

Official publication of the Philadelphia Section, ACS http://philadelphia.sites.acs.org

October 2018 Volume 103, No. 8



October Meeting Philadelphia Section Award Dr. Marsha I. Lester University of Pennsylvania

Exploring Uncharted Regions of Atmospheric Reaction Pathways

HIGHLIGHTS

Comments From the Chair	141	
News Atoms	142	
Speaker's Abstract and Biography	144	
ACS 2019 Nomination Slate 146		
21110	1.0	
Fall Council Report	149	
Calendar of		

ADVANCE NOTICE

NOVEMBER MEETING

Friday, November 16, 2018
Note: This is a Friday

Ullyot Public Affairs Lecture

Dr. Jennifer Doudna University of California, Berkeley

See the NOVEMBER issue of *the Catalyst* for details, call the Section Office at (215) 382-1589 or email PhilaACS@gmail.com.

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

Vince Gale

COMMUNICATIONS COMMITTEE

Chair: Liliana Suárez
Anthony W. Addison
Georgia Arbuckle-Keil
Matthew Bodek
Robin S. Davis
Vince Gale
Alan Heldon
Corrie Kuniyoshi
Kendra Luther
Marge Matthews
Victor Tortorelli

Alan Warren

CONTENTS

November Advance Notice	139
Comments From The Chair	141
News Atoms	142
October Meeting	143
Speaker's Abstract and Biography	144
Chemistry Safety Video Contest	145
ACS 2019 Nomination Slate	146
2018 NCW Poem Contest	147
Report from ACS Council, Fall 2018	149
Photo from ACS Council, Fall 2018	150
Board of Directors Teleconference Meeting	150
PAGES™ Mini Conferences for 6 th Grade Girls	151
Chemical Consultants Network Meeting	152
Directory of Services	153
2018 Calendar of Activities	154

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: Vince Gale, MBO Services, P.O. Box 1150, Marshfield, MA 02050,

email: cust-svc@mboservices.net.

Comments From the Chair



Lizzy Wagoner

Fall has officially arrived in Philadelphia, with leaves changing colors and the weather getting cooler. Even though the days have begun to shorten, we still have many exciting events left on the 2018 Philadelphia ACS Section calendar. On Tuesday, October 16th we will be presenting the Philadelphia Section Award to Dr. Marsha Lester, Edmund J. Kahn Distinguished Professor in the Department of Chemistry at the University of Pennsylvania. She will speak on *Exploring*

Uncharted Regions of Atmospheric Reaction Pathways. Also in October, we will be celebrating National Chemistry Week from October 21st to 27th. The theme this year is *Chemistry is Out of This World!* National Chemistry Week encourages ACS members and science enthusiasts to build awareness of chemistry at the local level. ACS local sections, schools, businesses, and individuals are invited to organize or participate in events in their communities with a common goal: to promote the value of chemistry in everyday life.

Our local National Chemistry Week coordinator is Dr. William Robert Smith, so please reach out to him at willsmith2@aol.com if you have any plans, ideas or questions.

On Friday, November 16th the Ullyot Lecture will be held at the Science History Institute. This year Dr. Jennifer Doudna, the internationally renowned professor of chemistry and molecular and cell biology at the University of California, Berkeley, will be speaking about her ground-breaking technology CRISPR-Cas9. This technology provides a simple way of editing the DNA of any organism using an RNA-guided protein found in bacteria. This event is an exciting opportunity to learn about cutting-edge science that will shape our future. I hope to see you there!

These amazing events and support programs are organized by the talented members of the Philadelphia Section ACS. Included in this edition of *the Catalyst* are the names of the candidates running for election to positions of Chair, Chair-elect, Councilors, and Directors of our local section. As a member of this section, I encourage you to vote! I also welcome you to help strengthen the impact of our section by volunteering. My door (aka email inbox) is always open to answer questions that you may have.

Kind regards,

Elizabeth Wagoner



NEWS ATOMS—*Alan Warren*

Megan Matthews, assistant professor of chemistry at Penn, was named a Scialog Fellow by the Research Corporation for Science and Advancement. Scialog supports early-career scientists who address globally significant challenges.

