

the Catalyst



ACS Local Section
Philadelphia

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September 2019
Volume 104, No. 7



September Meeting

**Dr. Carolyn Fisher, Senior Scientist, Decernis
And**

Nick Holmes

Licensed Massage Therapist, Phila Massages

HIGHLIGHTS

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ADVANCE NOTICE

OCTOBER MEETING

Thursday, October 17, 2019

THE ACS PHILADELPHIA SECTION AWARD

Michelle Francl, PhD
Bryn Mawr College

Main Dining Hall, Wyndham
Bryn Mawr, PA 19010

To register, please visit <https://acsphilly2019sectionaward.eventbrite.com>

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

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Advertising: Victor Tortorelli, vtortorelli@ursinus.edu

Comments From the Chair



Greetings to all the members of the ACS Philadelphia Local Section!

I hope that you have had a nice summer, with some much-needed time to relax and enjoy with family and friends. The summer season may be winding down, but the programming for the remainder of 2019 is in full swing.

Jim Murray

The Section tried something new this year; hosting an informal summer event. On August 14 we gathered at the Crossing Vineyards Winery in Newton, PA. This was a networking event to bring members together in an informal way to enjoy old friendships, foster new ones, enjoy good food, and good wine. The main event for the evening was an open-forum, town hall style presentation by Chair-Elect Joe Martino and me. Our purpose was to engage the membership in an open dialogue to get input directly from the people that the Section is working for and to provide some updates on forthcoming events for the Section. I would like to acknowledge the efforts of Ms. Isabella Goodenough. Isabella is a graduate student at Temple University and a member of the Philadelphia ACS Younger Chemists Committee (YCC). Isabella did an outstanding job in securing the venue, food, and winery tour for this event. It is reassuring to me to see members of our YCC taking the lead and getting involved in an “all hands-on deck” fashion to make a Section, however formal or informal, come to fruition. We are all trained chemists, and this was the first experiment. With data analysis and refinement, this could become a regular part of the Section’s yearly programming.

As we move into September there are several key events occurring in the Section. First, the Section’s yearly elections. My sincere thanks to Joe Martino and Mike Brignone for their efforts in putting together the election slate and to Jason Cross, Chair of the Tellers committee for overseeing the elections. The yearly elections are vitally important to the Section. I encourage all members to click the link and cast your votes. In addition to that, I ask that we all work together to spread the word about the elections to our friends, colleagues, and co-workers. Let’s strive to make this year’s turnout one of the best the Section has ever seen. There are over 4,000 members of Philadelphia ACS and we want those who are eligible to vote to exercise that right. A few minutes of effort can have a profound impact on the Section.

Our September Section meeting will be held at the University of the Sciences. This event was planned and organized by the Philadelphia ACS YCC. As chemists, we are all busy conducting experiments, analyzing data, reading the literature, and writing manuscripts. In our quest to do good science we can sometimes overlook taking care of ourselves. This event is meant to give some tips on healthy eating choices and ways to avoid the stresses on our bodies from extended times at the bench or desk. Look in *the Catalyst* for further details and the Eventbrite website to register.

The October meeting is the ACS Philadelphia Section Award; the highest scientific honor that the Section bestows. This year’s recipient is Professor Michelle Franci of Bryn Mawr College.

The event will be held at Bryn Mawr and I encourage you to attend and recognize Michelle for this great achievement.

Check out the Section's social media presence. My thanks to Lee Hoffman and the Communications Committee for getting the Section out on these platforms.

In closing I hope all of you get to enjoy the remainder of what the summer season has to offer. To my fellow members of the Section who are in the academic world, like myself, my best wishes for a successful 2019-2020 academic year!

NEWS ATOMS—*Alan Warren*

Daeyeon Lee, professor in the department of chemical and biomolecular engineering at the University of Pennsylvania, received the James M. Lee memorial award of the Korean Institute of Chemical Engineering.

Amish Patel, assistant professor in the same department at Penn, won the 2019 Van Ness award of the Rensselaer Polytechnic Institute.

Lauren Duhamel, a junior at Penn majoring in chemical and biomolecular engineering, received a scholarship from the Barry Goldwater Scholarship and Excellence in Education Foundation.

Amos B. Smith, III, professor of chemistry, was named inventor of the year by the Penn Center for Innovation.

Joseph Subotnik, chemistry professor at Penn, is a finalist for the 2019 Blavatnik National Award for young scientists.

Tiberiu Mihaila received a Fulbright award to conduct research at the Max Planck Institute for Biophysical Chemistry in Berlin.

