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Philadelphia Section Award Dr. Feng Gai

**University of Pennsylvania** 

# HIGHLIGHTS Comments from the Chair 145 ACS Fellow Dr. James D. Burke 149 ACS Career Workshop 161 Book Review 163 Calendar 166

#### **ADVANCE NOTICE**

#### **NOVEMBER MEETING**

Wednesday, November 12, 2014

(Note change in day and date!)

2014 Ullyot Lecture
Dr. George Whitesides
Harvard University
at the Chemical Heritage Foundation

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

ACS Philadelphia Section

Founded October 15, 1899

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Robin S. Davis

#### **EDITORS**

News Atoms: Alan Warren

Proof Editors: Georgia Arbuckle-Keil

Kendra Luther Corrie Kuniyoshi Marge Matthews Alan Warren

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phone: (781) 837-0424; email: cust-svc@mboservices.net.

Comments From The Chair



October is my favorite month. We get to enjoy the color show that Mother Nature produces during the month of October. It is also during this month that we usually have National Chemistry Week! This year NCW is October 19-25. The Philadelphia Local Section NCW Coordinator is Renee Harris. If you have any NCW plans, NCW ideas, or NCW questions then contact her at

(<u>rharris1004@gmail.com</u>). In order to improve our continuity from one year to the next, it would help if you send Renee a short report describing any of your NCW activities.

The September local Section meeting was a tour of the Philadelphia Distilling operations. It was a fun evening with a little bit of chemistry. We were able to sample great gin and tonics and the food was excellent. Thanks to those who made the event possible. We are hoping to have another meeting with Philadelphia Distilling next year after they move into their new facility downtown.

The Board of Directors of the local section has approved the slate of candidates that past Chair J.P. Northrop presented at the last Board meeting. Thank you, J.P., for getting the list of candidates together. It is no small effort. I express a heartfelt thanks to all of the volunteers who have demonstrated a willingness to serve in the Philadelphia local section. Without your service, this organization would not function. Keep up the good work!

The October meeting is the seminar associated with our annual Philadelphia Section Award. This year's awardee is Feng Gai from the University of Pennsylvania. The meeting is Thursday, October 16<sup>th</sup> at the UPenn Chemistry Department. Everyone is invited to attend.

We extend a special invitation to the ACS members of the former Ocean County Section of the ACS. The Philadelphia Section is eager to involve the Ocean County, New Jersey ACS members in all aspects of our operation. If you are living in Ocean County, we hope to see you at the monthly meetings.

#### **HELP FOR PHILADELPHIA SCHOOLS**

Science teachers within the School District of Philadelphia are seeking donations of laboratory supplies and equipment. For example, materials that are needed are: consumables, glassware, burettes, hand held pH meters, ground joint glassware. We will arrange to pick up your generous gifts.

Please contact Jim Jetter: <u>jjetter@philasd.org</u> or (610) 716-9424.



#### **OCTOBER MEETING**

The Philadelphia Section, ACS

presents the

#### 2014 PHILADELPHIA SECTION AWARD

to

#### DR. FENG GAI

Edmund J. and Louise W. Kahn Term Professor of Chemistry and Director, Ultrafast Optical Processes Laboratory University of Pennsylvania

#### Protein Folding and Functional Dynamics

Thursday, October 16, 2014 6:00 PM

Carolyn Hoff Lynch Lecture Hall Chemistry Building, University of Pennsylvania 231 South 34<sup>th</sup> Street, Philadelphia, PA 19104

**Reception:** 5:00-6:00 PM in the Alumni and Faculty Hall of Fame, Chemistry Building, University of Pennsylvania.

The reception and lecture are free.

**Dinner** following the lecture at Penne Restaurant, 3611 Walnut Street **Dinner Cost:** \$40: Students with reservations and ID: \$20

**Reservations** should be made by calling Mrs. Libby Harper at the Section Office, (215) 382-1589, by 5:00 PM on Thursday, October 9<sup>th</sup>. Cancellations, if necessary, cannot be accepted after NOON on Tuesday, October 14<sup>th</sup>. UNCANCELLED RESERVATIONS WILL BE BILLED.

**Parking** is available in the Drexel University garage on Ludlow Street (from Market Street go south on 34<sup>th</sup>; it's the first left) and the University of Pennsylvania garage on 34<sup>th</sup> Street just past Ludlow. Metered street parking may also be available.

The Board of Directors will meet at 4:00 PM in the Makineni Room of the Chemistry Building (Room 260 in the Cret wing), University of Pennsylvania.



#### SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. Feng Gai

Edmund J. and Louise W. Kahn Term Professor of Chemistry and Director, Ultrafast Optical Processes Laboratory University of Pennsylvania

#### Protein Folding and Functional Dynamics

**Abstract:** Proteins can undergo various conformational transitions, and in many cases such conformational events are essential to their function. Due to the multidimensional nature of the underlying conformational energy landscape and the fact that protein structural motions can occur over a wide range of timescales, it is often difficult to directly probe and delineate the conformational event of interest with high temporal and structural resolution. In this talk, several examples will be discussed to demonstrate how linear and nonlinear spectroscopic techniques, in conjunction with site-specific infrared and fluorescence probes, can improve our ability to scrutinize the molecular details of protein folding and functional dynamics.