The Science History Institute elected **Richard J. Bolte, Jr.** as chairman of the board of directors. Bolte is chairman and CEO of BDP International. He joined the SHI board in 2010.

DEATHS

Walter T. Koch, research chemist, November 19, 2017 at 94. He worked 25 years for American Viscose (later FMC Corp.) where he obtained several patents. After retiring he became an antiques dealer.

Robert Karl Grasselli, research chemist, January 11, 2018 at 87. He worked at Sohio in the chemical catalysis group where he was named senior science fellow, retiring in 1985 after 25 years' service. For the next three years he was director of the chemistry division of the US Office of Naval Research and then joined the Mobil Research and Development Corporation, retiring in 1995. From 1996 to 2006 he was guest professor of physical chemistry at the University of Munich and simultaneously adjunct full professor in chemical engineering at the University of Delaware in Newark.

Grasselli obtained 160 patents in the field of acrylonitrile. He was inducted into the National Hall of Fame for Engineering, Science and Technology in 1988 and was elected to the National Academy of Engineering in 1995. He received the ACS E.V. Murphee award in 1984 and the E.N. Morley medal in 1999. In 1995 he was awarded the Alexander von Humboldt prize.

Leah Chandler Yocum, industrial chemist, July 27th at 90. She worked as a chemist for Hercules Corp. and then raised her children. Later she obtained her master's in library science and worked for Pennwalt as research librarian.

Richard Hugh Kolloff, analytical chemist, September 4th at 87. He worked for 30 years for Hewlett Packard/Agilent Technologies in the field of gas chromatography where he obtained three patents.



OCTOBER MEETING

THE PHILADELPHIA SECTION AWARD

Tuesday, October 16, 2018

Dr. Marsha I. Lester

Exploring Uncharted Regions of Atmospheric Reaction Pathways

University of Pennsylvania 231 S. 34th Street Philadelphia, PA 19104

5:15 PM – Registration and Reception in the Nobel Hall of Fame
6:00 PM – Dr. Marsha I. Lester, Philadelphia Section Award & Lecture in the Lynch
Lecture Hall
7:30 PM – Dinner

Cost per Member for dinner only is \$35 Cost per Student for dinner only is \$18 Attendance at reception and talk is no cost.

https://www.eventbrite.com/e/philadelphia-section-acs-october-event-tickets-49148878619

Register by contacting the Section Office PhilaACS@gmail.com (215)-898-6042



SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. Marsha I. Lester
Edmund J. Kahn Distinguished Professor
Department of Chemistry of the School of Arts and Sciences
University of Pennsylvania

Exploring Uncharted Regions of Atmospheric Reaction Pathways

Abstract: Alkene ozonolysis is a primary oxidation pathway for alkenes, the most abundant organic compounds in the Earth's troposphere after methane, and also an important source of atmospheric hydroxyl radicals (OH). Alkene ozonolysis takes place through a complicated reaction pathway with multiple intermediates and barriers on the way to OH products. A carbonyl oxide species, known as the Criegee intermediate (RR'COO), represents a critical branching point on the pathway that controls the products formed in this important class of reactions. In this laboratory, the simplest Criegee intermediate CH2OO and methyl-, dimethyl-, ethyl-, and vinyl-substituted Criegee intermediates are generated by alternative synthetic schemes. Recent studies have focused on characterizing the Criegee intermediates utilizing infrared and ultraviolet spectroscopic methods, and examining their unimolecular and bimolecular reactions under laboratory and atmospheric conditions. For example, infrared 'fingerprint' spectra of the Criegee intermediates are obtained, along with time-resolved studies of their unimolecular decay to OH radical products. Remarkably, the conformation and nature of the substituents (R, R') of the Criegee intermediate are found to have a profound effect on its subsequent chemistry in the atmosphere.

