

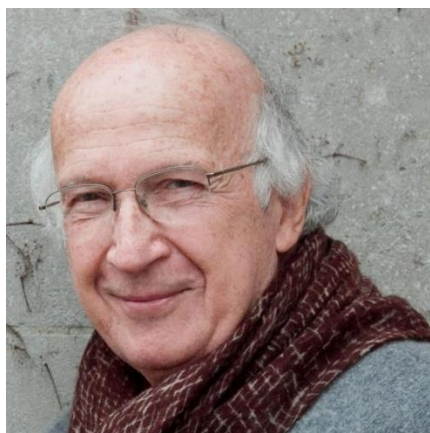
# the Catalyst



ACS Local Section  
Philadelphia

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

November 2019  
Volume 104, No. 9



**November Meeting**  
**Ulliot Public Affairs Lecture**  
**Dr. Roald Hoffmann**  
Cornell University

## HIGHLIGHTS

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## ADVANCE NOTICE

**JANUARY MEETING**  
**Wednesday, January 22, 2020**

**Note: This is a Wednesday**

**ACS Philadelphia Section Expo and YCC Poster Session**  
**6:00 – 9:00 PM**

Athletic/Recreation Building, University of the Sciences, 600 South 43<sup>rd</sup> Street, Philadelphia, PA

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

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## Comments From the Chair



Greetings to the members of the ACS Philadelphia Section! We are now into the fourth quarter of 2019 and the programming for this year is rapidly nearing its end.

As I mentioned in my October column, the Section completed its yearly election. My congratulations to those who were elected. My sincere thanks to all those who stepped forward and appeared on the election slate. It is through the volunteer spirit of our members that great things happen in the Section. The election results are listed in this issue of *the Catalyst*.

The October 17<sup>th</sup> meeting featured the presentation of the 57<sup>th</sup> ACS Philadelphia Section Award. This is the highest award that the Section bestows on one of its members. This year's recipient was Dr. Michelle Franci of Bryn Mawr College. On behalf of all the members of the Section, I would like to again extend a hearty congratulations to Michelle on a well-deserved award. Michelle gave a very interesting, and thought-provoking talk related to her theoretical work on Mobius systems. In addition, she presented on the use of certain terms by chemists and taking a deeper look at their meaning. If I may borrow from Michelle's talk, think about using the term "molar." As chemists do, we immediately think 1M HCl or are we talking about a tooth that needs to be extracted. After hearing Michelle's talk, I will be more careful in my use of the word topology. Do I really mean topology or topography?

The November meeting, on Thursday the 14<sup>th</sup>, will be the Ulliot Public Affairs Lecture. This year's speaker will be Nobel Laureate Professor Roald Hoffmann of Cornell University. I am sure this will be a well-attended event, so I encourage people to register early. Information regarding this event can be found on the Science History Institute website as well as the ACS Philadelphia website. As always, please spread the word and encourage friends, colleagues, and students to attend.

The business of the Section is still moving forward. There is one issue that will be coming before the membership of the Section in either 2020 or 2021 and more details will be forthcoming. I enjoy conducting outreach with the members of the Section and have greatly appreciated the input I have received. If you have any questions, comments, or thoughts, please feel free to reach out and contact me. I would be happy to talk to you.

Enjoy this very colorful time of year, that is brought to you through the wonders of chemistry!

## NEWS ATOMS—*Alan Warren*

Two chemistry professors at Penn will receive 2020 ACS awards at the spring meeting in Philadelphia. **Abraham Nitzan** will be honored with the award in theoretical chemistry, and **Dan Mindiola** will be recognized with the F. Albert Cotton award in synthetic inorganic chemistry.

### DEATHS

**Robert H. Wood**, chemistry professor, February 3, 2019 at 86. He taught chemistry at the University of Delaware for 45 years. Wood was recognized for his work in solution chemistry and calorimetry.

(Waldo) **Jerome Gates**, chemical engineer, August 27<sup>th</sup> at 95. Following service in WWII where he received the Purple Heart, he was employed at CertainTeed Corporation for 30 years.

**Edward James Sweeney**, retired chemist, September 24<sup>th</sup> at 90. He was employed by Rohm and Haas from 1953 until retirement in 1992.