DEATHS

Richard M. Weaver—no further details available.

Patrick Pierre McCurdy, chemical engineer and industry editor, March 1, 2018 at 89. In his publishing career he became editor-in-chief of *Chemical Week* and *Chemical & Engineering News*. In retirement he helped found the ACS journal *Today's Chemist*.

Beulah C. Wood, September 23, 2018 at age 100. No further details available.

Maurice "Mac" McDowell, physical chemist, November 18, 2018 at 95. Born in New Zealand, he studied chemistry there and in the United States and joined DuPont's Marshall Lab. During his 33-year career he had perfect attendance and worked on Lucite paints and polybutadiene linings for beer cans among other projects. He retired in 1983 and worked as a consultant and as a volunteer for the International Executive Service Corp.

Robert H. Wood, professor emeritus of chemistry and biochemistry at the University of Delaware, February 3, 2019 at 86. He joined the university as an instructor in 1957 and spent his entire academic career with UD, retiring in 2002. He chaired the chemistry department from 1969 to 1971.

D. Gene Wampler, research scientist, April 24th at 83. He was born in China where his parents served as missionaries. He taught briefly at the University of Connecticut's health center and then joined Merck, Sharp & Dohme working on vaccines. One of his projects was the transfer of Hepatitis B vaccine technology to China. He received the Merck management award in 1994.

Fouad Yosrey Shalaby, pharmaceutical research scientist, May 10th at 67. He was born in Egypt and educated there and in the United States. In 1995 he joined Bristol-Myers Squibb where he worked on drug discovery and development. In 2009 he returned to Cairo to join the Scientific Development & Biomedical Research Corp. as chief science officer and medical writer. In 2012 he came back to the United States as a consultant and science writer and also part-time chemistry professor at Bucks County Community College.

Louis Abdul Karman, chemical engineer, May 27th at 89. He spent his career with Hercules, Inc., retiring as vice president of operations.

Herman W. Levin, biochemist and inventor, May 28th at 89. In the 1970s he served as a scientist with Leeds & Northrup, and in the 1980s as a researcher with DuPont. He left DuPont and became a consultant conducting research, and licensing his inventions to other companies.

Kevin Wells-Knecht, chemical engineer, June 7th at 56. He was employed by Rhone-Poulenc as a research scientist in the analytical department and then moved to GlaxoWellcome where he worked on drug discovery in the fields of diabetes, oncology, and virology. Next he worked for Schering-Plough before joining Cephalon where he was engaged in oncology, neurology, and respiratory diseases. Wells-Knecht authored over 40 technical publications.

Richard N. Jacobson, chemical engineer, July 13th at 76. He worked at Occidental Petroleum and then joined Foote Mineral where he became an internationally recognized authority on lithium.

Maryellen Nerz-Stormes, chemistry educator, July 17th at 60. She joined Bryn Mawr College in 1988 as a laboratory instructor in organic chemistry. She received several awards including the Christian and Mary Lindback award for teaching, and the award for excellence in undergraduate teaching from the Philadelphia Section ACS.

Patricia M. Fitzgerald, chemist and librarian, July 26th at 85. She was employed as a chemist by Smith Kline & French and then spent 30 years as librarian in the Medford, NJ school system.

SEPTEMBER MEETING

THE PHILADELPHIA SECTION, AMERICAN CHEMICAL SOCIETY

presents

Dr. Carolyn Fisher
Senior Scientist, Decernis

Spices and Herbs: Chemistry and Health

and

Nick Holmes
Licensed Massage Therapist, Phila Massages

Maintaining a Healthy Desk Posture

Thursday, September 19, 2019
6:00 – 9:00 PM

University of the Sciences
Athletic and Recreation Building
600 South 43rd Street
Philadelphia, PA 19104

Registration: <https://acsphilly2019yccmeeting.eventbrite.com>

Or:

PhilaACS@gmail.com
(215)-382-1589

Board of Directors Meeting: 4:00 – 6:00 PM

SPEAKERS' ABSTRACTS AND BIOGRAPHIES

Dr. Carolyn Fisher

Senior Scientist, Decernis

Spices and Herbs: Chemistry and Health

Abstract: A general overview of the components of spices and herbs is presented, along with their attributes for the food industry. Rosemary, ginger, capsicum, and cinnamon, as well as others, are surveyed. Bioactivities of their components are discussed, with emphasis on antimicrobial, antioxidant, anti-carcinogenic and anti-diabetic activities.