**Biography:** Dr. Feng Gai was born and raised in Shandong Province, China. He received a BS in Chemistry in 1983 and an MS in Physical Chemistry in 1986, both from Peking University in China. After teaching chemistry for three years as a lecturer at Tsinghua University in China, he became a chemistry graduate student in 1989 at Iowa State University and received a PhD in Physical Chemistry in 1994 under the direction of Professor Jacob W. Petrich. He then joined Professor Philip A. Anfinrud's group as a postdoctoral fellow at Harvard University, where he studied ultrafast dynamics of proteins. After spending two years studying protein-folding dynamics at Los Alamos National Laboratory as a director's postdoctoral fellow in Dr. R. Brian Dyer's group, he joined the faculty at the University of Pennsylvania as an assistant professor in 1999. Currently, he holds the appointment of Edmund J. and Louise W. Kahn Term Professor of Chemistry and also directs the Ultrafast Optical Processes Laboratory at Penn.

The research of Dr. Gai's group is aimed at exploring molecular structures and dynamics with a special emphasis on understanding the conformational transitions (e.g., folding) of complex biomolecules in the context of structure-dynamics-function relationships. He and his coworkers at Penn have applied and developed various state-of-the-art spectroscopic techniques to trigger and monitor protein folding and conformational dynamics in aqueous solution, in membranes, and in crowded and confined environments with appropriate time and structural resolutions, and have made many key discoveries in these areas and significant contributions toward our understanding of the protein-folding problem. In addition, the Gai group has been actively involved in development of new spectroscopic probes and methods for other biochemical and biophysical applications.

Dr. Gai has co-authored over 110 peer-reviewed publications and has delivered more than 130 invited talks at conferences and departmental seminars. His scholarly work at Penn has been recognized through many awards and distinctions, including a Research Innovation Award from the Research Corporation (2000), the CAREER Award from the National Science Foundation (2001), election to Fellow of the American Physical Society (2011) and the American Association for the Advancement of Science (2012), and an Alumni Excellence Award from Iowa State University (2014). Dr. Gai has also served as a member on the NIH MSFB Study Section and the Editorial Board of *Biophysical Journal*.

## **NEWS ATOMS—Alan Warren**

**Gary A. Molander** of the University of Pennsylvania will receive the American Chemical Society's 2015 Herbert C. Brown award for creative research in synthetic methods. The award is sponsored by the Purdue Borane Research Fund and the Herbert C. Brown award endowment, and will be presented at the March meeting in Denver.

#### **DEATHS**

**Rubin Bernstein**, industrial chemist, April 11, 2014. He was employed in 1941 by the detergent section of the Philadelphia Naval Shipyard test laboratory where he developed the first successful salt water soap. He joined Clarkson Laboratories in 1955 as a partner and head of research and development of industrial cleaners, latex compounds and adhesives. He then joined Memco Trading Company as a partner in 1974, dealing with surplus chemical, electronic and miscellaneous raw materials.

**Carey Rosenthal**, chemistry professor, July 30<sup>th</sup> at 71. He joined Drexel University in 1973 as assistant professor of chemistry and was promoted to associate professor in 1998. He studied scattering theory with the support of a National Science Foundation grant. In addition to research and teaching in the chemistry department he taught calculus, statistics, and linear algebra in the Drexel Evening College. He served as assistant department head and was elected to two terms to the faculty senate.

Dr. Rosenthal was a clarinet soloist as a young adult with the New York Youth Symphony, and was a piano student at the Bryn Mawr Conservatory of Music for 20 years. He ran the Boston Marathon in 1980.

**Joseph W. Nemec**, retired research chemist, August 24<sup>th</sup> at 92. He served as a communications officer in the U.S. Navy in the Pacific theatre during WWII. He joined Rohm and Haas as a bench chemist and retired after 35 years as head of research.



#### 2010 ACS FELLOW DR. JAMES D. BURKE

Dr. James D. Burke is the perfect example of an ACS Fellow for his outstanding achievements in, and contributions to, Science, the Profession, and the Society. Throughout his career, Jim consistently emphasized commitment to the Society and the dedication to move forward the positive aspects of chemistry to future scientists.

Jim received his BS in chemistry from Spring Hill College and his PhD in organic chemistry from the University of California, Berkeley, where he was an NSF Predoctoral Fellow. After obtaining his PhD he was a National Institutes of Health Postdoctoral Fellow at Columbia University and then joined Rohm and Haas as a Senior Research Scientist.

One of Jim's passions is encouraging others into the scientific field. While he began his career in synthesis and product development research, his true passion for recruiting and career development programs was eventually apparent as he accumulated 25 years of experience in technical recruiting. In 2001 Jim retired from Rohm and Haas, where he was manager of technical recruiting and university relations, with responsibility for scientific and engineering recruiting for his company's US locations and for managing university relations programs. His unique ability to match individual talent with the technical culture at Rohm and Haas left a legacy of a superior research community that continues to thrive. He has frequently lectured on these and related topics at various campuses, college placement conferences, and ACS meetings. This dedication to helping others was also evident in his involvement with the Big Brother/Big Sister Association of Philadelphia for which he was recognized with the Charles Edwin Fox Distinguished Service Award in 1993.