**Kenneth M. McNeil**, emeritus associate professor of chemical engineering at Widener University, September 27<sup>th</sup> at 77. He was also a lecturer at Cambridgeshire College of Arts and Technology in England, assistant professor at Drexel University, and a project engineer at AMOCO Chemicals. His expertise was process research and development. He taught thermodynamics, mass-transfer, applied reaction kinetics, and catalysis. McNeil served two terms as faculty chair at Widener.

**Note:** News Atoms seeks to report new hires, significant promotions, honors and awards, and those who have recently passed away from the field of chemistry in the greater Philadelphia area. If you have a news item for this column, send it by email to [PhilaACS@gmail.com](mailto:PhilaACS@gmail.com) or by mail to the Philadelphia Section.

NOVEMBER MEETING

THE ULLYOT PUBLIC AFFAIRS LECTURE

Presentation by

**Dr. Roald Hoffmann**  
Cornell University

***The Same and Not the Same:  
The Many Faces of Diversity in Science and Society***

**Thursday, November 14, 2019**

Science History Institute  
315 Chestnut Street  
Philadelphia, PA 19106

6:00 PM Lecture  
7:00 – 8:00 PM Reception

The lecture is free to attend  
Reception cost: \$10

To register, please visit <https://www.eventbrite.com/e/roald-hoffmann-the-same-and-not-the-same-the-many-faces-of-diversity-in-science-and-society-tickets-69037632417>

Board of Directors Meeting  
Thursday, November 14, 2019 at 4:00 PM  
Room 201 of the Athletic/Recreation Building

# SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. Roald Hoffmann  
Cornell University

## ***The Same and Not the Same: The Many Faces of Diversity in Science and Society***

**Abstract:** Diversity as a concept has many meanings. For some it is the belief that diversity enriches both the natural world and our individual lives. At the same time, diversity has for some become a code word for something they feel uncomfortable with, a threat of unfair entitlement.

Join us for an evening with Nobel laureate Roald Hoffmann, where he examines the many aspects of diversity in chemistry, biology, and the social sciences. Hoffmann's lecture explores the value of diversity on both philosophical and social grounds, and what diversity means to our society.

**Biography:** Roald Hoffmann, a Nobel laureate, poet, and playwright, is a tireless advocate of the wonders of science and the beauty of chemistry. Born in 1937 in Złoczów, Poland, Hoffmann came to the United States in 1949 and studied chemistry at Columbia University. He earned his PhD from Harvard University in 1962. In 1965 Hoffmann began working at Cornell University, where he is the Frank H. T. Rhodes Professor of Humane Letters, Emeritus.

Hoffmann likes to characterize his contribution to chemistry as “applied theoretical chemistry,” his own blend of computations stimulated by experiment and coupled to the construction of generalized models, or frameworks for understanding. In 1965, in collaboration with Nobel laureate R. B. Woodward, he introduced the Woodward-Hoffmann rules, a method for exploring the electronic structure of transition states and intermediates in organic reactions. He received the Nobel Prize in Chemistry in 1981, jointly with Kenichi Fukui, for his theories concerning the course of chemical reactions.

Hoffmann has received the National Medal of Science and several awards from the American Chemical Society, including the Priestley Medal, the Arthur C. Cope Award in Organic Chemistry, and the Award in Inorganic Chemistry. He holds more than 25 honorary degrees and is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the American Philosophical Society, and several foreign academies. He has published more than 600 scientific articles.

As a writer, Hoffmann has carved out a land between science, poetry, and philosophy, through many essays, five nonfiction books, three plays, and five published collections of poetry, including bilingual Spanish-English and Russian-English editions. Hoffmann was also the presenter of a television series, *The World of Chemistry*, that aired on PBS and on stations worldwide.

## **2019 ACS Philadelphia Section Results**

2020 Chair-Elect

Christine E. McInnis

2020-2021 Secretary

Alan R. Heldon

2020-2022 Directors

Anne S. DeMasi

Amy L. Brown

Kathryn A. Lysko

Kathleen Thrush Shaginaw

Michael Castaldi

2020 Director

Michael Vogel

2020-2022 Councilors

Christine E. McInnis

Marge Matthews

Deborah H. Cook

2020-2022 Alternate Councilors

Judith N. Currano

Anthony W. Addison

James K. Murray, Jr.

