firm and consults with a local patent law firm.

Catherine Bentzley earned her BS in Chemistry at St. Joseph's University, and her PhD in Chemistry from the University of Delaware under the direction of Professor Murray V. Johnston. From here, Catherine began her independent career at the University of the Sciences in Philadelphia, where she is currently Associate Professor of Chemistry. Catherine has been working with Lori Spangler, Dennis Murphy and Jim Murray in coordinating efforts between Career Services and USciences.

Kevin Cannon is currently a professor at Penn State Abington College and an assistant adjunct professor at Temple University. His research interests include both heterocyclic organic chemistry and the history of science. Kevin started his chemical career at age 15, working as a part-time laboratory technician at Leatex Chemical Company in Philadelphia. He earned a BA and PhD in Chemistry from Temple University and Princeton University respectively; he was a post-doctoral fellow at the University of Texas at Austin. Prior to becoming a full-time faculty member at Penn State in 2003, Kevin worked nearly 15 years as an industrial chemist at the Dow Chemical Company (Freeport, TX) and at Elf Atochem/Atofina/Arkema (King of Prussia, PA). Throughout most of his industrial career, Kevin taught chemistry as an adjunct at local colleges and universities, including Temple University, Chestnut Hill College and Philadelphia University.

Prof. [Michael J. Castaldi](#) graduated with a BA in Chemistry from St. Peter University, Jersey City, NJ, a MS in Science Education from Columbia University, and a DSc in Chemistry from

Hill University 2011. He retired from Pfizer Inc. in 2009 as a Senior Research Process and Medicinal Chemist. He has taught at Immaculata University, Jefferson University General Chemistry, St. Peters University, and Widener University. Michael is a member of Philadelphia ACS Board of Directors, the Chair of Senior Chemist Committee, Alternate Councilor (2016-present), and member of Awards Committee Philadelphia ACS (2012-present) in addition to serving on the Career Services Committee. He was an Executive Committee member MARM ACS Regional Meeting in 2016. Michael's hobbies include opera, piano golf, and history—especially scientific, European, and American history.

Linda Gerz earned her BS in Chemistry from Holy Family University. During her undergraduate studies, Linda interned with Sunoco Chemical in Philadelphia. Following her undergraduate work, Linda accepted employment with Atofina in King of Prussia, Pennsylvania (now Arkema). While at Arkema, Linda pursued her graduate studies at Villanova University, where she earned her MS in Chemistry. From Atofina, Linda served as an Adjunct Professor of Chemistry at Penn State Abington, and is now Assistant Professor of Chemistry at the Community College of Philadelphia.

Steve Fleming is a professor of instruction in the Department of Chemistry at Temple University (2008-present). He was a professor of chemistry at Brigham Young University (1986-2008) before coming to Philadelphia. He enjoyed serving as the Chair of the Philadelphia Local Section of the ACS in 2014 and learned much about the Philadelphia section as a Director prior to chairing the Section. He believes it is a privilege to serve as a Director of the Philadelphia Section and enjoys working on the Career Services Committee. He has mentored more than 100 undergraduate students and 12 graduate students. These students have taken various professional directions. He keeps close contact with most of his former students. He has learned vicariously from the experiences of those who have taken a route into the chemical industry. This feedback has helped him provide assistance to those looking for information about careers in the chemical profession.

Dennis Murphy is currently a Principal Investigator at GlaxoSmithKline in Mechanistic Biology. His work is focused on early drug discovery, primarily against enzyme targets. He utilizes enzymology and biophysics to dissect the mechanism of inhibition for lead-optimization. Dennis's undergraduate degree is from Bucknell University with a double major in Biology and Chemistry. He earned his PhD in Organic Chemistry at the University of Wisconsin and was a post-doctoral fellow at Penn State University. He began his industrial career in 1988 and has spent the majority of time in pharmaceutical research. He has also worked in biocatalysis and enzyme evolution, bioinformatics, nanomaterials, and adjunct teaching, all in the Philadelphia area - from Newark DE to Lansdale PA.

NEWS ATOMS—Alan Warren

Marisa C. Kozlowski, chemistry professor at Penn, was named editor-in-chief of the ACS's *Organic Letters*. The journal focuses on cutting-edge research and innovative ideas in organic chemistry. She was formerly an associate editor of the *Journal of Organic Chemistry*.

Yury Gogotsi, professor and founding director of Drexel University's Nanomaterial Institute, will receive the ACS award in the chemistry of materials.

DEATHS

Terry Edward Phillips, retired organic chemist, December 2, 2019 at 71. He was employed by the applied physics laboratory at Johns Hopkins for 38 years.