Biography: Dr. Marsha I. Lester has risen through the academic ranks at the University of Pennsylvania, where she is currently the Edmund J. Kahn Distinguished Professor in the Department of Chemistry of the School of Arts & Sciences. She completed a four-year term as Chair of the Department of Chemistry in 2009. Lester has received many honors and awards, including her election to Fellowship in the National Academy of Sciences and the American Academy of Arts & Sciences, the Garvan-Olin Medal of the American Chemical Society, the Bourke Lectureship of the Faraday Division of the Royal Society of Chemistry, a John Simon Guggenheim Memorial Foundation Fellowship, Fellow of the American Association for the Advancement of Science, the American Chemical Society, and the American Physical Society, an Alfred P. Sloan Research Fellowship, and the Dreyfus Teacher-Scholar Award.

Lester has been Editor of *The Journal of Chemical Physics*, the preeminent journal in her field, since 2008. In the past 10 years, she has reinvigorated the *Journal* with numerous initiatives to attract more of the best papers in the broadly defined field of chemical physics. Lester has consistently devoted a substantial amount of her time to scientific service activities. She has served on the NRC Commission on Physical Sciences, Mathematics, and Applications as well as its

Board on Chemical Sciences and Technology. She has been engaged in activities of the American Chemical Society, the American Physical Society, the National Science Foundation, and the Department of Energy. She is also a founding member and past Chair of the Penn Forum for Women Faculty.

Lester's research group has developed innovative methods for stabilizing 'entrance channel complexes' and reaction intermediates of environmental significance. Her group has employed novel spectroscopic methods to rigorously characterize these important, yet previously uncharted, regions of chemical reaction pathways.

Trenton ACS Chemistry Safety Video Contest

Trenton ACS members and friends, the time is here for an event which will give you a chance to express your creativity, network with your peers, share and enhance your knowledge of Chemical Safety, and win great \$\$ prizes!

The window for submission for Safety Video proposals will be open from September 15 to October 15, 2018. Once a team or individual submits a proposal, they will have the opportunity to interact with chemical safety experts from the ACS, create a great video, and participate in a fun awards ceremony at which outstanding videos will be recognized in multiple categories including "best picture."

The Trenton ACS invites members and friends of the ACS community to submit educational safety videos for the contest. Details and the submission form can be found on the Trenton ACS website (https://trenton.sites.acs.org/), News & Events. The submission form can also be found via this link to the Trenton ACS Video Safety Contest.

We look forward to your submissions, and if you have any questions please contact the current Trenton ACS Chair, Matt Crowe (matthew.crowe@ingredion.com)



ACS 2019 Nomination Slate

Chair/Chair-Elect

Lee Hoffman

Joeseph A. Martino

James K. Murray, Jr.

Treasurer

David J. Cichowicz

Director

Michael Brignone Lee W. Hoffman

Michael J. Castaldi Christine E. McInnis

Deborah H. Cook Thomas P. Umile

Ella L. Davis Michael Vogel

Steven A. Fleming

Lee W. Hoffman

Councilor

Anthony W. (Tony) Addison Kathryn A. Lysko

Michael J. Castaldi Joseph A. Martino, III

Anne S. DeMasi James K. Murray, Jr.

Rick Ewing Russell Phifer

Steven A. Fleming Thomas P. Umile

Alan R. Heldon Michael Vogel





2018 NCW Illustrated Poem Contest Chemistry is Out of This World

The Philadelphia Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten through 12th grade.

Contest Deadline: October 30th (email entries in pdf format / include entry form)

Prizes: \$50.00 for each grade category (K-2, 3-5, 6-8, and 9-12)

Contact: Dr. Bill Smith (willsmith2@aol.com) email for a digital entry form ASAP.

Winners of the Philadelphia Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the NCW theme, "Chemistry is Out of This World." Your poem must be **no more** than 40 words and in the following styles to be considered:

HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME - BLANK VERSE

Possible topics related to space chemistry include:

Light Stars Atmosphere Spectrum Planets Gases Supernova Ultraviolet

Entries will be judged based upon:

- Artistic Merit use of color, quality of drawing, design, and layout
- Poem Message fun, motivational, inspiring about yearly theme
- Originality Creativity unique, clever and/or creative design
- · Neatness free of spelling and grammatical errors

Contest rules:

