



# The Crucible



## Pittsburgh Section ACS Announces 2016 Pittsburgh Award and Distinguished Service Award Recipients

Congratulations to Dr. Neil Donahue recipient of the 2016 Pittsburgh Award and to the winners of the 2016 Distinguished Service Award, The Society for Analytical Chemists of Pittsburgh and The Spectroscopy Society of Pittsburgh.

The Pittsburgh Section will celebrate their achievements at an Awards Dinner on November 29. Details on time and location are available on [Page 8](#).

The Pittsburgh Section is proud to have such great members in our section and is looking forward to showing the region the great work they are doing.



### 2016 Pittsburgh Award Recipient – Dr. Neil Donahue

Neil M. Donahue is a Pittsburgh native who diverted through Ann Arbor for his middle and high-school years, scattered inelastically off of Providence with a degree in Physics from Brown University before entering an entangled state in Cambridge between MIT, where he received a PhD in Meteorology (Atmospheric Chemistry) under Ron Prinn and Harvard, where he conducted extended post-doctoral research as the director of kinetics research in the laboratory of Jim Anderson. He boomeranged back to Pittsburgh in 2000, joining Carnegie Mellon University

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### 2016 Distinguished Service Award Recipients The Society for Analytical Chemists of Pittsburgh (SACP) The Spectroscopy Society of Pittsburgh (SSP)

The Society for Analytical Chemists of Pittsburgh (SACP) and the Spectroscopy Society of Pittsburgh (SSP) are non-profit organizations dedicated to furthering science education in the Western Pennsylvania Region. With proceeds from Pittcon, the societies support a wide variety of educational programs, grants, scholarships and awards. By educating the children and community, a new generation is being prepared to meet the future.



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# 2017 Pittsburgh Section of the ACS Executive Board Elections

The 2016 Nominating Committee of the Pittsburgh Section of the American Chemical Society submits the following slate of candidates for Section office for 2017.

All persons nominated are members of the society and have agreed to serve if elected. Only members of the Pittsburgh Section of the American Chemical Society are eligible to vote.

Please note that all ballots must be received by November 14, 2016. Unless you receive a paper copy of *The Crucible*, and assuming you are a member in good standing, you will receive your ballot electronically via an email notification and code from [www.vote-now.com](http://www.vote-now.com). The polls will open on November 4<sup>th</sup> and close November 14<sup>th</sup> at Midnight EST. For ballot questions, please contact: Matthew Price, Secretary - ACS Pittsburgh Section, [price@calu.edu](mailto:price@calu.edu). For those receiving a printed copy, please follow instructions printed on the ballot. Ballots received in any other manner than what is stated in the instructions will not be accepted.

## Chair-Elect

*The Chair-elect is responsible for performing the duties of Chair when the Chair is unable to serve. The Chair-elect is also responsible for the Program Committee as well as the awarding of the Pittsburgh and Distinguished Service Awards. (Serves one year as Chair-elect and serves as Chair the following year.)*

### Kristi Kauffman

Kristi received a B.S. in chemistry from Frostburg State University in 2004 and a Ph.D. in Chemistry from the University of Pittsburgh in 2009 under the advisement of Dr. Stephen Weber. She was a postdoctoral fellow at the Department of Energy's

National Energy Technology Laboratory until 2011 before moving to an industrial role in PPG's Global Analytical Network. She held several roles in Analytical before moving to product development in PPG Packaging Coatings. Currently, she holds the position of Innovation Associate in PPG's Corporate Science & Technology group where she is focused on technology scouting and managing partnerships with universities.

Throughout her career, Kristi has demonstrated enthusiasm about the sciences and enjoys participating in STEM outreach programs. She has served as a judge and chair for the Pittsburgh Regional Science and Engineering Fair for the past ten years and has been a Grand Awards Judge for the International Science Fair. Kristi has been an active volunteer in the local ACS chapter including the Women's Chemist Committee and the Young Chemist's Committee. At PPG she participates in the Science Education Council, is an ambassador for the annual United Way campaign, and has organized technical symposiums and university outreach programs. Kristi is has also served as a docent at the Pittsburgh Zoo and PPG Aquarium where she promoted education about wildlife and conservation.

## Secretary-Elect

*The Secretary-elect is responsible for performing the duties of Secretary when the Secretary is unable to serve. The Secretary-elect is also to be available to assist the Secretary when necessary. (Serves one year as Secretary-elect and serves as secretary the following year.)*

### Mackenzie Speer

Mackenzie Speer was Chair of the Pittsburgh Section in 2015 and has been a member of the American Chemical Society for nearly ten years.

