

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

June 2019 Volume 104, No. 6



June Meeting
Dr. Mukund S. Chorghade
THINQ Pharmaceuticals
and Chair, ACS Princeton Section

HIGHLIGHTS Comments From the Chair 87 **News Atoms** 88 Speaker's Abstract and Biography 90 Chemists Celebrate Earthweek 94 Philadelphia Science Festival 96 Calendar of Activities 100

ADVANCE NOTICE

SEPTEMBER MEETING Thursday, September 19, 2019

6 - 9 PM

Speaker: Dr. Carolyn Fisher Senior Scientist, Decernis LLC

University of the Sciences
Athletic and Recreation Center
600 South 43rd Street
Philadelphia, PA 19104-4495

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

ACS Philadelphia Section
Founded April 15, 1899

STAFF

EDITOR-IN-CHIEF

Robin S. Davis

EDITORS

News Atoms: Alan Warren Proof Editors: Anthony Addison

> Georgia Arbuckle-Keil Kendra Luther Corrie Kuniyoshi Marge Matthews Alan Warren

ADVERTISING MANAGER

Victor Tortorelli

COMMUNICATIONS COMMITTEE Chair: Lee Hoffmann

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

Alan Warren

CONTENTS

September Advance Notice	85
Comments From the Chair	87
New Section Website Address	87
News Atoms	
ACS Career Consultants	88
June Meeting	89
Speaker's Abstract and Biography	90
Volunteers Needed for Spring 2020 ACS National	
Meeting in Philadelphia	91
2019 Scholastic Achievement Winners	91
Essential Workplace Skills for STEM Industry	
Professionals	93
Chemists Celebrate Earthweek	94
Philadelphia Science Festival	96
Chemical Consultants Network	98
Directory of Services	99
2019 Calendar of Activities	

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

Advertising: Victor Tortorelli, vtortorelli@ursinus.edu

Comments From the Chair



Jim Murray

Greetings to all on a lovely spring afternoon! I am enjoying the bright sunshine and a refreshing breeze as I write this month's column. Things are very active now as the Section prepares to celebrate our 50-, 60-, and 70-year members. I am hoping for a repeat of the current weather on June 20th as we gather at the William Penn Inn in North Wales, PA for this event. Please feel free to join us and encourage others to do so.

The Section is also proud of the recipients of this year's awards for excellence in teaching; both at the pre-college and college level. Ms. Amanda Coopersmith of Holy Ghost Preparatory High School and Dr. Roy Keyer of Temple University. Let us all extend our congratulations to these two individuals who work tirelessly to inspire the next generation of chemistry students!

Joe Martino and I had the pleasure of attending the May meeting of the Chemical Consultants Network and ChemPharma at the Smokehouse Tavern in Lansdale, PA. The evening's presentation by Dr. Peter Mlynek on patents was very interesting and informative. Do you know that the Chemical Consultants Network (CCN) is a topical discussion group within the ACS Philadelphia Section? If not, I encourage you to check them out along with the other topical groups within the Section. I want to extend my thanks to Dr. Keith Wing (Chair of CCN) for inviting us and for the hospitality and thoughtful discussion.

Please know that just because summer is around the corner, I will still be giving my full efforts to leading the Section. There are ideas and plans that I want to see become reality and I will do my best to make that happen. If during your down time over the summer months you have any ideas, suggestions, questions, or concerns regarding the Section please bring them to my attention. It is only through the spirit, dedication, and creativity of our membership that new ideas come forward and become reality.

My best wishes for a safe and relaxing summer season!

To all our members:

We have a new website!

As of June 1st you can find us at PhillyACS.org



NEWS ATOMS—*Alan Warren*

The American Chemical Society named 22 students as 2019 SCI scholars. The outstanding undergraduate chemistry and chemical engineering students will receive industrial internships supported by the Society of Chemical Industry. Among the winners is **Zoeb Mohammedshah** of the University of Pennsylvania who will be placed with W.R. Grace.