Jim's involvement with the ACS is well-known. He has worked at the local level of the ACS as a member of the Philadelphia Section. In 1991 he created The Graduate School Forum and through this his vision and actions have touched and molded countless young lives. Hundreds of students have benefited from this program. He continues to be a presenter of the ACS's "Preparing for Life after Graduate School" workshop.

Jim was chair-elect, chair, and past chair of the Philadelphia Section ACS. Jim has been an ACS councilor, an ACS career consultant, and very active in his local section. He was Chair of the ACS Committee on Economic and Professional Affairs and the ACS Committee on Local Section Activities.

He served on the ACS Board of Directors and was a member of its Executive Committee, Planning Committee and Strategic Alliances Subcommittee, and Professional & Member Relations Committee. While on the ACS Board of Directors he served as chair (2004-2006). He also chaired the Society Committee on Budget and Finance (2003-2004).

Jim has been recognized within and outside of the Society for his accomplishments. His awards include the ACS Division of Professional Relations Henry Hill Award, the Philadelphia Section

ACS Ullyot Award, the National Association of Colleges and Employers Employer of the Year Award, and the Midwest Association of Colleges and Employers Honorary Life Member.

Above is only a snapshot of Jim's career accomplishments and his many contributions to ACS. This is enough to give you a sense of why he was selected as one of the 2010 ACS Fellows.

#### STEM OUTREACH EVENT

October 18<sup>th</sup> from 1:00-4:30 PM at the Chemistry Building, University of Pennsylvania.

The Activities for Community Education in Science (ACES) program is focused on 3<sup>rd</sup>-9<sup>th</sup> grade co-ed students, and is run completely by graduate students in the Chemistry department at Penn. The students come to campus, where they are split into small groups according to grade level. Each group of students participates in three interactive science experiments, led by several students. For each experiment, the station instructors lead discussions about the scientific concepts with the students and provide them with some information that they can take back to their homes and classrooms. Additionally, each student is able to take home at least one souvenir from their experiments that day as well as a certificate of completion.

Registration can be done by the group leader at <a href="https://secure.jotform.us/kfvangelder/aces-oct-2014">https://secure.jotform.us/kfvangelder/aces-oct-2014</a>. Please let us know if you have any questions, and we hope to see some of your students at ACES this fall!

If you would like more specific information about the event, contact us at <u>upennwomeninchemistry@gmail.com</u>.

#### 2014 ELECTION SLATE OF CANDIDATES

#### Chair-elect:

Alan Heldon William (Rick) Ewing

#### **Director:**

Sheldon Miller
Judith Summers-Gates
Judith Cohen
Robert Gates
Melissa Cichowicz
John (J.P.) Northrop
Ivona Sasimovich
Victor Tortorelli
Marge Matthews
Renee Harris
Bo Wang

#### **Treasurer**:

John (J.P.) Northrop David Cichowicz

#### Councilor:

Judith Cohen
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John (J.P.) Northrop
James Tarver
Melissa Cichowicz
Alan Heldon
Carol Jean Bruner
Sandy Burcham
Georgia Arbuckle-Keil
Marge Matthews
Judith Currano
Ella Davis





# CHEMICAL CONSULTANTS NETWORK OCTOBER 8, 2014 MEETING

#### **CHEMICAL WEAPONS**

(Including Consulting Opportunities for Destruction, Neutralization, Conversion)

**Date & Time:** Wednesday, October 8, at The Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM.

#### **Chemical Weapons**

"There is a great need for international agencies and environmental groups to locate, destroy, neutralize, or convert these chemical weapons into value added materials. In closing we will look at opportunities for consultants by reviewing a list of agencies to contact."

#### John Brennan

Abstract: The evolution of chemical weapons dates back to ancient times beginning around 1400 BC with the use of "Scorpion Bombs" and "Greek Fire" or crude "Napalm" and slowing around 1200 AD at the time of the Inquisition. Development accelerated during WWI and WWII, along with increased interest in chemical research, development, and production for a multiplicity of applications. Gases used in WWI were Chlorine, Phosgene, Mustards and Lewisite; between WWI and WWII a great deal of interest was directed toward the synthesis and development of organophosphate insecticides (OPs) by Dr. Schrader in Germany at IG Farben company. Subsequently, Dr. Kuhn, a Nobel prize winner, elucidated the mode of action of these OPs using guinea pigs, primates and prisoners and found that the OPs had a significant effect on acetylcholine. Some of the profound physiological changes in these species will be discussed. Some of the most prominent compounds such as Tuban, Sarin and Soman will be discussed along with the production and industrial hygiene challenges posed by these highly toxic materials. These discoveries brought about the Chemical Arms Race and the development of the Chemical Weapons Convention (CWC). The chemical weapons legacy left to the world has created an international crisis since the rise of Al-Qaeda and the breakup of the Soviet Union. An environmental nightmare is looming in the oceans, seas, and buried in various parts of the globe for future generations. There is a great need for international agencies and environmental groups to locate, destroy, neutralize, or convert these chemical weapons into value added materials. In closing we will look at opportunities for consultants by reviewing a list of agencies to contact.