She is a Spectroscopy Sales Specialist with Metrohm USA and previously was the Quality and Analytics Manager at Reaxis, Inc.

Mackenzie received her B.S. in Chemistry at Gannon University and her M.S. in Analytical Chemistry under the advisement of Distinguished Professor Sanford Asher where she studied the use of UV Resonance Raman Spectroscopy as a tool for determining protein structure. During her time at The University of Pittsburgh, she served on executive boards for both Phi Lambda Upsilon and the Greater Pittsburgh Area Women Chemists Committee (WCC). She is currently serving as the Vice Chair of the WCC as well as sitting on their Outreach and Social committees. Mackenzie is a current member of the Society for Analytical Chemists of Pittsburgh and the Spectroscopy Society of Pittsburgh and serves on various committees for both societies including, but not limited to, the Bylaws, Membership and Directory, HS/MS Essays, and Tripartite committees. Mackenzie also serves as a member of the Conference Week Staff for the Pittsburgh Conference.

## Director

*The Director is responsible for attending all Executive Committee Meetings and act on all matters brought before the Executive Committee. (Serves a three year term.)*

### Monique L. (Shumaker) Hockman

Monique earned her B.S. in Chemistry from the University of Pittsburgh in 1987. She then received her PhD in chemistry in 1993 under the direction of Dr. David Waldeck also at the University of Pittsburgh.

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**BALLOT**  
For Offices of the  
**2017**  
Pittsburgh Section, American Chemical Society

**Chair-Elect**

Kristi Kauffmann

**Secretary -Elect**

Mackenzie Speer

**Director**

Monique L. (Shumaker) Hockman

**Councilor**

*(Vote for 2)*

Robert T. Mathers

Logan Miller

Kim Woznack

**INSTRUCTIONS**

Instructions are for Pittsburgh Members who receive a paper copy of The Crucible. Those receiving electronic copies will receive their ballot electronically via an email notification and code from [www.vote-now](http://www.vote-now). Ballot must be placed and sealed in the enclosed blank envelope. Do not write on the blank envelope. Place the blank envelope in an envelope addressed to Pittsburgh Section Secretary, Matthew Price, 198 Paphos St, Washington, PA 15301. **Print your return address in the upper left hand corner and sign your name under your return address. Ballots received in any other manner will be disqualified. Ballots must be received by November 14, 2016.**

## Celebration Dinner for 2015 and 2016 50 and 60 Year Members

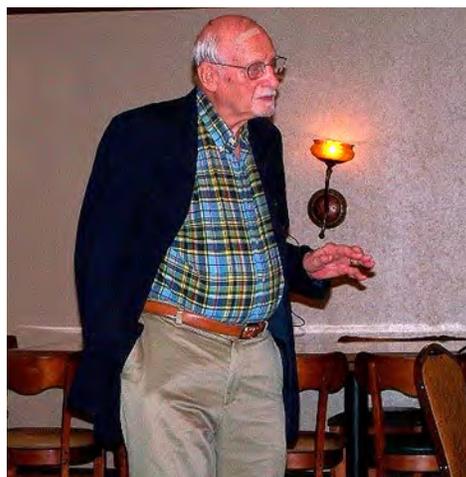
On September 22, the Pittsburgh Section ACS had a dinner to celebrate our 2015 and 2016 50 and 60 year ACS members. We were thrilled to host 4 undergraduate students at the meeting. There was very engaging communication about career trajectories, life lessons, and the society during the social hour and dinner. After dinner, the Chair of our local section, Dr. Evonne Baldauff, presented one 51-year member and four 50-year members with certificates for their service. We then had a brilliant presentation by a historian and Richard S. Caliguiri University Professor of History and Policy at Carnegie Mellon University, Joel A. Tarr, on the "Metabolism of the Industrial City: Air, Land and Water." Ironically, he, too was celebrating 50 years in Pittsburgh! He discussed the environmental impacts of Pittsburgh's industrial revolution. Our 50 and 60 year members clearly enjoyed the walk down memory lane, and it fostered post-presentation discussions regarding the future environmental impacts facing the region in light of advances in hydraulic fracturing for natural gas. We all thoroughly enjoyed a lovely evening!