The ACS division of chemical toxicology will present its 2019 Founders' Award to Penn's **Trevor Penning** during the San Diego meeting in August. He teaches biochemistry, biophysics, pharmacology as well as obstetrics/gynecology. His research in chemical toxicology and environmental science has yielded over 500 publications.

DEATHS

Peter N. Haytko, pharmaceutical scientist, age 74. He was a senior associate scientist with Janssen Pharmaceuticals. No further details available.

Brian McGuinness, organic chemist, April 10, 2019 at 55. He was director of chemistry at Venenum Biodesign in the field of drug discovery.

Jose E. Valentini, chemical engineer, April 11 at 68. He held various R&D positions with DuPont at several locations and also spent four years with Huntsman Textiles in Europe. He was an aviation instructor as well. Valentini was a 40+ year member of ACS.

Charles Maris Tatum, Jr., research chemist, April 21st at 71. After teaching three years at Middlebury College in Vermont, he joined Rohm and Haas as a senior scientist. He retired as senior vice president and CTO.

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.

JUNE MEETING

THE PHILADELPHIA SECTION, AMERICAN CHEMICAL SOCIETY

presents

Luncheon Honoring 50-, 60- and 70-Year Members

Featuring:

Mukund S. Chorghade, PhD

THINQ Pharmaceuticals, and Chair, ACS Princeton Section

Fascinating Adventures in Chemistry: A Personal Perspective

Thursday, June 20, 2019 10:30 AM – 1:30 PM

William Penn Inn 1017 Dekalb Pike (US 202) Gwynedd, PA 19436

Register <u>here</u>

Or by contacting the Section Office PhilaACS@gmail.com (215)-382-1589

Board of Directors Meeting William Penn Inn 1:30 PM



SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. Mukund S. Chorghade
THINQ Pharmaceuticals, and Chair, ACS Princeton Section
Fascinating Adventures in Chemistry: A Personal Perspective

Abstract: While biotechnological advances, genomics and high throughput screenings or combinatorial and asymmetric syntheses have opened new vistas in drug discovery and development, the industry is facing a serious innovation deficit. Critics suggest that "we have become high throughput in technology, yet have remained low throughput in thinking." Process Chemistry/Route Selection are important activities in the path of a drug from discovery to market. We will exemplify these principles and the fun I have personally had in a sometimes chequered career in Chemistry. My path from an Indian foreign student to an American immigrant and then a US citizen has been a cherished one and I have benefitted from the generosity, magnanimity and wisdom of Americans at all stages of my life.

Biography: Dr. Mukund S. Chorghade is a serial entrepreneur, President and Chief Scientific Officer, THINQ Pharma/MVRC Research/Chorghade Enterprises. He is the Chief Scientific Officer of Chicago Discovery Solutions, and has had Adjunct Research Professor/Visiting Fellow/Scientists appointments at Harvard, MIT, Princeton, Cambridge, Caltech, University of Chicago, Rutgers, Strathclyde and several other universities.

Dr. Chorghade earned his BS and MS from the University of Poona, and a PhD in organic chemistry at Georgetown University. He completed postdoctoral appointments at the University of Virginia and Harvard University, visiting scientist appointments at University of British Columbia, College de France/Université Louis Pasteur, Cambridge and Caltech and directed research groups at Dow Chemicals, Abbott Laboratories, CytoMed and Genzyme. He has been a recipient of three "Scientist of the Year Awards" and is on the Scientific Advisory Board of several corporations/foundations.

He was privileged to be Section Chair of Brazoria (1990) and of Northeastern Section in 2007. He is Chair of the Princeton Section for 2019 and is currently on its Board of Directors. He is an active participant in ACS' Career Services/Professional Development/Entrepreneurship and the Small Chemicals Businesses Division. He is the Chair of the RSC Committee on Process Chemistry and Technology (2018-2020)



Volunteers Needed: 259th ACS National Meeting in Philadelphia, Spring 2020

Philadelphia will be the site of the 259^{th} ACS National Meeting in Spring 2020 (March 22-26, 2020). The theme of the 2020 Spring meeting is "Macromolecular Chemistry: the Second Century." This is the Section's call for volunteers to help plan: (a) items for display and give-away at the Host Section booth; and, (b) connect with technical program organizers seeking local professionals for session proposals and organizing.