## **Volunteering for 259<sup>th</sup> ACS National Meeting in Philadelphia, Spring 2020**

Philadelphia will be the site of the 259th ACS National Meeting in Spring 2020-- "*Macromolecular Chemistry: the Second Century*" (March 22 – March 26, 2020). The Local Section wants to show some Philly "LOVE" so that each attendee has a great experience.

We are seeking more volunteers. Examples of some open opportunities to serve:

- (a) coordinate items for give-away at the Host Section booth;
- (b) serve as liaison for the Committee on Community Activities to assist in a community outreach event on Saturday March 21, 2020;
- (c) coordinate staffing the host welcome booth at the Convention Center.

Please contact Sharon L. Haynie, Ph.D. ([SLHaynie55@gmail.com](mailto:SLHaynie55@gmail.com)) if you have questions or interested in volunteering.

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### **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, resume reviews, or mock interviews. Please send an email request to [acsphillycareerservices@gmail.com](mailto:acsphillycareerservices@gmail.com) to set up an appointment.*





You are invited to be a volunteer at .....

## ***The Philadelphia Area Girls Enjoying Science™ Mini-Conferences for 6<sup>th</sup> Grade Girls***

**Help inspire girls' interest in science and mathematics.**

**When:** Saturday, November 23, 2019

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.

The Chemists Celebrate Earth Week (CCEW) 2019 theme is "**Marvelous Metals**", focusing on the chemistry of metals. It would be great if you could share an experiment exploring this topic with the girls.



As a result of PA legislation, all adult volunteers 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.

**For more information and to Register:**

Contact Dr. Kathy Thrush Shaginaw

([kshaginaw@ccp.edu](mailto:kshaginaw@ccp.edu)), Dr. Ally Marianelli

([AMarianelli@dow.com](mailto:AMarianelli@dow.com)), 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.



**DELAWARE VALLEY ENZYMOLOGY CLUB /  
DE & PHILA. ACS ENZYMOLOGY TOPICAL GROUP**

Dear Colleagues, the next meeting of the Delaware Valley Enzymology Club will be on **Thursday, November 14<sup>th</sup>**, at **The Lamb Tavern/The Porch at the Lamb in Springfield, PA**. Our speaker will be Professor **Dr. Rahul M. Kohli** from University of Pennsylvania.

The title of his presentation is:

***Cytosine Modifying Enzymes and the Dynamic Genome***

**Abstract:** Chemical modifications to genomic DNA can expand and shape its coding potential, and dysregulation of these processes are prominent in cancers. The majority of nature's enzymatic toolbox for modifying the genome is centered on cytosine bases, with enzymatic deamination, methylation and oxidation all intersecting at cytosine bases. Although much is known about DNA methylation, the process by which methyl marks can be erased from the genome – DNA demethylation – has remained enigmatic. A major milestone came with the discovery of TET family enzymes, which catalyze the oxidation of 5-methylcytosine in the genome, and whose loss of function is prominent lesion in many hematologic malignancies. In this talk, we will discuss novel chemical and enzymatic tools that allow us to capture where and when TET enzymes are acting in the genome, providing new insights into the dynamic regulation of the epigenome in normal development and in cancers.

- Agenda: Social Hour 6:00-7:00 PM / Dinner 7:00-8:15 PM / Seminar 8:15-9:30 PM
- Cost for the dinner is \$35, students \$25. The seminar is of course free.
- The meeting will be at **The Lamb Tavern/The Porch at the Lamb (Springfield, PA)**

For reservations or further information, contact Yixuan Qiu preferably by e-mail at [dvenzymec@gmail.com](mailto:dvenzymec@gmail.com).

Dinner reservations must be made by Friday, November 8<sup>th</sup>.

Reservations not canceled by Monday, November 11<sup>th</sup> will be billed.

Address:

865 W. Springfield Road, Springfield, PA 19064

## CHEMICAL CONSULTANTS NETWORK

NOVEMBER 13, 2019 MEETING

### TOUR OF THE UNIVERSITY OF PENNSYLVANIA PENNOVATION CENTER

**Liora Knizhnik, Director Community and Campus Manager, Pennovation Center**

**DATE & TIME:** Wednesday, November 13<sup>th</sup> at 3401 Grays Ferry Ave., Philadelphia  
Tour: 3:30 PM

[Click here to register](#)

**Abstract:** The Pennovation Works is a distinctive blend of offices, labs, and production space developed by The University of Pennsylvania to link the intellectual and entrepreneurial initiatives necessary for advancing knowledge and generating economic development.

