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May 2009

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McCall Golf and Country Club

May Speaker

Dr. Susan Jansen Varnum

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the Catalyst

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ADVANCE NOTICE

JUNE MEETING

50-YEAR RECOGNITION LUNCHEON

Speaker and Location to be Announced

Thursday, June 18, 2009

See the June *Catalyst* for details,
call the Section Office at 215-382-1589, or email: PhilaACS@aol.com

From The Chair

Robert A. Gates



Each day the evening news seems to have more and more bad news about job reductions and layoffs in a variety of companies. Those of us in the sciences are not immune to these painful realities and ACS members are feeling the belt-tightening economy. ACS is stepping up to the plate and offering services to help dislocated members obtain training and new positions. I have just returned from the National Meeting in Salt Lake City where I attended presentations on the services and benefits currently offered and being implemented in the fall. All of these services can be found at www.acs.org/careers.

Some of the benefits and services being offered for unemployed members are:

- ACS dues may be waived for up to two years for members in good standing seeking employment.
- ACS National Meeting registration is free so that members can interview with potential employers at the ACS Career fairs held at these meetings.
- ACS regional meeting registration is cut to \$25, a major reduction.
- Purchase one ACS Harvard Online Business Course or ACS Leadership Development System Online Course for \$25 and get three courses free.
- ACS ProSpectives and Short Courses are discounted 50%.
- ACS members with ACS life insurance policies may defer premium payments while they are unemployed.
- ACS Network, Salary Comparator and Career Consultants are free online to allow members to contact potential employers and other colleagues, compare salaries, and get help from pros with resume preparation, interview techniques, salary negotiation, job search strategies, career transitions and

more. These services are designed to help you hone your resume for effectiveness and boost the number of interviews you get from interested employers.

- In the fall, there will be a new video technology available where you can record a practice interview using a web cam and then receive feedback from friends, colleagues and ACS Career Consultants. Also in the fall, there will be speaker series on industry trends and webinars focused on maximizing job search skills.

ACS is there to help and it is my deepest wish that our unemployed members use these and other career services to their fullest to help weather this hopefully short economic downswing and obtain fruitful employment in the near future.

PROJECT SEED FOR DEBORAH KILMARTIN

The Philadelphia Section would like to fund a Project SEED Endowed Student Stipend as a memorial to Deborah Kilmartin. Any gift made to **Project SEED Endowment** and earmarked as a memorial to her can be included. If we do not reach the goal of \$50,000, any funds contributed will still be used by Project SEED in her memory.

To make your gift online, go to www.acs.org/giving, click on Project SEED, then scroll down to Dedicate this Gift to Someone Special and enter Deb's name. If you prefer to write a check, you must enclose a note or write on your check that the gift is for Project SEED in memory of Deborah Kilmartin and make it payable to the American Chemical Society.

If you are planning to make a gift with your dues payment under "voluntary contribution," be sure to label it for Project SEED in Deb's memory. If you have already made a voluntary contribution, you may notify ACS that you would like it used for Project SEED in Deb's memory.

Members who are 70 ½ or older may make their gift directly from their IRA; see www.acs.org/giftplanning.

NEWS ATOMS

Dr. Catherine T. (Katie) Hunt, past president of ACS and current leader for technology partnerships at Rohm and Haas, received the outstanding alumna award from the University of California at Davis for her achievements in promoting innovative change and making professional contributions to the community and to UC Davis.

Former Philadelphia Section member **Mary Virginia Orna** was honored by ACS at the National Meeting in Salt Lake City with the award for volunteer service to the ACS. She was recognized for her unstinting service to the Divisions of Chemical Education and the History of Chemistry as well as to her students, colleagues, the community and the society itself.

DEATHS

Edward Roderick White, former pharmaceutical researcher with GlaxoSmithKline, December 5, 2008 at 77. He worked in the firm's analytical and physical chemistry departments and authored or co-authored several papers on analytical methods. White was a 50-year member of ACS.

Howard I. Sinnamon, former engineer with USDA, March 10, 2009 at 88. He and his twin brother served as navigators aboard B17s in Europe during WW II. Following work as a research engineer for the Sugar Research Foundation, he joined the Eastern Regional Research Laboratory in Wyndmoor in 1950. There he was employed as a research engineer, project engineer, and research leader, retiring in 1980.