We are seeking a group of volunteers with differing interests and time availability: (a) individuals who can staff the host booth at the Convention Center for 1 to 2 hours; (b) individuals who are creative and devise ideas for giveaways to attendees. We are seeking memorable giveaways that will connect with the macromolecules theme and/or Philadelphia. Some technical divisions are seeking local scientists willing to assist in generating session programs.

Please contact Sharon L. Haynie, PhD (<u>SLHaynie55@gmail.com</u>) to volunteer or for more information.

2019 Scholastic Achievement Award Winners



Back Row from Right to Left: Gabriel Braun, Gabrielle DiEmma, Julia Dorsheimer, Nicolie Aoki, Elise Brutschea, Diana Rachii, Thi Tran, Lynnsey Rebner, Erica Knorr, Ashley Rivera-Galletti, Patrick Reagan. **Front Row from Left to Right:** Colin Howell, Daniel Coyle, Morgan Bailey, Haley Varnum, Morgan Hesser, Borna Novak.



2019 Scholastic Achievement Award Winners (cont'd)

Gabrielle DiEmma Arcadia University

Haley Varnum Bryn Mawr College

Diana Rachii Delaware Valley University

Morgan Hesser Drexel University (Chemistry)

Lynnsey Rebner Eastern University
Gabriel Braun Haverford College

Morgan Bailey Immaculata University

Daniel Coyle LaSalle University

Ashley Rivera-Galletti Rutgers University

Elise Brutschea St. Joseph's University

Colin Howell Swarthmore College

Noah Sheedy Temple University (Biochemistry)

Thi Tran Temple University (Chemistry)

Eric Arellano University of Pennsylvania (Chemistry)

Kyle Kersey University of Pennsylvania (Chemical & Biomolecular En-

gineering)

Borna Novak University of the Sciences in Philadelphia (Biochemistry)

Patrick Reagan University of the Sciences in Philadelphia (Chemistry)

Julia Dorsheimer Ursinus College

Claire Teahan Villanova University (Chemistry)

Erica Knorr West Chester University

Nicolie Aoki Widener University





Join the American Chemical Society in Philadelphia on Tuesday, June 18 to develop critical workplace skills for STEM industry professionals. This workshop is ideal for chemists, chemical engineers, physicists, engineers, and other STEM professionals looking to advance in the first 10 years of their careers.

During the workshop, you will learn how to:

- Present your data more effectively to management
- Organize and run effective meetings
- Work more readily and successfully across age groups
- Manage projects more quickly and effectively

Workshop Details:

- Where: Philadelphia Marriott Downtown | 1201 Market Street Philadelphia, PA 19107 (map)
- When: Tuesday, June 18, 2019 | 9 AM 4 PM
- Cost: \$149 for ACS members | \$329 for non-members

Your registration includes on-site lunch, as well as morning and afternoon networking breaks.

Register Now



CHEMISTS CELEBRATE EARTHWEEK—Bill Smith

The Section celebrated Earth Week in April as K-12 students wrote and illustrated poems using the CCEW theme, "Take Note: The Chemistry of Paper." The poems came in the form of Haiku, Limerick, free verse, and blank verse. Topics included Bioplastics, Cellulose, Fiber, Lignin, Plastic, Polymer, Pulp, and Slurry.

Each of the students who participated received a certificate of Honorable Mention from the Section. First Place winners in each of the grade categories received a First Place certificate and a \$50 dollar prize. Additionally, our Section's winners have been submitted to National for possible further prizes and recognition at that level.