From left to right: 2016 50 year members Dr. Richard Danchik, Denis Hassick, Dr. John Esposito, 2016 Chair Dr. Evonne Baldauff, and Dr. John Cramer



From left to right: 2015 50 year member Dr. Howard George McIlvried, II and 2016 Chair Dr. Evonne Baldauff



Speaker: Richard S. Caliguiri  
University Professor of History and  
Policy at Carnegie Mellon  
University, Joel A. Tarr



50 - 60 Year Member Celebration  
Dinner



## Society for Analytical Chemists of Pittsburgh



**November Meeting  
Monday, November 7, 2016  
Duquesne University**

**8:00 PM - Duquesne University**

*“Chemical Monitoring of Neurotransmission with Microelectrodes”*

**R. Mark Wightman, Ph.D.  
University of North Carolina at Chapel Hill**

**Abstract:** Neurons within the intact brain secrete chemical substances to communicate with neighboring cells. These substances, termed neurotransmitters, comprise an important way in which information is relayed and processed during behaviour. However, until recently, this chemical communication had not been characterized because chemical sensors suitable to monitor subsecond chemical events in micron dimensions were unavailable. We have employed cyclic voltammetry at carbon-fiber microelectrodes to examine the dynamics of neurotransmitter concentrations within the brain of rats. Measurements with subsecond time resolution within the intact brain give a real time view of neurotransmitters during goal-directed behaviours. These findings reveal an unanticipated spatial and temporal heterogeneity of dopamine transmission within the brain that encodes specific responses.

**Biography:** R. Mark Wightman joined the Department of Chemistry in 1989. He is also a faculty member in the Neurobiology Curriculum and the Neuroscience Center. He was an undergraduate at Erskine College, graduating in 1968. In graduate school at the University of North Carolina at Chapel Hill he studied under Royce Murray, receiving a Ph.D. degree in 1974 in analytical chemistry. From 1974 to 1976 he was a postdoctoral associate in the Department of Chemistry, University of Kansas with R. N. Adams. Prior to 1989, he was a Professor of Chemistry at Indiana University.

Professor Wightman has used the analytical chemistry approach to probe new areas in electrochemistry and neurochemistry, research that is described in more than 400 publications. In electrochemistry he explored new time domains and unusual solution conditions with ultramicroelectrodes. In neurochemistry, again using microelectrodes, he and his group have provided the first real-time view of neurotransmitter dynamics in various preparations ranging from single cultured cells to the brains of animals during behavior. At single cells and neurons, microelectrodes were used to measure and characterize single exocytotic events. He also has unraveled the complex electrochemical signals obtained from within the brain of awake, behaving rats to give an unprecedented view of dynamic chemical communication in the brain reward system. These studies have uncovered the previously unrecognized, subsecond signaling by dopamine, norepinephrine, and serotonin that accompanies seeking of both natural- and drug-based rewards. Awards recognizing these accomplishments include the Pittsburgh Analytical Chemistry Award (1997), the Faraday Medal, Electrochemistry Group, Royal Society of Chemistry (2005), R. N. Adams Award in Bioanalytical Chemistry, Pittsburgh Conference (2006), the ACS Analytical Chemistry Award (2008), and the Sir Bernard Katz Award for Excellence in Research on Exocytosis and Endocytosis, Biophysical Society (2010).

**Dinner Reservations:** Please email the SACP Administrative Assistant, Valarie Daugherty at [daugherty@pittcon.org](mailto:daugherty@pittcon.org) by Monday, November 1, 2016 to make dinner reservations. Should you not have email, please call 412-825-3220, ext 204. Dinner will cost \$10 (\$5 for students) and checks are to be made out to the SACP. If you have any dietary restrictions, please let Valarie know when you leave message.

**Parking:** Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage, you will need to get a parking ticket and drive to upper floors. Bring your parking ticket to the dinner or meeting for a validation sticker. Please contact Duquesne University, if any difficulties should arise.

## **Pittsburgh Section ACS Energy Technology Group**

**Wednesday, November 9, 2016**

### ***“Unconventional Natural Gas Development in Pennsylvania – Health, Environment and Safety Perspective”***

**Doug Mehan, Director of HES  
PennEnergy Resources, LLC.**

**Social Hour 5:30 PM, Dinner 6:30 PM, Talk 7:30 PM**

**Old Town Buffet  
860 Sawmill Run Rd. Pittsburgh, PA. 15226  
*Just south of the south end of the Liberty Tunnel***

According to the Pennsylvania Department of Environmental Protection, there are over 9,000 unconventional natural gas wells that have been drilled in Pennsylvania, mostly in the past 5 years. While the industry and state regulations have been able to adjust given the dynamics of this rapid development, there appears to be widespread anxiety and a general lack of understanding by the public regarding the controls maintained by regulators and drillers in this sector, primarily with the purpose in mind to protect human health and to mitigate possible environmental impacts. This photographic presentation will outline and focus on, in a step-by-step fashion, the sequencing of operations necessary for the safe development and extraction of natural gas and liquids from shales in Western Pennsylvania.