- All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.
- Entries are judged based upon relevance to and incorporation
 of the NCW theme, word choice and imagery, colorful artwork,
 adherence to poem style, originality and creativity, and overall
 presentation.
- All entries must be original works without aid from others. Poems may be submitted by hand on an unlined sheet of paper not larger than 11" by 14" or scanned and sent via email. Illustrations may be created using crayons, watercolors, other types of paint, colored pencils, or markers. The illustration may also be electronically created by using a digital painting and drawing app on a computer, tablet, or mobile device.
- The text of the poem should be easy to read and may be typed before the hand-drawn or digital illustration is added, or the poem may be written on lined paper, which is cut out and pasted onto the unlined paper with the illustration.
- No clipart or unoriginal images can be used.
- Only one entry per student will be accepted; all entries must include an entry form. If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses, and entries for editorial, advertising, and publicity purposes







The Visible Difference

In Laboratory Science Expositions

Join thousands of chemists and scientists from around the world at Pittcon, the leading annual conference and exposition for laboratory science. This all-in-one event offers a high-caliber technical program, skill-building short courses and a dynamic marketplace of the latest scientific instrumentation and services. Start collaborating with individuals in a variety of scientific disciplines and find solutions to your greatest laboratory challenges at Pittcon 2019.

Pennsylvania Convention Center | Philadelphia, PA | March 17 - 21 | www.pittcon.org















REPORT FROM ACS COUNCIL, FALL 2018—A.W. Addison

Your Section Councilors convened with several hundred others on the morning of Wednesday August 22nd, in Boston (see photo on the next page).

The Boston ACS Meeting was quite well attended: there were 1,181 exhibitor personnel, 3,671 students and 8,294 other technical program registrants, with a grand total including other registrants of over 14,000. The member meeting registration fee for 2019 will be \$490, rather than the expected \$505. Membership of ACS has declined by ca. 10% over the last several years, but now appears to be holding steady at around 150,000. Our Section's membership has roughly paralleled this trend.

The Society's 2018 budget projection calls for a Net from Operations of \$31.8M - \$1.3M favorable vs. the previously approved budget. Total revenues are projected to be \$565.1M, 1.0% favorable to the budget. Increased total expenses will consume a good part, though not all of this.

Our Section colleague Ella Davis was elected (2019-2021) to the ACS Council Policy Committee.

Council voted to approve that International Chemical Sciences Chapters of the ACS be allowed to assess their members some local section dues, to support their programs. It was noted, that such international members pay full dues to ACS, but don't receive as many benefits in return as do domestic members; nor can their chapters be allotted any funds by the Society.

President Peter Dorhout introduced and led a special discussion on what role(s) ACS should play in preventing sexual harassment in the sciences. He highlighted several recent articles, workshops and studies that have called attention to the issue. Council members were polled with respect to some relevant questions, such as: "Have you ever witnessed or experienced sexual harassment at an ACS meeting or ACS event?;" 23% of those present responded in the affirmative. It was suggested that local sections institute appropriate policies.

Ballots for the national elections will be distributed in early October, with an October 31st voting deadline.

Contact info:

President Dorhout: P.Dorhout@acs.org

President-Elect Charpentier: B.Charpentier@acs.org

Anne DeMasi, Section Council Affairs Chair: Anne.DeMasi@lanxess.com

Tony Addison: <u>AddisonA@drexel.edu</u>



Philadelphia ACS Section Councilors at the August National Meeting in Boston L to R: J. Currano, M. Matthews, A. DeMasi, ACS President P. Dorhout, K. Shaginaw, A. Addison, C. McInnis.

Philadelphia Section of the American Chemical Society

Board of Directors Teleconference Meeting

Tuesday, October 23, 2018

5:00 - 7:00 PM

GoToMeeting: https://global.gotomeeting.com/join/187081973



You are invited to be a volunteer at

The Philadelphia Area Girls Enjoying Science™ Mini-Conferences for 6th Grade Girls

Help inspire girls' interest in science and mathematics.

When: Saturday, October 27, 2018

9:00 AM - 1:30 PM

Where: Chestnut Hill College

9601 Germantown Avenue Philadelphia, PA 19118

Volunteers are needed to bring an experiment to share with three small groups of girls (4 – 7 students each). Experiment leaders must have a bachelors' degree in a science. Students are encouraged to be part of the fun and help these experiment leaders.