We congratulate the following first place winners:

Section Winners:

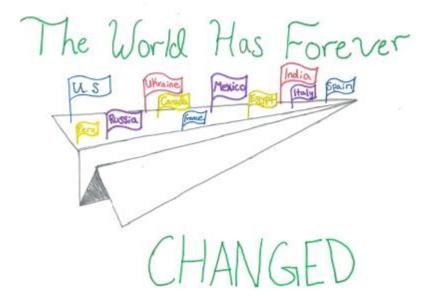
- K-2 Norah Wichterman, Concord Elementary School, Glen Mills, PA
- 6-8 Noelle Lehrman, Paxon Hollow Middle School, Broomall, PA
- 9-12 Sigourney Sherlaw, Conestoga High School, Berwyn, PA

Thank you to the following Education and Outreach Committee volunteers: Elizabeth Bish, Lindsay Davis, Steven Fleming, Laura Grande, Lee Hoffman, Jean Mihelcic, Robert Stanley, and Deborah Walsh.

Norah Wichterman (grade 2)



Noelle Lehrman (grade 8)



Paper Poem By: Noelle Lehrman

Paper lots of fun Paper helps me get work done It makes my day run

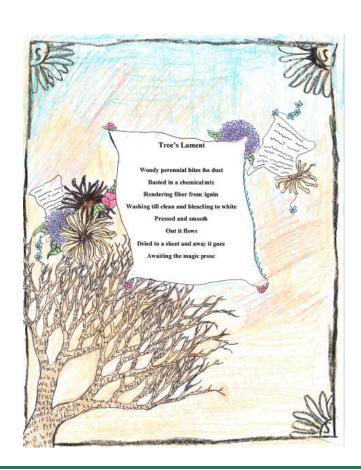
Lots of paper planes Found in Russia and Ukraine Paper boats and chains

But people don't know Paper, it doesn't just grow Process you should know

Pulp is now reused Machines press pulp together With plastic it's fused

Repeatedly pressed Pulp transforms into paper No need to be stressed

Sigourney Sherlaw (grade 11)



PHILADELPHIA SCIENCE CARNIVAL—Tom Umile

The Section joined over 150 exhibitors at the Philadelphia Science Carnival on May 4, 2019 on the Benjamin Franklin Parkway. Volunteers from the Section helped over 475 visitors investigate the chemistry of paper marbling. Each participant used shaving cream and food coloring to make a piece of artwork they could take home. Additionally, a description of the chemistry behind the marbling process and links to other science and art activities from the ACS website were printed in the back of each "canvas" so participants could continue exploring after the event.

Thank you to all our volunteers who made the day a success: Vanessa Boschi, Mike Brignone, Jim Gamrat, Taylor Keller, Joe Boscia, Jack Roireau, Dan Zuschlag, Destini Stanton, Bria Gillard, Eric Slaweski, Julia Tasca, Elle Gordon, and Jim Healy.















CHEMICAL CONSULTANTS NETWORK

JUNE 12, 2019 MEETING



ANNUAL OPEN FORUM BUFFET

SPOUSES WELCOME!!!

Date and Time: Wednesday, June 12, at The Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Buffet, 6:15 PM; Forum and Business Session, 7:30 PM

Program: As in the past, we will informally exchange questions and experiences relating to our activities as independent chemical consultants or our interests in becoming one. This gathering has been one of our most popular and enjoyable events, so don't miss it.

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

Reservation: <u>Click here to register to attend the event</u>. Fee, including dinner and non- alcoholic beverages is \$25 for individuals or \$40 per couple. Reservation/cancellation deadline is at noon **Monday, June 10, 2019**. DRESS IS CASUAL.

CONSULTANTS - OPPORTUNITY HERE! PLEASE VISIT http://www.chemconsultants.org/

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

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

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

DIRECTORY OF SERVICES

CAREER DEVELOPMENT

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

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

Comittee details can be found at:

www.membership.acs.org/p/philadelphia

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

Custom Synthesis of Chemicals

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

TYGER Scientific Inc.