Biography: John J. Brennan is a resident of Bucks County, PA; he earned his MS in Chemistry from St. Joseph's University, under the direction of Dr. George Nelson and Dr. George Beichl. In 1968 he joined the Research Division of Rohm and Haas in the Agrochemical Research dept. He joined the Health Products dept. developing and filing an NDA for an antipsychotic drug for the treatment of schizophrenia in 1973. The Employee Health dept. eventually evolved into the Corporate Environmental in 1990 where he managed the implementation of a computer based plant integrated information management system. He left in 1995 after 27 years to become an independent chemical professional working as a consultant for such companies as ConEdison and other local environmental firms. In 1998 he joined the Porter Instrument Co. as the chemical health and safety manager. The company was sold to Parker Hannifin Corporation in 2005. He left Parker-Hannifin in 2008 and returned to independent consulting with InfoChem Systems, LLC.

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004. From I-76, drive S on City Line Ave. (US Rte. 1). Turn right on Conshohocken State Rd. (Rte. 23); stay in right lane. After second light watch for white left-turn arrows painted on street (about 0.14 mile). Do not follow Rte. 23 left at turn but instead go straight ahead onto Llandrillo Rd. (passing to the right of Valley Press printing). After one block bear left onto Trevor Lane at stop sign. Clubhouse and parking are on the left. Please park in lot if space is available; otherwise park on Trevor Lane. If lost, call the club at 610-667-4524, ext. 312. MAP

Reservation: Click here to register to attend the event, or e-mail CCNReservations@aol.com or call the ACS office at (215) 382-1589 (leave message on voicemail if necessary). Fee, including food and beverages (wine, beer & sodas), is \$25 by Saturday, October 4th. Dietary restrictions accommodated on a limited basis. There is no charge for talk only, but registration is suggested using contact information above.





Come out for an evening of fun with

Philly Younger Chemists Committee and Drexel ACS.

Surprise yourself and your friends with your daily chemistry knowledge!

**When:** Tuesday Nov. 4, 2014 from 7 − 9 PM

Where: Landmark Americana Tap & Grill

3333 Market St, Philadelphia, PA 19104

This event is open to the public, no cover charge!

Cash Prizes!

**Fundraiser info**: Portions of your bill will be donated by Landmark to benefit the students in the Drexel U. American Chemistry Society chapter. Just print, sign, and bring the Drexel ACS flyer found here:

https://www.facebook.com/drexelacs



#### 659th BOARD OF DIRECTORS' MEETING

Thursday, April 17, 2014 McCall Meeting and Conference Center, Upper Darby, PA

Present: David J. Cichowicz, Deborah H. Cook, Ella Davis, Anne DeMasi, Steven Fleming, Alan R. Heldon, Christine McInnis, John (J.P.) Northrop, Kathleen Shaginaw, William Smith, Thomas S. Straub, Judy Summers-Gates, Victor J. Tortorelli, Judith Cohen and Michelle Johnson.

Excused: Melissa Betz Cichowicz, Douglas Hausner, Cynthia Palmer, James Tarver and Denise Thomas

Also present: Elisabeth Harper and Carol Jean Bruner.

The 659<sup>th</sup> Board Meeting of the Philadelphia Section, ACS, was called to order at 4:05 PM. A quorum was present.

#### 1. Minutes

On motion, the January Board Meeting Minutes were passed with one abstention and no nays.

On motion, the March Board Meeting Minutes were passed with noted corrections to be inserted by Libby Harper. There were two abstentions and no nays.

#### 2. Excused

A number of members requested to be excused. See above.

#### 3. Committee Reports

#### A. Career Services Joe Martino acsphillycareerservices@gmail.com

The Career Services report was received electronically from Joe Martino and is appended hereafter as received.

- Networking Events: Career Services sent a survey to the Section membership which yielded statistically insignificant results due to a low reply rate (3 people out of approximately 5,000 Section members). Joe Martino will coordinate with Christie McInnis of YCC and Julie Kurtz of Career Services to brainstorm ideas for future networking events. Joe will connect with other individuals regarding the networking events as necessary.
- Career Services has established a robust working relationship with the Community Center at the Giant Super Food Store in Willow Grove, PA. Career Services has the ability to sign out a room at the Community Center as needed and as available at no charge to the Section, and the Community Center is hosting all Career Workshops and Career Club meetings for the remainder of 2014. The Community Center has also offered to provide catering on demand if

necessary for our events. Joe Martino would like to thank Mary Selman of Career Services for this very helpful venue recommendation.

- Publicity has begun for our next Career Workshop on Alternative Careers for May 13<sup>th</sup> from 6 PM to 9 PM at the Giant Willow Grove Community Center. This workshop will feature alternative careers for chemists. Panelists will include Lori Spangler (Bristol-Myers Squibb), Peter Mlynek (Mendelsohn, Drucker & Dunleavy, PC) and Amanda Martino (Amedra Pharmaceuticals).
- Our initial Career Club on March 25<sup>th</sup> moderated by Lori Spangler and Joe Martino was successful. Five participants out of ten registered were present. Feedback was very positive from the participants, and Career Services is of the opinion that even if the Career Club gets a consistently small turnout, the opportunity offered by Career Services to have interaction with ACS Career Consultants and to have a forum to brainstorm career ideas makes the efforts worthwhile. Our next Career Club will take place on June 3<sup>rd</sup>, and Lori Spangler will moderate. Joe Martino and Lori Spangler will alternate moderating the Career Club for the remainder of 2014.
- The ACS Council of Economic and Professional Affairs (CEPA) reports an approximate and staggering 15% unemployment rate for recent college graduates. Career Services will focus our November workshop on this issue and will target graduating PhD students and finishing post-docs for this workshop. CEPA is also considering establishing basic standards for career services programming for local ACS sections. The ACS Philadelphia Section Career Services Committee is being considered as a model for such a standard.