As a result of new PA legislation, <u>all</u> <u>adult volunteers</u> having direct contact with children will need at least two criminal background checks. There is no cost for these checks if you are a long-time PA resident.



Register: Contact Dr. Kathy Thrush Shaginaw (kshaginaw@ccp.edu) and visit http://www.PAGESprogram.org.

This program is made possible through generous support from the Philadelphia Section of the American Chemical Society and its Women Chemists Committee (ACS WCC), the Philadelphia Chapter of the Association for Women in Science (AWIS), and the American Association of University Women (AAUW) Makefield Area Branch, PA, Inc., the Science History Institute, VWR Scientific, Fisher Scientific, Merck & Co, Inc., and the employers of the women scientists.













CHEMICAL CONSULTANTS NETWORK OCTOBER 10, 2018 MEETING

BUILDING STRATEGIC RELATIONSHIPS WITH OTHER CONSULTANTS

Charles Dormer - APEX STP, LLC

DATE & TIME: Wednesday, October 10th at The Cynwyd Club, Bala Cynwyd, PA Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM

Click here to register

Abstract: Consulting today and in the future requires that consultants are flexible in the business models they adopt; e.g., there may be engagements that require more resources than you have available or need skills and experience you do not have. These situations may require that you build a strategic relationship with other consultants to deliver those engagements. This session will examine these relationships to identify what can go well and not so well:

- What qualities do you look for and how do you identify the right partner?
- How do you ensure client acceptance of your project team?
- What are some of the pitfalls you might encounter and how to avoid them?

The discussion will focus not only on the trends but also on what consultants can do practically to meet the challenges of changing client needs. Please join us and share your knowledge, experience and views of the future from your client's point of view.

Biography: Charles brings over 35 years of experience in healthcare and pharmaceutical R&D. Charles' career transitioned to an executive coach/consultant based on his passion for helping leaders to maximize their productivity and success, develop leadership capabilities, and successfully manage change and uncertainty. Charles has Masters of Science and Philosophy degrees from the University of Pennsylvania and holds an Adjunct Lecturer position at Georgetown University Medical Center. He is also the Program Chair for the Institute of Management Consultants - USA, Philadelphia Chapter

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004. MAP DIRECTIONS

Reservation: Click here to register to attend the event, or e-mail CCNReservations@aol.com or call the CCN phone number at (267) 666-0949 and leave a message. Fee, including food and beverages, is \$30 by reservation/cancellation deadline: **Saturday, October 6**th.

<u>CONSULTANTS - OPPORTUNITY HERE!</u> 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 including methods and techniques on how to do consulting
- Consultants' Directory find consultants who can help you solve your problems & meet your needs
- <u>Blogs</u> did you know that chemists & chemical engineers can blog? Yes! On a broad range of subjects of value to all of us...
- Resources useful & helpful information and references
- 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 or call 267-666-0949.

DIRECTORY OF SERVICES

CAREER DEVELOPMENT

Being a part of one of our teams can help you develop organiza tional 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.

Comittee details can be found at:

www.membership.acs.org/p/philadelphia

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

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

SUBPBISE

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.

SEARCHING FOR THAT SPECIAL JOB?

There are many companies and organizations searching for chemical and biochemical personnel to fill important jobs in their organizations.

- Companies for laboratory and management positions
- Universities & Colleges for teaching positions and laboratory personnel
- Hospitals for technical and research personnel

There are several web sites that may help you search for these open positions.

- www.mboservices.net
- http://membership.acs.org/p/ philadelphia/jobs/



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



Robertson Microlit Laboratories

Where speed and accuracy are elemental

Elemental CHN, S, X, Analysis (same day service) Metals by ICP-OES, ICP-MS, A/A FTIR, UV/VIS Spectroscopy Ion Chromatography

GC-MS **Polarimetry** DSC, TGA, melting point KF Aquametry, Titrimetry

1705 U.S. Highway 46 * Suite 1D * Ledgewood, NJ 07852 * 973.966.6668 * F 973.966.0136 www.robertson-microlit.com • email: results@robertson-microlit.com