Biography: Dr. Carolyn Fisher received her BS from Wayne State University (1972) and PhD from Stanford University (1978). Her career moved from Research (Kalsec, 1978-1991) to Teacher (University of Delaware, 1992-1996) to book author (*Flavours: Biology & Chemistry*). At McCormick & Co., Carolyn moved from Quality Assurance (1996-2005) to Regulatory (2005-2010) to managing the electronic storage of knowledge (2011). Currently, Carolyn is a Senior Scientist working on the global regulatory database that the food industry knows as gComply and gComply Plus. (Decernis, 2012–present). As an active IFT member, Carolyn recently finished her term on the Board of Directors (2015-2018).

Carolyn has had 6 careers: Research Chemist, Teacher, Book Author, QA Manager, Regulatory Manager and Senior Scientist bridging between customers and computer developers.

Nick Holmes

Licensed Massage Therapist, Phila Massages

Maintaining a Healthy Desk Posture

Abstract: Taught by Licensed Massage Therapist, Nicholas Holmes, will introduce and describe for you a typical desk slouch. Nicholas will help familiarize you with the factors involved in neck and back pain associated with prolonged periods of sitting. He will then teach you stretches, exercises, and tips to help maintain a more ideal posture. The goal of this workshop is to raise your own somatic awareness in order to help you counteract the less than ideal conditions placed on your posture in the workplace.

Biography: Nick began his career as a massage therapist in 2009, when he graduated from national massage therapy institute. After graduation, he continued his journey with NMTI, teaching the massage therapy program. In his five years as an instructor, he studied many different types of massage techniques, including myofascial release, sports massage, and active isolated stretching. Nick is an avid weightlifter, with experience competing in several different types of events. He is currently working on competing in a bodybuilding show and also plans on training for his first triathlon in the near future. His understanding of kinesiology and his experience as an athlete have helped shape him into a knowledgeable and skilled sports massage therapist.

HONORING OUR 50-YEAR MEMBERS

At our June Section meeting, we honored our 50-year members, presenting them with a certificate and luncheon at the William Penn Inn, Gwynedd, PA in recognition of their long and faithful service to the Society. Those being honored include the following:

MS. AUREA M. ALMAZAN

I recently retired from full time work as a data reviewer (auditor) in February 2019 at Lannett Co., Inc., a generic pharmaceutical manufacturing company in Philadelphia. After getting a BS in Chemistry from the University of the Philippines, I went to Lincoln, NE to obtain an MS and a PhD in Biochemistry. Prior to Lannett, I worked mainly in agriculture-related projects at the International Rice Research Institute in the Philippines, the International Institute of Tropical Agriculture in Ibadan, Nigeria and at Tuskegee University in Alabama. I was a UNESCO fellow at the Tokyo Institute of Technology in Tokyo, Japan for one year and also taught briefly at the University of the Philippines. Currently, I enjoy attending beginners drawing and watercolor painting classes at the Bensalem Seniors Center.

DR. ARTHUR SYLVAN BRILL

Dr. Brill was born in 1927 in Philadelphia, PA. After a brief stint in the US Army, he received a BA in Physics with highest honors from the University of California, Berkeley in 1949, and a PhD in Philosophy from the University of Pennsylvania in 1956.

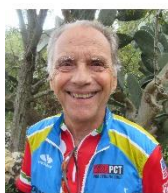
Dr. Brill's career is summarized as follows: postdoctoral fellow in medical physics at the University of Pennsylvania from 1956-1958; research associate, department of engineering physics, Cornell University, 1959-1960; assistant professor of biophysics, Yale University, 1964-1968; professor of materials science, University of Virginia, 1973-1997; program director of the interdisciplinary biophysics program, University of Virginia, 1989-1993; professor emeritus, research professor of physics, University of Virginia, since 1997.

Dr. Brill served as Associate Editor of *Biophysical Journal* from 1978-1981, and on the Publications Committee of the same journal from 1981-1984.

DR. MARCIA L. COLEMAN

Dr. Marcia L. Coleman received her AB in Chemistry from Mount Holyoke College and her PhD in Chemical Physics from MIT. She joined E.I. DuPont as a researcher in 1973 and held research, technical management, marketing, and planning positions throughout her career focusing on polymer research and development. She was the first woman Technology Director at DuPont. She became Technology Director for the Elastomers business in 1992 and retired in 2004 as Director of Leveraged Technologies in Central Research Dept. In retirement, Marcia has become an avid birdwatcher and also enjoys gardening, cooking, and spending time with her husband.

DR. WILLIAM H. ELFRING, JR.