#### B. Awards

An insufficient response was received from the Awards Committee members to make any determination as to the Section's Award for Excellence in Teaching Chemistry at the Pre-college Level. Acting Committee Chair Northrop will be in touch with the remaining members.

Edgar Fahs Smith Lecture 2015, Peter Widom of Cornell has accepted.

C. Younger Chemists Committee Christine McInnis <a href="mailto:CMcInnis@dow.com">CMcInnis@dow.com</a>.

Approximately 80 people attended the March 24<sup>th</sup> Poster Session at the University of the Sciences.

The Session went well and U. Sciences was very helpful as host to the event. There were too few abstract books – next year have at least a list of titles and submitters. The University of the Sciences would like to host it again next year.

Planning for the 2015 Poster Session event has started.

Planning for the 2014 Science Festival is under way. Participation will be a joint effort with Bill Smith's student group. Shaving cream and bubble chemistry will be our themes.

The Quizzo event will be May  $13^{th}$  at the Landmark Americana Tap and Grill which is on Market Street between  $33^{rd}$  and  $34^{th}$  Streets.

They are looking for new members of the YCC Council in June.

#### 4. Officers Reports

#### A. Chair Steve Fleming <u>sfleming@temple.edu</u>

The Section needs to write a letter to the University of the Sciences thanking them for hosting the Poster Session in February.

The Poster Session volunteers should receive recognition for their time and energy which made the Poster Session possible. Invite them to the next board meeting.

MARM will be at Rowan University. No one from the Philadelphia Section has signed up yet. The deadline is April 26<sup>th</sup>.

The May meeting will be at Villanova. The June Meeting will be on Thursday the 19<sup>th</sup> at noon at the Iron Hill Brewery in Chestnut Hill. The 50 and 60 year members of the Section will be honored.

The Board discussed absorption of the Ocean County Section into the Philadelphia Section. A letter has been prepared inviting the Ocean County members to join the Philadelphia Section. Other sections may be interested in absorbing the Ocean County Section.

The Philadelphia Section is in need of a National Chemistry Week coordinator. NCW is October 19 to 26 this year.

#### B. Chair-elect Bill Smith willsmith2@aol.com.

Dr. Amanda Grannas (Villanova University) has been chosen for the Philadelphia Section Award for Excellence in Teaching in the Chemical Sciences at the Undergraduate Level. This selection was unanimously approved by the Board.

C. Secretary Alan Heldon <u>alanheldon@comcast.net</u>.

No report.

#### D. Treasurer D. Cichowicz cichowic@lasalle.edu

The Board has not yet received the rest of our allotment from National ACS.

The capital fund transfer in the budget (line 660) is well below what was budgeted.

On motion and second the Treasurer's Report was approved with no nays or abstentions.

The Board discussed whether funds received from Merck should be used for PAGES<sup>TM</sup> and agreed it should.

#### 4. Other Business

#### **Bylaws**

An insufficient number of ballots have been received for official acceptance of the proposed bylaws.



The Board discussed requesting an extension of the deadline which is April 17<sup>th</sup>. Other alternatives were discussed.

By motion the deadline was extended until May 13<sup>th</sup> for collection of the ballots with the results to be promptly sent to ACS National.

Women Chemists Committee Kathy Shaginaw reporting.

The April 5, 2014 PAGES<sup>TM</sup> event was successful. It was well attended, with 57 volunteers on hand.

The next PAGES<sup>TM</sup> events are November 8, 2014 and April 18, 2015.

The Board discussed publishing the Section financial reports in *the Catalyst*. Of specific concern was what financial information should be included.

Revision of the Section's Work Manual is continuing.

As there was no additional business before the Board, on motion, the meeting was adjourned at 5:24 PM.

Respectfully submitted,

Alan R. Heldon, Secretary <u>alanheldon@comcast.net</u>

#### 660th BOARD OF DIRECTORS' MEETING

Thursday, May 15, 2014 Villanova Conference Center Radnor, PA

Present: S. Fleming, A. Heldon, D. Cichowicz, J.P. Northrop, M. Cichowicz, D. Cook, E. Davis, A. DeMasi, D. Hausner, C. McInnis, C. Palmer, K. Shaginaw, T. Straub, J. Summers-Gates, J. Tarver, D. Thomas.

Excused: W. Smith, V. Tortorelli.

Absent: J. Cohen, M. Johnson.

Also: C.J. Bruner, E. Harper, R. Harris, J. Martino, M. Matthews.

The meeting was called to order at 4:05 PM. A quorum was present.

1. No minutes for the April meeting have been received; approval postponed to the June meeting.

- 2. Communications: W. Smith and V. Tortorelli have asked to be excused from this meeting.
- 3. Committee Reports:
- A.) Career Services Joe Martino (report also attached)

Transfer of future networking events to the social committee is on hold. The career services committee will not continue to sponsor them without a demonstrated need. There was poor response to the survey of the entire section.

The May 13<sup>th</sup> panel discussion on alternative careers: 56% of the registrants came and it was well received. The committee thanks the panelists.