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CHEMICAL CONSULTANTS NETWORK

Visit our *NEW* web page at www.chemconsultants.org

Date and Time: May 13th, at the Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM.

Speaker and Topic: Walt Johnson—*Consulting in a Changing Economy: Startup Through Growth.*

Abstract: Rapid changes in the economy and technology increase the need for consultants with special abilities. How does a new consultant begin? Do you have what it takes? How can experienced consultants improve their process? What are clients looking for? How do consultants identify and address client needs? This presentation provides answers, basic strategies and client rules.

Biography: Walt Johnson has provided consulting/engineering services for more than 35 years, 30 of them as President of Precision Systems Inc., a successful consulting firm. PSI clients include small startups through Fortune 100 companies in: semiconductors, communications, pharmaceuticals, medical devices, manufacturing, steam and nuclear power, process control and government/military. Walt has worked on hundreds of projects. He has a BS in Technical Management - Engineering.

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

Reservations: To make or cancel a dinner reservation, 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 and sodas), is \$25 by the deadline, Thursday, May 7th; \$35 afterwards. Late reservations and walk-ins subject to availability. No-shows will be invoiced. Dietary restrictions accommodated on a limited basis. There is no charge for talk only; registration is suggested using contact information above.

**608th BOARD OF DIRECTORS
MEETING**

Thursday, February 19, 2009

**Simon Pearce Restaurant
West Chester, PA 19382**

This is the edited version of the minutes. A full copy of the minutes can be obtained from the Section Office.

Present: E. Davis, C.J. Bruner, D. Cichowicz, M. Cichowicz, D. Cook, A. DeMasi, T. Dent, R. Gates, J. Summers-Gates, M. Matthews, C. Petucci, K. Thrush Shaginaw, S. Miller, W. Smith, T. Straub, D. Thomas, J. Tierney, V. Tortorelli, K. Yoder.

Excused: R. Ewing

Also Present: L. Harper, J. Crawford, G. Cowperthwaite, H. Whalen, D. Hausner.

The meeting was called to order at 4:15 PM per R. Gates. The minutes for the January meeting were approved unanimously.

COMMITTEE REPORTS:

Finance, Budget and Audit: G. Cowperthwaite began by indicating that the error causing the discrepancy in the publications amount in the budget (noted at the January meeting) had been found and corrected. He handed out a 12-year history of the Philadelphia Section's budget items. Income was consistent; however, expenses have been variable from one year to the next. George proposed that the Board consider reallocating accounts in order to achieve some degree of consistency in the budgeting process. Awards money needs to be placed in a separate account and an entirely new category for awards and grants needs to be created. After lengthy discussion, a vote was called to approve the budget as it stands. The ayes won.

Women Chemists Committee: K. Thrush Shaginaw announced that S. Burcham's friend checked the availability of a new name to replace the Expanding Your Horizons program. It will now be called P.A.G.E.S. (Philadelphia Area Girls Enjoying Science). It is a non-registered trademark and will be used at the next meeting on April 4, 2009 at Chestnut Hill College. Girls get into the program by a referral from a teacher and it is free. Typically, many students have to be

turned away. The program covers the Greater Philadelphia geographic area.

OFFICERS' REPORTS:

Chair: R. Gates announced Dr. Catherine T. (Katie) Hunt would be the speaker at the April Meeting at Drexel, and she will be discussing 'green chemistry.'

He continued by asking if we had an e-mail list where an e-mail blast could be sent concerning a Delaware Section 'Jobs Fair,' as *the Catalyst* would be too late for the announcement. Discussion ensued about how the local section could do an e-mail blast independent of National. Considerable concern was expressed that people who have already indicated that they want to opt out of receiving local section e-mail might end up on the list (approximately 10% or about 500 people).

The subject of student travel requests was then addressed. A motion was made to approve an allocation to students requesting funds from Holy Family and Villanova, respectively. The motion was approved unanimously. This leaves \$200 for potential disbursement for the meeting in Washington DC.

Chair Gates also received a letter from a chemist who is presently incarcerated and is seeking employment.

Finally, Chair Gates requested names for potential speakers at upcoming meetings.

Chair-Elect: J. Summers-Gates introduced a flyer about a program called the NanoExpress from Howard University. Discussion ensued about inviting them for a presentation at a P.A.G.E.S. event. Interest was also expressed about inviting them to a NOBCCHE meeting. J. Summers-Gates will send out an e-mail with the NanoExpress flyer.