William F. Hoffman, retired organic chemist, December 25, 2019 at 81. He was a senior research fellow at Merck Sharp & Dohme for 43 years and developed their simvastatin drug. In retirement he judged many school science fairs.

Cyrus John Ohnmacht, Jr., medicinal chemist, February 12, 2020 at 80. Following employment with Eastman Kodak he worked with AstraZeneca where he was on the team that discovered the anti-psychotic drug Seroquel®. He authored over 50 technical publications and held over 40 patents.

Brian Ross Phillips, retired chemist, April 22nd at 84. Born and educated in England, he traveled to Canada and the United States where he was employed by DuPont in Wilmington.

James J. Gavigan, retired organic chemist, April 24th at 87. Following 3 years' service with Atlantic Richfield he was employed for 25 years by DuPont.

John F. Flood, retired chemist, August 18th at 82. He held several positions with Rohm and Haas, Sohio, BASF, and Prochimie International.

Thomas J. Ennis, Sr., retired research chemist, January 31, 2021 at 74. He worked for Rohm and Haas for over 30 years where he held several patents. In retirement he operated a rock and mineral shop and was proud of his collection of geodes.

John V. Fopeano, retired professor of biochemistry, February 8th at 93. He served on the biochemistry department faculty at the University of Buffalo's school of medicine 1954-1961. He retired as chairman of the department of medical technology of the State University at New York in Buffalo. He was also the retired director of the laboratories health care plan HMO at Buffalo. Fopeano was a fellow of the American Board of Clinical Chemistry and a 60-year member of ACS.

Kenneth Batzar, retired chemist, at 82. He was employed by DuPont where he held numerous patents in the field of fluoropolymers. After retiring he continued as a consultant and expert witness in the field. He was a 60-year member of ACS.

**CALL FOR NOMINATIONS
2021 ACS PHILADELPHIA SECTION AWARD**

Notice is hereby given that the ACS Philadelphia Section invites its members as well as Regional and Topical Groups to nominate candidates for the 2021 ACS Philadelphia Section Award.

This Award shall be presented “to one member of the Section, or in exceptional circumstances to two members of the Section jointly, who by conspicuous scientific achievement has made important contributions to the field of chemistry and thereby aided the public appreciate of the profession.” (ACS Philadelphia Section Bylaw X, §1.) Any member of the ACS Philadelphia Section may be nominated. Recent awardees include Donna M. Huryn (University of Pennsylvania), Anthony W. Addison (Drexel University), Marsha I. Lester (University of Pennsylvania), Michelle Francl (Bryn Mawr College) and Dr. Yuri Gogotsi (Drexel University).

INSTRUCTIONS FOR SUBMITTING NOMINATION

Nominators should provide a CV of the nominee showing education; employment and/or academic history; a list of publications, presentations and patents; and a record of other accomplishments pertinent to consideration for this award.

One or two seconding letters (at least one of which should be from a person in an organization other than that of the nominee) should be requested in support of the nomination.

Nominators and seconders should be identified with addresses, e-mail and telephone numbers so that they can be contacted, if necessary, for additional information.

Unsuccessful nominees from previous years may be renominated. In fairness to the nominee, however, renominations must be accompanied by an updating of the nominee’s biographical data and a list of accomplishments in order to make the nomination competitive. Unsuccessful nominees who have been considered three years in a row should not be renominated for the fourth year in succession without prior consultation by the nominator with the Chair of the Awards Committee.

Nomination forms are available from the Section Office at:

ACS Philadelphia Local Section
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323
(267) 485-1792; e-mail PhilaACS@gmail.com

The completed packet of nomination materials may be e-mailed to PhilaACS@gmail.com or mailed by **August 13, 2021** to the Chair of the Awards Committee at the Section Office address above.

**CALL FOR NOMINATIONS EXTENDED
2021 ACS PHILADELPHIA SECTION
AWARDS FOR EXCELLENCE IN PRE-COLLEGE TEACHING**

Notice is hereby given that the ACS Philadelphia Section invites its members to nominate candidates for the 2021 ACS Philadelphia Section Awards for Excellence in Pre-College Teaching.

The Awards honor two outstanding science teachers. One Award will be given to a full-time educator involved in teaching science in grades K-8. The second Award will be given to a full-time educator at the secondary level (grades 9-12) who teaches chemistry. Nominees must teach in the geographic territory of the ACS Philadelphia Section (Philadelphia, Bucks, Chester, Delaware and Montgomery counties in Pennsylvania, and Burlington and Camden counties in New Jersey).

PLEASE NOTE! Nominations for 2021 will be accepted until March 26, 2021.