On June  $3^{rd}$  there will be a Career Club meeting at the Giant Community Center in Willow Grove.

A workshop for recent doctoral graduates and post-docs is planned for November.

#### B.) Communications Committee Marge Matthews

The Communications Committee has been using the ACS Magnet Mail email service. If people unsubscribe to one of these emails, they are gone forever. Therefore, we may have to go back to MailChimp for the elections.

There was discussion of the slate order on the website and in the email blast – should it be alphabetical or in the ballot order? A motion was proposed by J.P. Northrop for using the ballot order. Motion passed.

#### C.) Younger Chemists Committee C. McInnis

A vote of thanks was given to Renee Harris for her leadership in the Harry Potter event, the poster session and the webinars.

At the Science Carnival on May 3 the YCC and Bristol High School had separate booths. They recommend that in the future the Section have only one booth.

The Quizzo event had 25-30 people in attendance, including board member Anne DeMasi. The food cost was \$400, on which they broke even. Some money was spent on prizes. There were YCC members from Temple and the University of the Sciences, but no one from the Section at large. How can they make their events draw more from the Section? The Quizzo game is a slow one, making it good for networking. The questions were good for a general audience. It was widely publicized.

The committee council is working on plans for 2015; 2014 members will be mentors for new members. They are actively looking for new YCC members. They plan six events during the year – considering a chocolate tour, wine and cheese, Philadelphia Museum of Art conservation lab, a ball game. Events will need teams to run them. Does Career Services label a networking event negatively?

Cathrine Jarinko is ready to lead the poster session at the end of March 2015 at the University of the Sciences.

On October 7<sup>th</sup> there will be a webinar on how to speak simply about your science.

#### D.) Social Committee Carol Jean Bruner

There is concern about social committee costs. It was originally a break even committee. Should it become a cost center? D. Cichowicz stated that finances are not an issue. Are our costs too high? Would more attendees reduce costs?

The Board discussed whether we should rethink the whole structure of meetings. Separating the board of directors meeting from the section meeting was discussed.

#### 4. Officer's Reports:

#### A.) Chair Steve Fleming

- 1. The 50- and 60-year member invitations will go out next week with the meeting details.
- 2. Bylaw update ballots given to C. McInnis.
- 3. The Finance Committee: Steve talked with Bill Golton at the Chemical Heritage Foundation.

Bill, as a former member of the investment board, offered to help J.P. with it. V. Tortorelli is actually the chair of the finance committee.

Our auditor of many years, John Rarick, has resigned. D. Hausner is our audit manager and will distribute a quote from a new auditor to the board.

- 4. The Ocean County Section dissolution: T. Addison, K. Shaginaw and D. Cook are our representatives to LaTrease Garrison at national. We need to get moving on this.
- 5. Deb Cook is judging at the MARM Chemagination contest in Princeton this Saturday. There were no entries from our section this year.
- B.) Chair-elect Bill Smith (in his absence he submitted the report below)

The Philadelphia Science Carnival (May 3<sup>rd</sup>) went extremely well with over 700 participants making shaving cream art and giant bubbles. Next year, Bristol High School will work in conjunction with the YCC (either as lead or assisting) in order to do guar gum slime. The YCC has agreed to decide on their future role and BHS students will participate either way.

The MARM Chemagination program received only two entries. We invited the same schools as last year when we got five entries. I do not believe that the entries merit sending forward to MARM and I have informed them.

I will be speaking to some board members before writing a *Catalyst* article to solicit members for a chemistry teacher topical group to work on Chemagination and the NCW ChemClub convention planned for the CHF. Both projects require a broader team of workers than we currently field. I will make these into efficiently run programs - promise. If anyone wants to volunteer immediately, have them email me at willsmith2@aol.com

C.) Secretary Alan R. Heldon

No report.

#### D.) Treasurer David Cichowicz

The allotment and dues were received from National the 20<sup>th</sup> of April. Councilor reimbursement is still to come.

We have about \$50,000 in the money market fund and checking accounts. The report was accepted.



#### 5. Other Business:

The next meeting will be at the Iron Hill Brewery in Chestnut Hill on June 19<sup>th</sup>.

There being no further business, the meeting was adjourned at 5:05 PM.

Respectfully submitted,

Elisabeth Harper for Alan Heldon

#### **HEADS-UP: ELECTION 2014**

Our annual election for officers, directors and councilors will take place this fall between October 18 and November 1. It will be online with notification by email. Paper ballots will be available on request. We will be sending out postcards with the details to those with no ACS email and those with bounced email addresses.



# THE ACS PHILADELPHIA SECTION Presents

# A Career Workshop on Non-Research Careers for Bachelor and Masters Level Chemists Saturday, November 15, 2014

9:00AM - 12:00PM Howard Gittis Community Center Temple University 1755 North 13<sup>th</sup> Street Philadelphia, PA 19122

This workshop, focusing on Bachelor- and Masters-level chemists, explores opportunities that go beyond the lab bench. Perhaps you are finishing school and are just beginning to think that the bench is not for you. Or perhaps you were displaced from a large company and want to try something different that also utilizes your chemical skill set. This workshop is the place to learn about new ideas from people who have successfully moved beyond the bench.