Doug Mehan is a Certified Safety Professional and Pennsylvania Professional Geologist with 30 years experience in Geology, and the Health, Safety, and Environmental field. During his professional career, he has worked throughout the United States and overseas in the oil and gas industry, environmental consulting, water resources and manufacturing industries. He chairs the Marcellus Shale Coalition's (MSC) Health & Safety Committee, is a past chairman of the Pennsylvania Independent Oil & Gas Association (PIOGA) Safety Committee and has served on municipal and environmental boards in northwestern Pennsylvania for the past 15 years. He has been an invited speaker on natural gas operations including the hydraulic fracturing process, fluids management and chemistry, and safety & emergency response at various industry-related and public venues. Mr. Mehan is currently the Director of HES for the natural gas producer, PennEnergy Resources LLC, where he is tasked with regulatory compliance and the development of the company's safety and environmental initiatives in the northern Appalachian Basin.

***Please make a reservation by contacting Elliott Bergman at [elliott.acstechnology@gmail.com](mailto:elliott.acstechnology@gmail.com) by 5:00 P.M. on Nov.7, 2016.***

***This will allow us to arrange for an appropriately sized meeting room. Walk-Ins are still welcome. Our meetings are open to all. Menu includes the All You Can Eat Buffet at a cost of \$20 per person. Wine can be ordered as an extra directly thru the wait staff.***



# The Spectroscopy Society of Pittsburgh



## November Meeting Wednesday, November 16, 2016, Duquesne University

- 5:30 PM Technology Forum Speaker's Presentation, Power Center Ballroom Section C  
5:30 PM Social Hour – Power Center Fides Shepperson Suite  
6:45 PM Dinner – Power Center Ballroom Section C  
8:00 PM Business Meeting – Power Center Ballroom Section C  
8:15 PM Technical Program Speaker's Presentation – Power Center Ballroom Section C

### TECHNOLOGY FORUM

#### **“If The Distillery Fails, We'll Have Everything We Need to Start a Liberal Arts College”**

**Meredith Grelli**  
Co-Founder of Wigle Whiskey Distillery

Wigle Whiskey Distillery owner and founder Meredith Meyer Grelli will tell her story of growing a profitable, bricks and mortar manufacturing company in the age of venture capital-backed apps. She will discuss Wigle's innovative approach to the marketing, regulatory and distribution frameworks of the spirits industry and the distillery's efforts to bring Rye Whiskey back to Western Pennsylvania, the birthplace of American Whiskey.

*Biography on Page 11*

### TECHNICAL PROGRAM - 8:15 PM

#### **“Infrared Chemical Imaging: From Theory to Therapy”**

**Professor Rohit Bhargava**  
University of Illinois at Urbana-Champaign

A new paradigm in biomedical imaging is emerging in which the intrinsic chemical content of tissue is used to provide contrast in images. The approach utilizes spectroscopic methods to record the chemical information and computational methods to visualize the information. While knowledge extraction from chemical imaging is very powerful in that a single recording of data from unperturbed samples can be related to a variety of pathophysiological states, the process of knowledge extraction and quantification of confidence in information is not straightforward. The constituent instrumentation, numerical methods, samples and statistics all play inter-related roles in the quality of information obtained. Here, we first present a case study of rapid analysis of breast biopsies, in which the role of sample and data quality is elucidated. We describe next strategies to ensure quality control over extracted information and provide examples of the use of numerical methods for the same. This requires an understanding of the image formation process from first principles. Finally, a synergistic control over quality of instrumentation, data and information extraction is shown to improve analyses that can impact prostate cancer care. Throughout, we describe challenges and potential solutions that have arisen, demonstrating how a combination of various disciplines leads to practical and innovative solutions.

*Biography on Page 11*

**Dinner Reservations:** Please register on-line at <http://www.ssp-pgh.org>, **Monthly Meetings**, to make dinner reservations **NO LATER THAN Friday November 10, 2016 @ noon**. Dinner will cost \$10 (\$5 for students) and checks must be made payable to the SSP. If you have any dietary restrictions, please indicate them when you RSVP. **Parking Instructions:** The Duquesne University Parking Garage is located on Forbes Avenue. Upon entering the garage, receive parking ticket and drive to upper floors. Pick up a parking chit at the registration desk upon entering the Power Center.