What strikes me as I review my career is the variety of work I have done in science and how fortunate I am to have made a living doing something I enjoyed. When I graduated from Antioch College in 1965 with a BS in Chemistry, I had already worked as part of Antioch's work-study program as a lab tech at Scripps Institute of Oceanography analyzing air samples for carbon dioxide levels and at Chicago Medical School assisting in enzyme kinetics research. After graduation, I enrolled in the Peace Corps Brazil and served until 1967. There I taught science and helped with regional sanitary surveys.

Afterwards I enrolled at the University of Washington where I was awarded a NIH fellowship. In 1971 I graduated with a PhD in Inorganic Chemistry. Afterwards, I was a Post-Doctoral Fellow at Washington State University where I taught and did research on metal-organic complexes until 1974 when I was hired by Rohm and Haas. There I worked in coatings and construction products research until I retired in 2006. Until 2015 I continued to work as a USA Cycling official and currently, I am pursuing my interests in cycling, Italian and the Green New Deal.

DR. PHILIP FREIDENREICH



I graduated Rutgers College with a BA in Chemistry and was a Henry Rutgers Fellow working with Professor R.A. Moss. I earned my PhD in Organic Chemistry under Professor Ronald Breslow at Columbia University.

I spent my entire professional career working in the pharmaceutical industry. My first three positions were in diagnostics, in the areas of bench chemistry, technical writing, manufacturing and quality control. I then made the switch into pharmaceuticals, especially skin care. My responsibilities included quality assurance, regulatory, compliance, technical writing and project management. I am proud that I was a key team member in obtaining FDA approvals for three drugs: Oracea®, Mirvaso® and Epiduo® Forte.

My hobbies are bridge, gardening, genealogy and travel. I am also a board member of three non-profit organizations.

DR. ROGER FREIDINGER



Roger Freidinger grew up on a farm in Illinois. He received a BS in Chemistry at the University of Illinois and a PhD in Organic Chemistry under the direction of George Buchi at MIT. He was employed at the Merck Research Laboratories in West Point, PA from 1975-2005, where he was most recently Executive Director, Medicinal Chemistry. His research focused on the chemistry and medicinal chemistry of peptides, peptidomimetics, small molecule ligands for receptors, and enzyme inhibitors encompassing several therapeutic areas.

After retiring from Merck, he worked as a medicinal chemistry consultant. Honors have included the Vincent du Vigneaud Award of the American Peptide Society, Fellow of the American Association for the Advancement of Science, and the American Chemical Society Ralph Hirschmann Award in Peptide Chemistry. Dr. Freidinger was President of the American Peptide Society from 2003-2005. He served as a member of the NIH Bio-organic and Natural Products Chemistry Study Section, a NSF Graduate Research Fellowship Panel, and the Editorial Advisory Board of the *Journal of Organic Chemistry*. He and Carol, his wife of 50 years, have 2 daughters and 3 grandchildren. They enjoy traveling, attending concerts and plays, and gardening.

DR. ALLEN PHILIP MARKS



My interest in chemistry began in the fourth grade with a chemistry set as a birthday present. By high school (Stuyvesant HS in NYC), I was buying my own reagents and developing my own qualitative analysis schemes. I was very fortunate that I did not blow myself up at that young age! I received my BS at Brooklyn College (City University of New York) and attended the University of Illinois on an Atomic Energy Commission fellowship which resulted in an MS in Nuclear Engineering and a PhD in Physical Inorganic Chemistry under Dr. Russell Drago.

I joined Rohm and Haas Company in 1973 working on acrylate manufacturing processes. I spent 35 years with Rohm and Haas mostly in product development areas related to construction products such as caulks and sealants, cement additives and architectural coatings. These resulted in several patents and publications. I ended my career in exploratory technology working on environmentally friendly products and renewable resources.

Throughout my career, I had a strong interest in science education. I organized and participated for many years in Project LABS, a summer workshop program for K-12 grade teachers to develop lessons for STEM. I ran an Explorer Post to introduce careers in science to high school students. I was and currently still am on the Board of Trustees for Delaware Valley Science Fairs, Inc. I also have been an adjunct instructor at Chestnut Hill College and Bucks County Community College. After retiring in 2009 from Rohm and Haas, I have continued my teaching activities for these last 10 years.

Currently, I enjoy traveling, photography, teaching and spending time with my family, especially my three wonderful grandchildren.