The Pennovation Works is anchored by the **Pennovation Center**, a business incubator and laboratory that aligns and integrates researchers, innovators, and entrepreneurs for the commercialization of research discoveries. Intended to marry entrepreneurs with an expert workforce and scientifically advanced facilities, key features of the Pennovation Center are the common creative spaces, including coworking areas, a cafe, and a venue for events and programs. This 58,000 square-foot facility is located adjacent to Penn's campus and the Health System complex.

The tour is a good opportunity to learn more about entrepreneurial activities at one of the Delaware Valley's leading centers for transitioning technology into businesses.

**Location:** The Pennovation Center, 3401 Grays Ferry Ave., Philadelphia. The parking lot has space for 10-12 cars only, please carpool or take other transportation.

[MAP](#) [PUBLIC TRANSPORTATION](#)

**Reservation:** [Click here to register to attend the event](#). There is no charge for this event, but you must register by noon Monday, November 11<sup>th</sup>, 2019. Registration will be capped at the first 30 registrants.



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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](http://www.membership.acs.org/p/philadelphia)

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

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PHILADELPHIA SECTION, ACS  
CURRENT CALENDAR OF ACTIVITIES

Date and Time	Event	Location/Information
Friday, November 1 <sup>st</sup> 8:30 AM – 6:00 PM	41 <sup>st</sup> Annual Princeton ACS Fall Organic Chemistry Symposium	Princeton University Princeton, NJ <a href="http://www.pacsfoes.org/">http://www.pacsfoes.org/</a>
Thursday, November 7 <sup>th</sup> 11:30 AM – 2:00 PM	Joseph Priestley Society Meeting: <i>Building the Future: Advances in 3-D Printing</i> by David Liu of Arkema & Kevin Turner of the University of Pennsylvania	Science History Institute 315 Chestnut Street Philadelphia, PA 19106 <a href="https://www.eventbrite.com/e/advances-in-3-d-printing-tickets-69205981955">https://www.eventbrite.com/e/advances-in-3-d-printing-tickets-69205981955</a>
Monday, November 11 <sup>th</sup> 6:00 PM Social Hour 7:30 PM Talk	Delaware Valley Mass Spectrometry Discussion Group: <i>Informing Cancer Treatment using Proteogenomics</i> by David Fenyo of NYU	Villanova University Mendel Hall, Room 154 Villanova, PA <a href="http://dvmsdg.org/">http://dvmsdg.org/</a>
<b>Thursday, November 14<sup>th</sup></b> <b>6:00 PM Lecture</b> <b>7:00 PM Reception</b>	<b>ACS Philadelphia Section Meeting, The Ullvot Public Affairs Lecture: <i>The Same and Not the Same: The Many Faces of Diversity in Science and Society</i> by Dr. Roald Hoffmann of Cornell University</b>	<b>Science History Institute</b> <b>315 Chestnut Street</b> <b>Philadelphia, PA 19106</b> <a href="https://www.sciencehistory.org/event/ullvot-public-affairs-lecture">https://www.sciencehistory.org/event/ullvot-public-affairs-lecture</a>
Monday, November 18 <sup>th</sup> to Wednesday, November 20 <sup>th</sup>	Eastern Analytical Symposium and Exhibition	Crowne Plaza Princeton - Conference Center 900 Scudders Mill Road Plainsboro Township, NJ 08536 <a href="http://easinc.org/wordpress/index.php">http://easinc.org/wordpress/index.php</a>
Thursday, November 21 <sup>st</sup> 6:30 PM Social Hour 7:30 PM lecture	Philadelphia Organic Chemists Club: <i>Developing Data-Driven Reaction Analysis Tools for Reaction Optimization and Interrogation</i> by Matthew S. Sigman (of the University of Utah)	Chemistry Department - University of Pennsylvania Carolyn Hoff Lynch Lecture Hall 34th and Spruce Streets Philadelphia, PA 19104 <a href="http://www.pocclub.org/">http://www.pocclub.org/</a>
Please check the individual websites for additional updated information		
All content submissions are due on the 15 <sup>th</sup> day of the month prior to publication		