AMERICAN CHEMICAL SOCIETY  
PITTSBURGH SECTION  
AWARD BANQUET

*Honoring*  
2016 PITTSBURGH AWARD RECIPIENT  
**Professor Neil M. Donahue**

2016 DISTINGUISHED SERVICE AWARD WINNER  
**SACP and SSP**

TUESDAY, NOVEMBER 29, 2016

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Grand Concourse  
100 West Station Square Dr.  
Pittsburgh, PA 15219

Social Hour: 6:30 Cash Bar  
Dinner: 7:00  
Award Presentation: 8:00

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**DINNER REGISTRATION**

Registration must be submitted by Monday, November 21, 2016: \$44.00; Student or Post-Doc \$25.00

Parking is not included in the cost but is available in lots adjacent to Station Square or through valet at the Grand Concourse.

*To officially register for the event, payment must be received.* Please make checks payable to **ACS Pittsburgh Section** and mail to David H. Waldeck, Room G-10, 219 Parkman Avenue, Pittsburgh, PA 15213. Include the following information along with your check:

**NAME** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_ **STATE** \_\_\_\_\_ **ZIP** \_\_\_\_\_

**EMAIL** \_\_\_\_\_

**AFFILIATION** \_\_\_\_\_

**MEAL CHOICE (Please choose one):**

SIRLOIN STEAK WITH WARM BLUE CHEESE BUTTER

SALMON ROCKEFELLER WITH SPINACH, CRAB MEAT, BACON, BÉARNAISE

VEGETARIAN (TO BE ANNOUNCED)

## **Director Bio**

### **Monique L. (Shumaker) Hockman**

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Dr. Hockman was trained as a physical/analytical chemist whose research involved examining electron transfer at the solid/liquid interface. At Carlow University where Monique has been teaching for the past 24 years, she has been researching different methods of teaching chemistry. Her latest project involves the development and implementation of Reusable Learning Modules (RLM) containing reusable learning objects (RLOs) such as videos of example problems, videos of demonstrations, and narrated power points along with built in assessment for all the topics covered in General Chemistry I and II. She uses these modules in her course which is set up as a Flipped Mastery Class. Students will be able to either access these materials remotely or in the new STEM Digital Learning Lab at Carlow. In the past Monique had successfully developed and implemented a new general chemistry curriculum that fully integrated lecture and laboratory in her general chemistry classes (a studio model). This new curriculum consisted of two 300-page review manuals which outline more than 150 hands-on activities that are designed to help students understand the more difficult theory presented in lecture. She is the recipient of Carlow's Presidential Award for Teaching Excellence.

#### **Councilor (vote for 2)**

*As a Councilor, you have a vital role in ACS governance. You act on issues of importance to all chemical scientists. As the elected representative of your local section or division, it is your duty to represent your constituency. It is also your duty to report back to your constituency all important actions and votes taken by the Council. (Serves a three year term.)*

#### **Robert T. Mathers**

Robert T. Mathers graduated from North Carolina State University with a BS in chemistry in 1996. He worked for a year in industry as a chemist before entering graduate school. After obtaining a PhD in Polymer Science at The University of Akron in 2002, he spent two years as a postdoctoral researcher at Cornell University in the Department of Chemistry and Chemical Biology. Currently, Rob is a Professor of Chemistry at The Pennsylvania State University in New Kensington. His research interests include green chemistry, sustainable materials, and hydrophobic polymers. Over the last ten years, he has regularly attended and presented at ACS National meetings. Rob has been glad to serve the Pittsburgh ACS section as secretary (2008 and 2010), alternate councilor (2011-2013), and councilor (2013-2016).

#### **Logan Miller**

Logan Miller received his B.S. in Chemistry with an emphasis in biochemistry and forensic chemistry from Slippery Rock University of Pennsylvania (SRU). While at SRU Logan was involved in a multi-year, independent research project involving intracellular protein analysis for apoptotic response in human myelogenous leukemia cells. In addition, he attended two academic meetings at Experimental Biology as a first author presenter. Logan also successfully wrote and received three independent grants to fund his research while at SRU.