DR. DAVID J. NEWMAN



Born in the Eastern suburbs of London UK in 1939, retired as Chief, Natural Products Branch (NPB) at the NCI/NIH in Frederick, MD in early January 2015 having spent almost 24 years with the branch, the last 10 as Chief. Originally trained as an analytical chemist, Associate, Royal Institute of Chemistry (by ex-

amination) 1960; MS (thesis) in Organic Chemistry (Liverpool) 1963; PhD in Microbial Chemistry (Sussex) 1968.

Before and between the “sojourns in academe,” I spent 8 years (technician to MS level) as an analytical, organic and organometallic chemist. Moved to the USA for a post-doc (Biochemistry UGA) 1968-1970. SK&F 1970-85 as a biological chemist working mainly on anti-infective agents. MSLS in Info. Sci. (Drexel) 1977. SK&F ceased microbiology-based antibiotic research in 1985 and after working in marine and microbial programs at various companies, joined the NPB in 1991. Chartered Chemist (CChem, FRSC), Chartered Biologist (CBiol, FRSB), ASP Fellow (2014). Many years as a member of scientific societies; RIC/RSC 62, RSB 51, ACS 50, ASM 50, SIM, 40, ASP 20+ (President 2012-2013). Author or coauthor of >210 publications and “counting!”, 21 patents (UK, WIPO, USA) mainly on microbial NPs. Director ACS Philadelphia Section in the early 1970s.

DR. MATTHEW J. O'BRIEN



Married Gale Joy in 1971 and we raised four children. Graduated from Niagara University in 1968 with a BS, Villanova University in 1975 with a MS in 1975 and a PhD in 1976. My PhD was under the direction of Professor Robert L. Grob and in Analytical Chemistry.

I began my professional career in the Merck Sharp and Dohme Research Laboratories as a bench chemist and progressed to a Regulatory Affairs position where I directed a group of 12 scientists in the preparation of Chemistry, Manufacturing and Control registration documents. Notable contributions included participation in product development and planning, establishment of specifications, management of the quality assurance of clinical supplies, filing and/or negotiating, in conjunction with other MSDRL team members, approval by Regulatory Agencies of Drug Applications for more than 100 new INDs/CSAs and more than 40 NDAs/MAAs. After almost 25 years I started a firm with other pharmaceutical scientists and then after it faltered I had a career as a consultant mostly with the Quantic Group. As a consultant I worked with major pharmaceutical companies in their registration and quality efforts.

Most recently I worked as a volunteer with the USCG in the USCG Auxilliary with the Safety Officer and with the Waterways Management Officer. Also conducted civilian vessel safety inspections and monitoring patrols on the Delaware River.

DR. STANLEY J. SCHMIDT



I joined the ACS as a college student at Bellarmine College in Louisville, KY. I believe that I have read just about every issue of *CE&N* since then except maybe when I spent two years in the army. It opened up a whole new world to me and especially helped me understand the drug industry in which I have worked for 45 years. I have also attended many lectures sponsored by Philly ACS. Here is my autobiographical

information.

I was born and raised on a dairy farm near Louisville, KY. I received my BS in Chemistry from Bellarmine College (now Bellarmine University). I then obtained my MS in Organic Chemistry from the University of Tennessee in Knoxville. While in a PhD program there in 1972, I was drafted into the army for two years. I spent one year working in St Louis in an Army lab testing samples from Scott Air Force Base hospital. I spent the second year in the Army in Korea (as a food inspector) where I toured a chemistry lab in Seoul. After the Army, I took a job with Smith Kline and French and took medicinal chemistry-related courses at Hahnemann Medical College and Temple University in the evening. In my 16.5 years at Smith Kline and French, I did chemical synthesis in various programs; Neomycin derivatives, betalactams, imidazole antifungals, sterols as antifungals. I joined Sterling Drug for 4 years working on Calpain inhibitors, and ICE (Interleukin-1 converting enzyme) inhibitors. After that I worked for Nycomed in Wayne making iodine-based contrast agents, for x-ray and technecium chelated peptides and radioactive iodine containing peptides both for tumor detection. I then moved back to GlaxoSmithKline and spent the last 20 years in the oncology medicinal chemistry department making KSP, CENP-E, Aurora, and PI3K Kinase inhibitors. I continued in many other oncology programs one of which I am still working in.

Hobbies: 20 years of Karate, 40 years of swimming, biking, gardening, traveling.

My wife, Elaine, and I have been married almost 40 years, have 4 grown children and 3 grandchildren.

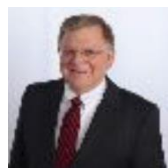
DR. WARREN L. SUNSHINE



I was born and raised in northern New Jersey. As a student, I developed an affinity to Organic Chemistry in high school and in university studies at both Columbia University in New York and Rutgers University in New Brunswick, receiving AB, MS, and PhD degrees. Following a two-year postdoctoral fellowship at University of Virginia, I accepted positions as a formulation scientist at American Cyanamid Company and Johnson & Johnson, spanning a period of 20 years.