The format for this workshop will be a brief introduction by our panelists, followed by a timed networking session with the panelists and a question and answer session with questions provided by you! Our panelists include:

- \* Bill Smith (Chemistry Teacher, Bristol Borough School District)
- \* Mandy Martino (Sr. Regulatory Affairs Manager, Amedra Pharmaceuticals)
- \* Elizabeth Secord (Quality Assurance Specialist, Bristol-Myers Squibb)
- \* Shawn Springfield (Director of Business Development, Asymchem)
- \* Reba Holley (Senior Field Application Specialist, SPEware Corporation)

Please join us for this exciting and informative event!

A \$10 refundable deposit will be charged for this event. To receive your refund for attending the event, you must register for the event and pay the deposit through the Eventbrite website, present the ticket generated by Eventbrite at the event and attend the event. Tickets are transferrable, so if you cannot attend the event, please give your ticket to someone who can so that you can receive the refund.

To register for this event, please visit https://acsphilly-bsms-careerworkshop.eventbrite.com. Walk-ins are welcome to attend, however, all walk-ins without a transferred ticket will be charged a \$10 non-refundable admission fee at the door -- no exceptions!

Please note well! If you registered for the event, and paid the \$10 deposit and you do not attend the event and otherwise present your ticket, you forfeit your \$10 deposit to the ACS Philadelphia Section. The proceeds of all forfeited deposits and walk-in admission fees will be used by the ACS Philadelphia Section to fund future Career Services programming.



# Speaking Simply

Communicating your science



- 6:00 pm ET Networking
- 7:00 pm ET Webinar
- 7:30 pm ET Live Q&A



Douglas Dollemore,
ACS Office of Public Affairs
Darcy Gentleman,
ACS Office of Public Affairs



Papadakis Integrated Science Building, Room 120

S. 33<sup>rd</sup> St. and Chestnut St Drexel University

We will have hands-on demonstrations & food for participants

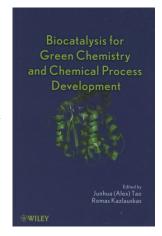
A Collaboration with ACS Younger Chemists Committee, ACS Office of Public Affairs, and ACS Webinars®



#### **BOOK REVIEW**—Alan Warren

Biocatalysis for Green Chemistry and Chemical Process Development, edited by Junhua Tao and Romas Kazlauskas. 492 pages, 6 ¼ by 9 ½ inches, hardbound, John Wiley & Sons, Hoboken NJ, 2011. ISBN 978-1-118-02830-8, \$125.

The editors bring together contributions by over 30 authors in this treatise that focuses on the use of biocatalysis as an important tool in green chemistry. "Green chemistry" is directed to the reduction or elimination of waste and toxic or hazardous materials. New enzymes can be employed to reduce the use of solvents, raw materials, and energy. Biocatalysis helps achieve these goals as revealed with several case studies and applications.



A variety of enzymes and microbial cultures are identified that demonstrate biocatalytical routes to chiral intermediates in drug development. For protein drug modification, chemical PEGylation (polyethylene glycol) is compared with green enzymatic processes. Some anticancer agents extracted from plant materials can be synthesized by microbial routes rather than conventional synthetic chemistry using environmentally detrimental catalysts and solvents.

Other chapters explore opportunities for biocatalysis in the flavor, fragrance, cosmetic, and agrochemical industries. Enzymatic reaction chemistry and biocatalytical steps in syntheses offer improvements in the fine chemical industry. Plastics derived from non-renewable petroleum sources could be replaced with biopolymers like polyhydroxyalkanoates. Enzymatic conversion of lignocellulosic feedstocks into needed chemicals is desirable for reasons of energy consumption and environmental impact.

Chapters on bioconversion of plant oils and microbial bioprocesses for production of industrial chemicals conclude this review of biocatalysis and its promotion of sustainable industrial practices.



Scholarships are still available for the Fostering Innovation Course sponsored by the Princeton Section of the ACS on October 4<sup>th</sup>.

See details below:

#### **Fostering Innovation Course**

## Saturday, October 4<sup>th</sup> from 1-5 PM

The Princeton Section of the ACS is sponsoring the Leadership Development Course - Fostering Innovation - on Saturday, October 4<sup>th</sup> from 1-5 PM. It will be held at Princeton University, Frick Laboratory, Room A57. (For more information on the ACS Leadership Development System see http://www.acs.org/content/acs/en/careers/leadership.html)

The fee is \$25 for the first 15 registrants (\$125 scholarships offset the \$150 course fee). Once the 15 scholarships limit is reached, the fee increases to the full price of \$150.

To register, contact Louise Lawter at louise.lawter@gmail.com or (215) 428-1475.

#### About the Course:

Facilitator: Judith Jankowski, Assistant Director, Innovation and Collaboration at the American Chemical Society.

Description: The advancements in chemically based products, technology, and science are happening at the speed of light. Every individual and organization is required to continually improve, generate new ideas, and develop advanced systems. To meet these expectations means knowing how to tap into our creativity and challenge existing approaches. Yet, it is not easy to change perspectives and break free to create something new.

In this four-hour interactive course you will learn that innovation doesn't happen by chance, but can be managed. The understanding and tools you acquire will help you learn about your own, and others, innovation style. You will learn:

- The barriers to innovation and how to manage them
- The different ways in which people are innovative.
- Four approaches to generating ideas.
- How to stimulate innovative thinking, challenge traditional approaches and encourage diverse perspectives.