Currently, he is a fifth year chemistry Ph.D. student at Duquesne University. He is working in Dr. H.M. "Skip" Kingston's research group, which focuses on analytical techniques for the betterment of environmental human health measurements. His research interests range from developing separation methods for the quantification of

human biomarkers using nanoESI-LC/MS/MS technology to laser ablation/MALDI quantification using Speciated Isotope Dilution Mass Spectrometry. He has attended and presented at both the PittCon as well the American Society for Mass Spectrometry conferences.

Logan is actively involved in numerous committees with both SACP and SSP and has been a member since 2013. In addition, he is currently the President for Duquesne University's Department of Chemistry and Biochemistry Phi Lambda Upsilon chemistry honor society. Logan is a founding member of Duquesne University's graduate student mass spectrometry committee that helps in overseeing operation of the mass spectrometry facility. In addition, he currently serves as the mass spectrometry graduate assistant that manages daily operation and routine maintenance of the facility; additional responsibilities include analyzing samples submitted from inorganic and organic chemistry groups within the department on high resolution mass spectrometers. In addition to the mass spectrometry committee he is also a founding member of the chemistry department's safety committee. He is also currently serving as the editor of the Pittsburgh Section of the ACS Crucible newsletter and has been an ACS member since 2009. Additional roles within the ACS involve being co-chair of publicity/marketing committee for Pittsburgh ACS and Vice-Chair of Pittsburgh ACS's Women Chemist's Committee. Logan has also been awarded the ACS Younger Chemist Committee Younger Chemist Leadership Development Award in 2016.

#### **Kim Woznack**

Kim Woznack has been an enthusiastic and active member of the ACS since she was an undergraduate student

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**2016-2017**  
**SACP - SSP presents:**  
**Continuing Education Joint**  
**Symposium**



# Homeland Security



**Date:** Saturday, December 3, 2016  
**Time:** 9:00 AM – 1:30 PM (lunch included)  
**Location:** Old Town Buffet (formerly Tambellini/Misaki)  
 860 Saw Mill Run Blvd. (Route 51S) Pittsburgh, PA 15226  
 (near the entrance of Liberty Tunnel south end)

**Agenda:**

- 9:00 AM Registration
- 9:30 AM Dr. Chuck Gardner, ChemImage: Introduction
- 10:00 AM Dr. Bill McKinsey, Biometrics Services, FBI’s Criminal Justice Information Services: “Biometrics: Technology, Practice and Challenges”
- 11:00 AM Mr. Timothy J. Taucher, Homeland Security Investigations: “DHS Overview”
- 12:00 PM Q & A and Luncheon
- 1:30 PM Closing

**Open to the Public by Advanced Registration**

Registration Fee: \$10.00 Per Person • Registration Deadline: **December 1, 2016**

To register, complete the form below, and send it with a check of \$10.00 payable to:

Spectroscopy Society of Pittsburgh  
 c/o Ms. Amy Bovino  
 300 Penn Center Blvd., Suite 332, Pittsburgh, PA 15235

Name \_\_\_\_\_ Phone No. \_\_\_\_\_

Institution \_\_\_\_\_ E-mail Address \_\_\_\_\_

Mailing Address: \_\_\_\_\_

## **Spectroscopy Society of Pittsburgh Technology Forum Bio Continued from Page 7**

Meredith Meyer Grelli is Co-Founder and Co-Owner of Wigle Whiskey, Pittsburgh's first distillery since Prohibition. Since beginning distilling in December 2011, Wigle Whiskey has worked to restore Pittsburgh's legacy of Rye Whiskey. More than 75,000 visitors visit the Distillery each year to learn about Whiskey production and regional history. Wigle spirits are distributed across the Mid-Atlantic and East Coast and have won a host of medals, including Best in Category Rye Whiskey, Wheat Whiskey and Genever-style Gin in America, by the American Craft Spirits Association.

Meredith also teaches New Product Development in Chatham University's Master of Food Studies Program, as well as Entrepreneurship courses for Chatham's Center for Women's Entrepreneurship.

Before starting Wigle, Meredith worked in brand management at the H.J. Heinz Company, received her MBA from Carnegie Mellon University, worked in community development around brownfield sites, studied cooking at Le Cordon Bleu Paris and received her BS in urban history and geography at University of Chicago. Meredith co-founded Burgh Bees, a Pittsburgh urban beekeeping organization and started the nation's first community apiary in the Homewood neighborhood of Pittsburgh. She serves on the Board of The Sprout Fund, Ethics Committee for the American Craft Spirits Association, Advisory Council for the Pittsburgh Technology Council and the Community Advisory Board for WQED. She has also served on the boards of the Mattress Factory and The New Hazlett Theater.