More recently, I have moved into a Senior Manager role in Regulatory Affairs at Pfizer, Inc. in Collegeville, PA, where I continue to work part-time. I have been at Pfizer for 21 years, and I expect to retire soon.

DR. EUGENE J. TRYBULSKI



I graduated from St John Fisher with a BS in Chemistry and went on to earn a PhD at SUNY Buffalo in 1974. I then worked as an NIH Post-Doctoral Fellow at Harvard University under Professor E.J. Corey from 1973-1975.

Strong synthetic skills provided a foundation to build into a 35-year career in discovery medicinal chemistry from a Senior Scientist to Director of Medicinal Chemistry at Hoffmann-La Roche, Lederle Labs and then Wyeth Research. My industrial-research career fo-

cused on small molecule drug discovery in neuroscience, cardiovascular, inflammatory and women's health indications. My list of accomplishments includes 5 INDs and 11 pre-IND candidates. The science of this work has been reported in 53 publications, 74 granted US Patents and numerous presentations.

In 2010 with the Pfizer acquisition of Wyeth I retired to decompress and to pursue alternate interests. Married for forty-one years I have two sons, a daughter-in law and two granddaughters. A year-round life alternates between Washington Crossing, PA and Bolton Landing on Lake George, NY. Current interests focus on community, church and professional volunteering, kayaking, soil and water conservation and trying to keep my body healthy.

DR. E. PETER ZURBACH

Dr. Zurbach received his BS in 1970 and MS in 1972 in Chemistry from Saint Joseph's University and his PhD in 1982 in Physical Chemistry from Villanova University. In 1980, after 10 years of working in both worlds, industry and teaching, Dr. Z decided on a career in teaching at Saint Joseph's University.

Teaching in-depth courses primarily in the physical and analytical subdisciplines of chemistry, his greatest challenges and rewards have been with general chemistry, especially with the 8:00 AM sections. Opening the minds and imaginations of young future scientists over the years has fueled his passion and love for teaching. Teaching awards from both students (Molloy Chemical Society) and colleagues (Christian R. and Mary F. Lindback Foundation Award for Distinguished Teaching) give witness to the great teachers who passed on their knowledge and passion for learning to him.

Peter and his wife of 49 years, Mary, have three grown children and seven grandchildren. When not in the classroom or research lab, or spending time with their kids and grandkids, Peter and Mary can be found volunteering in their parish. Ordained a Permanent Deacon for the Archdiocese of Philadelphia in 1992, Deacon Peter and Mary enjoy ministering together as a married couple.

SECTION MEMBERS ALSO CELEBRATING 50 YEARS

Paritosh M. Chakrabarti, Michael M. Cone, Virginia L. Cunningham, Morris S. Cupp, Frederick A Golec, Jr., John D. Guerin, Edward J. Kikta, Frederick C. Klaessig, Joseph J.J. Liu, W. Vincent Lord Jr., Lawrence K. Low, John R. Meeks, Robert H. Sheffler, John P. Myers, Patrick F. O'Brien, Charles A. Plinton, William S. Pryor, John J. Taggart, Victor M. Thomas, Jr.

SECTION MEMBERS CELEBRATING 60 YEARS

John J. Baldwin, Kenneth Batzar, Richard A. Baxter, Sheldon W. Dean, Jr., Guy D. Diana, James L. Diebold, Ellis E. Faust, Marshall L. Fishman, S.A. Giddings, Janice T. Gordon, C.

Warren Graver, Dalia N. Jakas, Paul A. Kittle, Edward N. Kresge, Roger Lehrer, Marvin L. Lewbart, Sydney Libson, James E. Lyons, Vaidyanath Mahadevan, Elizabeth D. Matz, Victor E. Mello, Wilford Mendelson, Francis R. Pfeiffer, John A. Quinn, Frank T. Sanderson, Jules A. Shafer, Charles J. Shaw, A. Laird Slade, James S. Smith, Philip R. Sonnett, Reinhardt P. Stein, Earl R. Sullivan, Carl F.W. Wolf, Francis C. Zevnik.

SECTION MEMBERS CELEBRATING 70 YEARS

Richard G. Alexander, Kathryn S. Anderson, Scott J. Childress, Jack Dickstein, Harry Fishman, Richard S. Greeley, Peter Hosler, Edward M. Kohn, Maurice J. McDowell, Irving Moch, Jr., Howard Peterson, Louis G. Pobo, Joseph Weinstock.