324 Stokes Ave. Ewing, NJ 08638 Phone: 888-329-8990 Email: sales@tygersci.com

SURPRISE

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

PROMOTE YOUR PRODUCTS AND SERVICES • ADVERTISE IN THE CATALYST

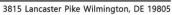
The Catalyst readership is greater Philadelphia's largest source for chemical and biochemical buyers. The Catalyst reaches more than 5,400 readers each month. It has been estimated that these buyers annually purchase more than \$150,000,000 of:

- EQUIPMENT
- SUPPLIES
- CONSULTING SERVICES

Placing an advertisement in The Catalyst is the lowest cost method of reaching this select audience.

For further information and other options for promoting your company's products and services, contact vtorterelli@ursinus.edu







Expertise in Complete Materials Characterization

Quality Check	Contaminations	Product Failure	Evidence Inspections
Chemicals	Organic & Inorganic	Defects	Full Lab Access to All Testing
Metals	Elemental Mapping	Corrosion	Sample Preparation
Polymers	SEM & EDS	Metal Phases	X-Ray Radiography
Plastics	FTIR	Grain Size	Vickers, Knoops, Rockwell

Learn about more services at www.MicronAnalytical.com or Call (302) 998-1184

ADVERTISING INDEX

ACS	99
Micron Inc.	99
Robertson Microlit Labs	99
Tyger Scientific, Inc.	99

Robertson Microlit Laboratories

Where speed and accuracy are elemental

Elemental CHN, S, X, Analysis (same day service)

Metals by ICP-OES, ICP-MS, A/A

FTIR, UV/VIS Spectroscopy

DSC, TGA, melting point KF Aquametry, Titrimetry

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

Rapid Results • Quality • Accuracy • Competitive Pricing

Advertising: vtortorelli@ursinus.edu



PHILADELPHIA SECTION, ACS CURRENT CALENDAR OF ACTIVITIES

Date and Time	Event	Location/Information			
May 30 th – June 1 st	MARM 2019: Seeking Solutions Through	Hosted by the Maryland Section of the ACS			
	Chemistry	UMBC			
		Baltimore, MD			
		www.MARM2019.org			
Wednesday, June 12 th	Chemical Consultants Network Annual	The Cynwyd Club			
5:30 – 8:30 PM	Open Forum Buffet	332 Trevor Lane			
		Bala Cynwyd, PA			
		http://chemconsultants.org/event-3364938			
Tuesday, June 18th	ACS Workshop: Essential Workplace	Philadelphia Marriott Downtown			
9 AM – 4 PM	Skills for STEM Industry Professionals	1207 Market Street			
		Philadelphia, PA 19107			
		https://www.acs.org/content/acs/en/campaigns/essential-workplace-			
		skills-for-stem-industry-			
		professionals.html?sc=190409 acq em STEMwkspJK od			
Thursday, June 20th	Philadelphia ACS Section Meeting	William Penn Inn			
11:30 AM – 1:30 PM	50-, 60- and 70-Year Member Recogni-	1017 DeKalb Pike (US 202)			
	tion: Fascinating Adventures in Chemis-	Gwynedd, PA 19436			
	try: A Personal Perspective by Mukund	http://bit.ly/2VfwW8d			
	Chorghade (THINQ Pharmaceuticals)				
Thursday, June 20 th	Princeton ACS Section Meeting: Current	Frick Chemistry Laboratory			
5:30 – 9:30 PM	Developments within the ACS, with Spe-	Princeton University			
	cial Emphasis on Meeting Needs of	Princeton, NJ			
	Chemical Scientists Across the Global	http://chemists.princeton.edu/pacs/event/princeton-acs-june-20-			
	Chemical Enterprise by Tom Connelly	meeting/			
	(ACS)				
Friday, June 28 th	Empowering Women in Organic Chemis-	Chemistry Building			
8 AM – 5 PM	try 2019: Various talks from industrial	University of Pennsylvania			
	and academic chemists, poster session,	34th and Spruce Streets			
	panel discussions and networking.	Philadelphia, PA 19104			
		https://ewochem.org/EWOC/ewoc-2019/			
	Please check the individual websites for additional updated information				
All c	All content submissions are due on the 15th day of the month prior to publication				