Meredith was named Alumna of the Year in 2016 by the Tepper School of Business at Carnegie Mellon University; a 2016 Athena Award finalist; a 2016 Business Women First Winner, a 2008-2010 Forte Fellow, and received the 2010 Canfield Roseman Entrepreneur of the Year Award, as well as the 2006 Harold Goettler Political Institutions Prize.

She lives in Pittsburgh with her husband and daughter.

### **Social Media Handles**

Twitter: @wiglewhiskey, @threadbarecider • Facebook: Wiglewhiskey, threadbarecider • Instagram: wiglewhiskey, threadbarecider

## **Spectroscopy Society of Pittsburgh Technology Forum Bio Continued from Page 7**

Prof. Rohit Bhargava is Founder Professor of Engineering and Chemistry at the University of Illinois at Urbana-Champaign. He received dual B.Tech. Degrees (in Chemical Engineering and Polymer Science and Engineering) from the Indian Institute of Technology, New Delhi in 1996. His doctoral thesis work at Case Western Reserve University (in Macromolecular Science and Engineering) was in the area of polymer spectroscopy and developing infrared imaging. As a Research Fellow at the National Institutes of Health (2000-2005), subsequently, he formulated infrared imaging as a tool for molecular digital pathology. Rohit has been at Illinois since, with a research home at the Beckman Institute for Advanced Science and Technology, as Assistant Professor (2005-2011), Associate Professor (2011-2012) and Professor (2012-). Research in the Bhargava laboratories focuses on theory and simulation for spectroscopic imaging, developing new instrumentation and making chemical imaging practical for digital molecular pathology. Using 3D printing and engineered tumor models, his recent research seeks to elucidate hetero-cellular interactions in cancer progression. Among recent national honors for research are election as Fellow of the Society for Applied Spectroscopy (SAS) as well as of the American Institute for Medical and Biological Engineering (2015), the Meggers Award (SAS, 2014), Craver Award (Coblentz Society, 2013) and the FACSS Innovation Award (2012). Recently, he founded and served as the coordinator of the Cancer Community@Illinois. The effort is now designated to become a science and engineering-focused Cancer Center. Earlier in his career, Rohit was the first assistant professor hired into the new Bioengineering department at Illinois and played a key role in its establishment and development. His dedication to education has been recognized (Rose and Everitt awards) and he is routinely nominated to the list of teachers ranked excellent at Illinois. Among recent educational innovations is the development of a challenge-inspired model for undergraduate education (Cancer Scholars Program) and National Institutes of Health (NIH)-funded graduate training program focusing on the Tissue Microenvironment. His research is supported by the NIH (NCI, NIBIB, NIMH, NIGMS), Department of Defense (Intelligence Advanced Research Projects Activity, Office of Naval Research), National Science Foundation, nonprofit foundations and industry.

## 2016 Pittsburgh Award Winner Dr. Neil Donahue Continued from Page 1

with a joint appointment in Chemistry and Chemical Engineering, later adding an appointment in Engineering and Public Policy. At CMU he was the founding director of the Center for Atmospheric Particle Studies and now serves as the Director of the Steinbrenner Institute for Environmental Education and Research as the Thomas Lord Professor of Chemistry.

He is a fellow of the American Geophysical Union and is recognized as a “highly-cited researcher” by Thomson-Reuters. His research ranges from quantum chemistry to the experimental investigation of wood smoke. One focus area is the reaction dynamics of alkene ozonolysis, emphasizing collisional energy transfer and the behavior of both vibrationally excited and collisionally stabilized gas-phase carbonyl oxides (“Criegee” intermediates). A second area is the chemistry and physics associated with new-particle formation and growth in Earth’s atmosphere, which he studies as part of the CLOUD experiment at CERN. A third area is the coupled chemistry and phase partitioning thermodynamics driving the evolution of organic particulate matter.’

## Councilor Bio Kim Woznack Continued from Page 9

affiliate at Hartwick College. Earning her B.S. in chemistry in 1997. She went on to earn her Ph.D. in Inorganic Chemistry working with Art Ellis and Tom Kuech at the University of Wisconsin-Madison. She was a postdoctoral research associate in the field of chemical education with Chris Bauer at the University of New Hampshire from 2002-2004 before joining the faculty at California University of Pennsylvania. Kim served as the Chair of the Chemistry & Physics Department from 2011-2014. She was fully promoted to the rank of Professor in 2016.