FUNGAL COMPOUND DEODORIZES SKUNK SMELL

[“An Electrophilic Natural Product Provides a Safe and Robust Odor Neutralization Approach to Counteract Malodorous Organosulfur Metabolites Encountered in Skunk Spray”](#)
Journal of Natural Products

Being sprayed by a skunk is no fun for people or their pets, and the strong, stinky secretions can serve as a nasty reminder of the wildlife encounter for days or weeks. Available “de-skunking” formulas often either don’t work well or can irritate the skin and eyes. Now, researchers reporting in ACS’ *Journal of Natural Products* have identified a compound from fungi that safely and effectively neutralizes skunk spray odor.

When skunks feel threatened, they spray fluids from their anal glands that contain several nasty-smelling organosulfur compounds. The human nose can detect extremely low concentrations of these substances, making it difficult to completely rid clothing, hair, fur or skin of the stink. Various home and commercial remedies claim to neutralize skunk odor, but they often don’t work well or contain skin and eye irritants. Robert Cichewicz and colleagues wondered if a natural product they had previously identified from fungi, called pericosine A, could react with and neutralize odoriferous compounds in skunk spray.

To find out, the researchers mixed pericosine A with different organosulfur compounds from skunk spray and analyzed the products of the reactions. They discovered that the fungal compound reacted with two types of organosulfur compounds — thiols and thioesters — and converted them to stable, odorless products. Then, the team very slightly altered the structure of pericosine A and adjusted other ingredients in the reaction to produce a formula that would be safer and more effective for skin application than the original compound. Finally, the researchers used in vitro eye and skin tests to determine that the fungal compound was non-irritating.

**2019 ELECTION
ACS PHILADELPHIA SECTION**

The 2019 Philadelphia Local Section Election is approaching. The list of candidates running for each office and their biographies can be found at <https://PhillyACS.org/election/>. The list of candidates running for each office is given below:

Chair-Elect

Michael J. Castaldi
Christine E. McInnis

Secretary

Alan R. Heldon

Director

Amy L Brown
Kevin C. Cannon
Michael J. Castaldi
Anne S. DeMasi
Graham E. Doebereiner
James Gamrat
Lee W. Hoffman
Zeb Kramer
Brian Lawhorn
Kathryn A. Lysko
David Salas-de la Cruz
Kathleen Ann (Kathy) Thrush Shaginaw
Scott Van Bramer
Michael Vogel

Councilor

Anthony W. (Tony) Addison
Michael J. Castaldi
Deborah H. Cook
Judith N. Currano
Graham E. Doebereiner
Steven A. Fleming
Mark A. Forman
Lee W. Hoffman
Marge Matthews
Christine E. McInnis
James K. Murray, Jr.
Russell Phifer
David Salas-de la Cruz

2019 Excellence in Teaching Award Winners



Mrs. Amanda Coopersmith, Holy Ghost Preparatory School, ACS Philadelphia Section Award for Excellence in Pre-College Teaching.



Ms. Kelsey O'Donnell, Villanova University, ACS Philadelphia Section Salute to Excellence for her work in organizing the "Interactive Career Workshop" held on October 3, 2018 at Villanova University.



Dr. Roy Keyer, Temple University, ACS Philadelphia Section Award for Excellence in Undergraduate Teaching in the Chemical Sciences.

Meeting with ACS Executive Director and CEO Dr. Thomas M. Connelly, Jr.



ACS Philadelphia Section Chair Dr. Jim Murray and Chair-Elect Joe Martino along with Prof. Michael Castaldi (not in photo) met with ACS Executive Director and CEO Dr. Thomas M. Connelly, Jr., to discuss how the ACS Philadelphia Section can better help the ACS overall. Jim, Joe and Michael express their gratitude to Tom for taking time out of his busy schedule to talk with us for an hour about our great Local Section!

**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, September 12th**, at **Haverford College**. Our speaker will be Professor **Dr. A. James Link** from Princeton University.

The title of his presentation is:

Bending Peptides into Knots: A Unique Challenge in Enzymology

Abstract: My group has been focusing on lasso peptides, a unique class of natural products that belong to the RiPP (ribosomally synthesized and post-translationally modified peptides) superfamily. RiPPs start out as linear precursor proteins, synthesized at the ribosome. This is in contrast to non-ribosomal peptides (NRPs) which are assembled in an assembly-line fashion by bespoke biosynthetic machinery. Lasso peptides are defined by their knotted structure that resembles a threaded lasso or lariat. They exhibit a variety of bioactivities, including antimicrobial activity, receptor binding, and protease inhibition. After highlighting my group's efforts in genome mining for lasso peptide discovery, I will describe several examples of novel lasso peptides characterized by my group. In these examples, I will highlight the unique challenges encountered by the enzymes that convert linear peptide substrates into the lasso structure.