INSTRUCTIONS FOR SUBMITTING NOMINATIONS

- 1) A **Nominator Recommendation** of not more than 750 words submitted by the nominator according to the guidelines outlined on the Recommendation Form.
- 2) A **current curriculum vitae or résumé** that includes a list of the nominee's honors, professional activities, and additional evidence of service to the profession. This must be limited to no more than two pages and the activities listed must have occurred within the past five years.
- 3) A **statement by the nominees** of not more than 500 words that describes the nominee's teaching philosophy or commitment to the profession.
- 4) **At least one, but not more than three, letters of support.** One letter, of no more than 400 words must be from the teacher's current principal or supervisor. Additional letters of support, of no more than 400 words, may be sent by colleagues, members of the ACS who are familiar with the nominee's achievements, or former students and parents of former students.
- 5) **The total nomination package should not exceed 30 pages.**

The nomination package may be e-mailed or sent to:

ACS Philadelphia Local Section
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323
(267) 485-1792; e-mail PhilaACS@gmail.com

The Award Recipient will be honored at our May 2021 Section meeting with a plaque and an honorarium.



**CALL FOR NOMINATIONS EXTENDED
2021 ACS PHILADELPHIA SECTION
AWARD FOR EXCELLENCE IN UNDERGRADUATE TEACHING
IN THE CHEMICAL SCIENCES**

Notice is hereby given that the ACS Philadelphia Section invites its members to nominate candidates for the 2021 ACS Philadelphia Section Award for Excellence in Undergraduate Teaching in the Chemical Sciences.

This award will honor an outstanding, full-time educator involved in teaching an undergraduate course in the chemical sciences (i.e.: chemistry, biochemistry). Nominees must teach in an institution that is within the geographical territory of the ACS Philadelphia Section (Philadelphia, Bucks, Chester, Delaware and Montgomery counties in Pennsylvania, and Burlington and Camden counties in New Jersey).

PLEASE NOTE! Nominations for 2021 will now be accepted until March 26, 2021.

Nominations should consist of the following:

- 1) **A letter of nomination.**
- 2) **The nominee's résumé.**
- 3) **Two letters of recommendation.**
- 4) **The total nomination package should not exceed 30 pages.**

The nomination package may be e-mailed or sent to the Chair of the Awards Committee at:

ACS Philadelphia Local Section
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323
(267) 485-1792; e-mail PhilaACS@gmail.com

The Award Recipient will be honored at our May 2021 Section meeting with a plaque and an honorarium.

Thank You



Randara Pulukkody



Andreea Argintaru



Dave Hagan



Steven LaMonica



Dan Domin

The Philadelphia Section would like to thank the people who organized the February Section Meeting.

ACS CAREER CONSULTANTS

Would you like to speak to a local ACS Career Consultant? The Philadelphia Section career consultants can provide one-on-one career advice, résumé reviews, or mock interviews. Please send an email request to acsphillycareerservices@gmail.com to set up an appointment.

728th ACS Philadelphia Section Board of Directors Meeting

Date: March 4, 2021

Time: 7:00 PM, by teleconference

Access Information:

By Internet:

Website: <https://american-chemical-society.zoom.com/j/87338823608?pwd=L2hGcE14QUtHVzNhMnhSbzJjbFJQU09>

Meeting Number: 873 3882 3608

Password: 460722

By Phone:

Phone Number: +1-646-558-8656

Meeting ID: 873 3882 3608

Password: 460722

Chemical Consultants Network ZOOM MEETING

MARCH 10, 2021

WHAT DO THE BEST CONSULTANTS DO TO GET CLIENTS?

Laura Burford

Business Advisor for Independent Consultants and Boutique Consulting Businesses

DATE & TIME: Wednesday, March 10, 2021 at 6:30 PM

[Click here to register](#)

Location: Online via Zoom! (registration required, see below)

Abstract: Consulting is a relationship business built on trust. Consultants build trust by focusing on displaying credibility and providing value to clients even before they become a client. Why? Clients want to know that not only can you, the consultant, do the work you say but you get the results they desire. The best clients look for partnerships with their consultants. But how do you display credibility and prove your value? How do you get clients?

This session will provide an overview of four organic steps aimed at helping consultants and contractors get clients. Walk away not only with an overview of the four steps but ideas to help you with lead generation and on-going nurturing. Members with specific questions they'd like to have addressed may contact Laura at Laura@lauraburford.com.