Rapid Results • Quality • Accuracy • Competitive Pricing

ADVERTISING INDEX

ACS	153
Micron Inc.	153
Pittcon	148
Robertson Microlit Labs	153
Tyger Scientific, Inc.	153

Advertising: Vince Gale, MBO Services, P.O. Box 1150, Marshfield, MA 02050; phone: (781) 837-0424

email: vincegale@mboservices.net



PHILADELPHIA SECTION, ACS CURRENT CALENDAR OF ACTIVITIES

Date and Time	Event	Location/Information	
Wednesday, October 3 6:00 PM – 9:00 PM	ACS Philadelphia Section & ACS-BIOT Mid-Atlantic Student Chapter present ACS Comprehensive Professional Devel- opment Evening	Villanova University Garey Hall, Room10A Villanova, PA 19085 See: https://www.eventbrite.com/e/an-interactive-career-workshoptickets-48049453208	
Monday, October 8 6:00 PM Social hour 7:00 PM Talk	Delaware Valley Mass Spectrometry Discussion Group: High Dimensional Molecular Phenomics in Systems, Synthetic, and Chemical Biology; John McLean – Vanderbilt University	Villanova University Mendel Hall, Room 213 800 Lancaster Avenue Villanova, PA 19085 See webpage for details: http://www.dvmsdg.org/	
Wednesday, October 10 5:30 PM Networking 6:30 PM Dinner 7:30 PM Talk & Business Session	Chemical Consultants Network Meeting: Building Strategic Relationships with other Consultants; Charles Dormer – APEX STP LLC	The Cynwyd Club 332 Trevor Lane Bala Cynwyd, PA 19004 Registration and additional information is available at http://www.chemconsultants.org/	
Thursday, October 11 11:30 AM – 2 PM	Joseph Priestley Society Meeting: <i>Pharmaceutical Applications of CRISPR Technology</i> ; Katrine S. Bosley – Editas Medicine, Inc.	Science History Institute 315 Chestnut Street Philadelphia, PA 19106 See webpage for details: http://bit.ly/2oxVrj7	
Tuesday, October 16 5:15 PM Registration and Reception 6:00 PM Lecture and Section Award 7:30 PM Dinner	Philadelphia Section Award, Dr. Marsha I. Lester: Exploring Uncharted Regions of Atmospheric Reaction Pathways	University of Pennsylvania 231 S. 34th Street Philadelphia, PA 19104 https://www.eventbrite.com/e/philadelphia-section-acs-october-event-tickets-49148878619	
Thursday, October 25 6:30 PM Social Hour 7:30 PM Seminar	Philadelphia Organic Chemists' Club Jamie McCabe – Merck Process Research and Development: Vignettes in Process Chemistry spanning Enabling Discovery Chemistry to Manufacturing Route De- velopment	Chemistry Department - University of Pennsylvania Carolyn Hoff Lynch Lecture Hall 34 th and Spruce Streets Philadelphia, PA http://www.pocclub.org/	
Thursday, October 25 8:30 AM - 6:00 PM	40 th Annual Princeton ACS Fall Organic Chemistry Symposium	Forsgate Country Club 375 Forsgate Drive Monroe Township, NJ 08831 http://www.pacsfocs.org/	
Thursday, November 8 11:30 AM – 2:30 PM	Joseph Priestley Society Symposium: Cost-Effective Green Chemical Solutions	Science History Institute 315 Chestnut Street Philadelphia, PA 19106 See webpage for details https://www.sciencehistory.org/event/joseph-priestley-society- 201811	
Friday, November 16 6:00 – 8:00 PM	2018 Ullyot Public Affairs Lecture: Dr. Jennifer A. Doudna: CRISPR Biology and Biotechnology: The Future of Genome Editing	Science History Institute 315 Chestnut Street Philadelphia, PA 19106 See webpage for details https://www.eventbrite.com/e/ullyot-lecture-jennifer-doudna-tickets-48708997924	
Please check the individual websites for additional updated information			
All content submissions are due on the 15th day of the month prior to publication			

Spring 2019 National Meeting in Orlando

https://www.acs.org/content/acs/en/meetings/national-meeting/abstract-submission.html?sc=home_4up_OR19_od