- 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, student \$25. The seminar is of course free.
- The meeting will be at **Stokes Hall Room 102 (Haverford College)**

For reservations or further information, contact Yixuan Qiu preferably by e-mail at dvenzymec@gmail.com.

Dinner reservations must be made by Friday, September 6th.

Reservations not canceled by Monday, September 9th will be billed.

*Faculty/Staff parking lot is open to visitors after 5 PM.

*Campus map is available at **(Stokes Hall is #1 on Campus Map):**

<https://www.haverford.edu/sites/default/files/Office/Reslife/Haverford-College-Campus-Map.pdf>

CHEMICAL CONSULTANTS NETWORK

SEPTEMBER 11, 2019 MEETING

MIXING-SENSITIVE REACTIONS – RECOGNIZING THEM AND DEALING WITH THEM

Aaron Sarafinas - Principal, Sarafinas Process & Mixing Consulting LLC

DATE & TIME: Wednesday, September 11th 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: Mixing intensity often drives rate processes that are critical to achieve important product properties. People say they need “good mixing” in their process, yet often scientists and engineers prefer to look at mixing as a “black box.” Unfortunately, that approach can lead to unpleasant surprises on scale-up, especially with multiphase and/or reactive systems.

In this talk I will share some systems from the literature and from my experience where the reaction selectivity is driven by the mixing intensity. We will look at a simple experimental protocol which can show when mixing matters and identify the critical mixing environment early in process development. We will also consider some examples where this protocol was applied to other competitive rate systems (like precipitation and crystallization) to enable successful scaling.

Biography: Aaron Sarafinas is a recognized expert in process development and mixing technology. He left Dow/Rohm and Haas after almost 36 years of being the bridge between the R&D lab and production units for many different business areas on a wide variety of processes. He formed Sarafinas Process & Mixing Consulting LLC in June 2018 so clients can achieve faster process development, scaling, and troubleshooting while leveraging advantaged mixing technology.

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004. [MAP DIRECTIONS](#)

Reservation: [Click here to register to attend the event](#). Fee, including dinner and non-alcoholic beverages, is \$30 by reservation/cancellation deadline: **Friday, Sept. 6th, 2019**.

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 to set up an appointment.

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.

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PHILADELPHIA SECTION, ACS CURRENT CALENDAR OF ACTIVITIES

Date and Time	Event	Location/Information
Wednesday, September 11 th 5:30 – 9:00 PM	Chemical Consultants Network Meeting: <i>Mixing Sensitive Reactions – Recognizing Them and Dealing with Them</i> by Aaron Sarafinas of Sarafinas Process & Mixing Consulting LLC.	The Cynwyd Club 332 Trevor Lane Bala Cynwyd, PA http://www.chemconsultants.org/event-3503651
Thursday, September 12 th 6:00 PM – 9:30 PM	DE & Phila. ACS Enzymology Topical Group Meeting: <i>Bending Peptides into Knots: A Unique Challenge in Enzymology</i> by A. James Link, Princeton University.	Haverford College Stokes Hall 370 Lancaster Ave. Haverford, PA 19041 Reservations: Contact Yixuan Qiu at dvenzymec@gmail.com
Thursday, September 19 th 11:30 AM – 2 PM	Joseph Priestly Society Meeting: <i>Photovoltaics: Past, Present and Future</i> by Vijay K. Kapur.	Science History Institute 315 Chestnut Street Philadelphia, PA 19106 https://www.eventbrite.com/e/photovoltaics-past-present-and-future-vijay-kapur-tickets-68295129571
Thursday, September 19 th 6 – 9 PM	Philadelphia ACS Section Meeting with Philly YCC: <i>Spices and Herbs: Chemistry and Health</i> by Dr. Carolyn Fisher of Decernis and <i>Maintaining a Healthy Desk Posture</i> by Nick Holmes, Licensed Massage Therapist, Phila Massages.	Athletic/Recreation Center University of the Sciences 600 South 43 rd Street Philadelphia, PA 19104 https://acsphilly2019vccmeeting.eventbrite.com
Please check the individual websites for additional updated information		
All content submissions are due on the 15 th day of the month prior to publication		