Biography: Laura Burford is a Business Advisor for Independent Consultants and Boutique Consulting Businesses. She leverages her thirty plus years of consulting experience and expertise by partnering with consultants helping them clarify their focus, get clients, and make money. Laura does it with the help of her Consultancy Model® and her Signature System, the Consulting Jumpstart Blueprint®.

In addition to be a business advisor, Laura is an author, speaker, and educator. For more on Laura, check out her educational website, Laura's Consulting Guide (<https://www.laurasconsultingguide.com>).

[Click here to register to attend the event.](#) This session is FREE.

CONSULTANTS - OPPORTUNITY HERE!

PLEASE VISIT <http://www.chemconsultants.org/>

Are You Getting the Benefits of CCN Membership or Event Participation?

THE CHEMICAL CONSULTANTS NETWORK PROVIDES VALUABLE TOOLS FOR MEMBERS BEYOND THE MEETINGS AND NETWORKING. CHECK OUT OUR:

- [Valuable past presentations](#) – [Consultants' Directory](#) – [Blogs](#) – [Resources](#)
- [Join!](#) Most valuable – post your consulting practice information – and have greater visibility!
- If you'd like to speak with one of our members, come to a CCN meeting

DIRECTORY OF SERVICES

CAREER DEVELOPMENT

Being a part of one of our teams can help you develop organizational and meeting skills as well as help you to network with people from the largest area companies. Public Relations, such as sending out meeting notices and press releases, can help you to develop a network and help you get noticed!

All committees are looking for new members and several are looking for "take charge" chairs. Some, like the Teller's Committee, involve minimal work—one night per year and pizza provided. Others, like positions on Communications or Social Committees, involve one or two hours per month.

Committee details can be found at:

www.membership.acs.org/p/philadelphia

or by calling the Philadelphia Section Office (215) 382-1589.

SURPRISE

our editor by calling and saying you appreciate the quality and content of our newsletter. Our editor works hard to maintain a publication of interest to our membership. Oh, and by the way you could also give credit to our advertisers who financially support us.

Custom Synthesis of Chemicals

Gram to Commercial Production
On-time Delivery, Quality & Competitive Price

Tyger Scientific Inc.

324 Stokes Ave. Ewing, NJ 08638

Phone: 888-329-8990

Email: sales@tygersci.com

Replacement MIST & ODOR elements for
EDWARDS VACUUM RV and EM vacuum pump
EMF & MF series Oil Mist Filters at the lowest prices

Contact: TRING ENTERPRISES LLC
FREE SHIPPING on website and phoned in orders
www.vacuumbandlowpressure.com
tringenterprises@hotmail.com

Office: 610-792-3505 Our 13th year in business
We stock other VP Mist & Oil elements – please ask

VOLUNTEER

Committees seeking team members

- ✓ Career Services
- ✓ Chemical Health & Safety
- ✓ Diversity
- ✓ Industrial Relations
- ✓ Legislative Liaison
- ✓ Liaison
- ✓ Membership
- ✓ Planning
- ✓ Public Relations
- ✓ Social
- ✓ Student Affiliate Mentor
- ✓ Awards
- ✓ Continuing Education
- ✓ Natnl Chemistry Week
- ✓ Program
- ✓ Publications
- ✓ Tellers
- ✓ Web Page
- ✓ Younger Chemists
- ✓ Women Chemists

contact the Section Office at
philaacs@aol.com or
215-382-1589.

Put "Volunteer" in the subject line or leave a message including contact information.



Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

SEM/EDXA • EPA/WDXA • XRD XRF • ESCA • AUGER • FTIR • DSC/TGA

Registered with FDA • DEA GMP/GLP Compliant

3815 Lancaster Pike Wilmington DE. 19805

E-Mail micronanalytical@compuserve.com

Voice 302-998-1184, Fax 302-998-1836

Web Page: www.micronanalytical.com

ADVERTISING INDEX

ACS	38
Micron Analytical Services	38
Robertson Microlit Labs	38
Tring Enterprises LLC	38
Tyger Scientific Inc.	38



Robertson Microlit
LABORATORIES

Where speed and accuracy are elemental

Elemental CHN, S, X analysis

Metals by ICP-OES, ICP-MS, USP<233>

FTIR, UV/VIS spectroscopy, Optical Rotation

GC-MS/FID, Residual Solvents, Headspace

Ion Chromatography

KF Aquametry, Titrimetry

DSC, TGA, melting point

HPLC

1705 US Highway 46 • Suite 1D • Ledgewood, NJ 07852 • 973.966.6668 • F 973.966.0136

www.robertson-microlit.com • results@robertson-microlit.com

Rapid Results • Quality • Accuracy • Competitive Pricing

Advertising: vtortorelli@ursinus.edu