After participating in the Younger Chemist Committee (YCC) track of the ACS Leadership development Workshop, Kim sought to volunteer for ACS at the national level. Kim was appointed to serve as an Associate member of the national Women Chemists Committee (WCC), from 2011-2014. Kim is now in her first three-year term as a full Member of the national WCC. Kim has served as the WCC Recording Secretary and also the national WCC Program Chair since 2014. Service on the national WCC takes Kim to both ACS national meetings each year. Kim is an enthusiastic supporter of women in STEM and is one of the co-editors of the book, “Mom the Chemistry Professor”.

Kim has been a member of the Society of Analytical Chemists of Pittsburgh (SACP) since 2009, and she regularly drives a Cal U van filled with Cal U students (both ACS and SACP-student affiliates) to the monthly SACP meetings at Duquesne University. Kim was proud that the Cal U ACS-student affiliates received “Honorable Mention” for their work in 2015-2016. Kim also had the pleasure of serving as a Pittcon 2016 Conference Week Staff member for the first time in Atlanta.



### THE ACS PITTSBURGH SECTION FORMER CHAIRS GATHERING

**NOVEMBER 29, 2016**

*To acknowledge the great work put forward by past Chairs, we will be recognizing those individuals who have formerly served in this role at the upcoming Annual Awards Banquet.*

**GRAND CONCOURSE  
100 WEST STATION SQUARE DR.  
PITTSBURGH, PA 15219**

**SOCIAL HOUR: 6:30 CASH BAR  
DINNER: 7:00**

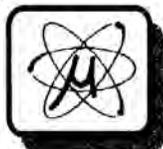
*To RSVP, please contact Evonne Bauldauff at  
ebaldauff@waynesburg.edu*

# Business Directory

## Services

## Services

## Services



### Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION  
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SOCIETY FOR  
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## Get Connected!

Stay up-to-date on all the happenings of the Pittsburgh Section ACS

**Section's Website:** [www.pittsburghacs.org](http://www.pittsburghacs.org)

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# Business Directory

## Services

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## Services

### Volunteers Needed!

There are a number of volunteer opportunities in the Pittsburgh ACS section! If you are interested in volunteering, please contact Heather Juzwa at [hljuzwa@shimadzu.com](mailto:hljuzwa@shimadzu.com)!

### Crucible Deadline

The deadline for items submitted to The Crucible is the 15<sup>th</sup> of the month prior to publication.

For example, all items for the December 2016 issue must be to the editor by November 15, 2016.

### The Crucible

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## Career Opportunities

### 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/recr\\_disp.php](http://www.mboservices.net/recr_disp.php)
- <http://pubs.acs.org/chemjobs/>

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# The Crucible

A newsletter of the Pittsburgh Section of the American Chemical Society

124 Moffett Run Rd.  
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## Change of Address

If you move, notify the American Chemical Society, 1155 Sixteenth Street, N.W., Washington, D.C. 20036.

To avoid interruption in delivery of your CRUCIBLE, please send your new address to Traci Johnsen, 124 Moffett Run Rd., Aliquippa, PA 15001. Allow two months for the change to become effective.

## Pittsburgh Area Calendar

### Monday, November 7

Society for Analytical Chemists of Pittsburgh

*“Chemical Monitoring of Neurotransmission with Microelectrodes”*

R. Mark Wightman, Ph.D., University of North Carolina at Chapel Hill  
Duquesne University, Pittsburgh, PA

### Wednesday, November 9

Pittsburgh Section ACS Energy Technology Group

*“Unconventional Natural Gas Development and Safety Perspective”*

Doug Mehan, Director of HES, PennEnergy Resources  
Old Town Buffet, 860 Sawmill Run Rd., Pittsburgh, PA 15226

### Wednesday, November 16

Spectroscopy Society of Pittsburgh

#### Technology Forum

*“If the Distillery Fails, We’ll Have Everything We Need to Start a Liberal Arts College”*

Meredith Grelli, Co-Founder of Wigle Whiskey Distillery

#### Technical Program

*“Infrared Chemical Imaging: from Theory to Therapy”*

Professor Rohit Bhargava, University of Illinois at Urbana-Champaign  
Duquesne University, Pittsburgh, PA

### Tuesday, November 29

Pittsburgh Section ACS Awards Dinner

The Grand Concourse, 100 West Station Square Dr., Pittsburgh, PA 15219

### Saturday, December 3

SACP and SSP Presents: Continuing Education Joint Symposium

*Homeland Security*

Old Town Buffet, 860 Sawmill Run Rd., Pittsburgh, PA 15226