#### Who Should Attend This Workshop?

This workshop is valuable to everyone who needs to increase their innovative thinking, ideas, and approaches to move a project or team forward. This is valuable in your professional, school, or volunteer role both to use personally and as a leader responsible for helping teams make changes and create new ideas.

#### DIRECTORY OF SERVICES

# 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

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- www.mboservices.net
- Philadelphia.sites.acs.org/ Employment.htm

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Contact the Section Office at PhilACS@aol.com or (215) 382-1589.

Put "Volunteer" in the subject line or leave a message including contact information.



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# PHILADELPHIA SECTION, ACS 2014 CURRENT CALENDAR OF ACTIVITIES

		CALENDAR OF ACTIVITIES
Date	Event	Locations
Friday, Oct. 3	First Friday: Can It! Canning	Chemical Heritage Foundation
	Demonstration by Marisa McClellan	Philadelphia, PA
	Demonstration by Marisa McCichan	
		http://www.chemheritage.org/visit/events/public-events/2014-10-03-ff.aspx
Tuesday, Oct. 7	ACS Webinar: Speaking Simply –	Drexel University
	Communicating Your Science	Philadelphia, PA (see page 162)
Wednesday, Oct. 8	Chemical Consultants Network: John	The Cynwyd Club
<i>3</i> /	J. Brennan: Chemical Weapons (In-	Bala Cynwyd, PA
	cluding Consulting Opportunities for	www.chemconsultants.org
		www.chemeonsuitants.org
	Destruction, Neutralization, Conver-	
	sion)	
Friday, Oct. 10	American Institute of Chemical Engi-	Yards Brewing Company
	neers: Oktoberfest	Philadelphia, PA
		http://aiche-philadelphia.org/
Monday, Oct. 13	Delaware Valley Mass Spectrometry	Mendel Hall, Villanova University
1.1011443, 300. 12	Discussion Group: David Perlman,	Villanova, PA
	Princeton University: Fundamentals	http://science.widener.edu/svb/msdg/
	and Applications of Orbitrap Mass	
	Analyzers	
Thursday, Oct. 16	Joseph Priestley Society: Steven B.	Chemical Heritage Foundation
	Abramson, Universal Display Corpo-	315 Chestnut Street
	ration: How Many Years Does it Take	Philadelphia, PA
	to Become an Overnight Sensation?	www.chemheritage.org
	The Story of UDC	www.chemiertage.org
TT 1 0 / 16		D + A CO + A
Thursday, Oct. 16	Philadelphia Section Award: Dr.	Department of Chemistry
	Feng Gai, University of Pennsylva-	University of Pennsylvania
	nia: Protein Folding and Functional	Philadelphia, PA (see page 146)
	Dynamics	
Saturday, Oct. 18	Activities for Community Education	University of Pennsylvania
,,	in Science (ACES) for grades 3-9	Philadelphia, PA
	in science (Field) for grades 3 y	https://secure.jotform.us/kfvangelder/aces-oct-2014
Oct. 19 – 25	NATIONAL CHEMICTRY WEEK	
Oct. 19 – 25	NATIONAL CHEMISTRY WEEK	All Over the Delaware Valley
Wednesday, Oct. 22	Axalta Lecture: Omar Yaghi, Univer-	Chemistry Building
	sity of California, Berkeley: Reticular	University of Pennsylvania
	Chemistry and the Design of New	Philadelphia, PA
	Materials	https://www.chem.upenn.edu/event/2014/10/axalta-lecture-omar-yaghi-berkeley
T 1 0 : 20		
Tuesday, Oct. 28	Chromatography Forum of the Dela-	D'Ignazio's Towne House
	ware Valley: Mary Wirth, Purdue	Media, PA
	University: Protein UHPLC with	http://www.cfdv.org/
	Sub-um Particles	
Thursday, Oct. 30	Philadelphia Organic Chemists Club:	Chemistry Building, University of Pennsylvania
	Tobias Ritter, Harvard University:	Philadelphia, PA
		1 * '
	Late-Stage Fluorination for PET Im-	http://www.pocclub.org/
m 1 37 '	aging	
Tuesday, Nov. 4	Younger Chemists Committee:	Landmark Americana Tap & Grill
	Quizzo for Everyone	Philadelphia, PA (see page 152)
Wednesday, Nov. 5	Free Mid-Atlantic LRIG Fall Sympo-	Holiday Inn Somerset
• *	sium	Somerset, NJ
		http://my.lrig.org/LRIGChapterMidAtlantic/RecentCommunityEventsDashboard
Saturday, Nov. 8	PAGES <sup>TM</sup> Program for Sixth Grade	Chestnut Hill College
Saturday, 1907. 0	_	
	Girls	Philadelphia, PA
		http://www.pagesprogram.org/
Wednesday, Nov. 12	Ullyot Lecture: Dr. George White-	Chemical Heritage Foundation
	sides, Harvard University	Philadelphia, PA
Saturday, Nov. 15	Career Workshop on Non-research	Temple University
•	Careers for Bachelor and Masters	Philadelphia, PA
	Level Chemists	https://acsphilly-bsms-careerworkshop.eventbrite.com
Nov. 17-19	Eastern Analytical Symposium and	Somerset, NJ
INUV. 17-17		
	Exposition	http://www.eas.org/