Secretary (J. Tierney): No report.

Treasurer: C.J. Bruner reported that the problems with the January report had been corrected. The Section has \$4,067.92 on hand, as of the end of January. Taxes have been paid; other funds have not been disbursed until money arrives from National. To those not yet paid, C.J. requested patience. There has been no 'draw down' on reserves.

Continued on page 72

MAY MEETING

The Philadelphia Section,
American Chemical Society

presents

DR. SUSAN JANSEN VARNUM
Department of Chemistry

Temple University

*A Quantitative Method to Examine Biomarkers of
Inflammation Applied to Disease and Injury*

and

Presentation of Philadelphia Section Teaching Awards

Thursday, May 21, 2009

7:00 PM

Fireplace Room
McCall Meeting and Conference Center
201 North Lynn Boulevard
Highland Park, PA

Dinner at 6:00 PM in the Fireplace Room

Dinner cost \$27; Students with reservations and ID: \$14

RESERVATIONS should be made by calling Mrs. Libby Harper at the Section office, 215-382-1589, or emailing PhilaACS@aol.com by **5:00 PM** on **Thursday, May 14th**. **Cancellations**, if necessary, cannot be accepted after **NOON** on **Tuesday, May 19th**. **UNCANCELLED RESERVATIONS WILL BE BILLED.**

DIRECTIONS: www.mccallgolf.com/page.asp?page=directions

The Board of Directors will meet at 4:00 PM in the Fireplace Room.

SPEAKER'S ABSTRACT

Dr. Susan Jansen Varnum

***A Quantitative Method to Examine
Biomarkers of Inflammation Applied to
Disease and Injury***

**Department of Chemistry
Temple University**

Inflammation is implicated in injury from hypertensive illness, ischemic heart injury and atherosclerosis. In traumatic brain injury, poorly regulated inflammatory processes lead to greater loss of neurological function. Hypertensive illness may lead to left ventricular hypertrophy and the development of fibrous tissue in the heart itself. High levels of blood glucose and inflammation leads to atherosclerosis and rupture of the blood vessel. Ischemic injury induces the release of reactive oxygen species. All of these events involve and/or implicate a cascade of inflammatory events.

Therefore, a mechanistic understanding of the inflammation process as it relates to the disease state and injury needs to be developed. Specifically, the role and modulation of inflammation needs to be assessed as well as the mechanism which produces oxidation of arachidonic and linoleic acids. Gender and age also affect the level and nature of the inflammatory process. Eicosanoids are specific biomarkers for inflammation. Their biosynthesis from arachidonic acid, also commonly referred to as eicosatetraenoic acid, and related fatty acid molecules can be catalyzed by lipoxygenases (LOX), COX-2 or P450 enzymes. Depending on the mechanism/pathway or parent molecule, different distributions of eicosanoids are found. The oxidation of arachidonic acid gives hydroxy eicosatetraenoic acids, HETEs, dihydroxy eicosatetraenoic acids, epoxy eicosatetraenoic acids and prostaglandins, PG. Thromboxanes TX₂ are derived from arachidonic acid as well. Thromboxanes are derived from specific PGs, TXA₁ and TXA₂ are derived from PGH₂ and PGG₂. These eicosanoids are produced in platelets by thromboxane synthetase, which is produced from the endoperoxides

by the cyclooxygenase (COX) enzyme from arachidonic acid. Thromboxane is a vasoconstrictor and facilitates the clumping of platelets. Leukotrienes, also derived from arachidonic acid oxidation, are derived from 15-hydroperoxyeicosatetraenoic acid which is quickly stabilized to 15-HETE. It is our hypothesis that a profile of HETEs, DiHETEs, EETs, PGs and TXs will provide an understanding of disease progression and can report on intervention strategies in treatment for cardiovascular disease (CVD) and brain injury.

Quantitative LC/MS methods have been applied to determine the levels of over 30 eicosanoids in biological samples. Sensitive and validated extraction methods have been developed for all cardiac tissue, liver, kidney and brain. Our current LC/MS method has yielded validated, quantitative information for over 30 eicosanoids produced and implicated in brain injury and cardiovascular disease.

Continued from page 70

The January and February Treasurer's Reports were approved unanimously.

OTHER BUSINESS:

E. Davis asked if any action had occurred with the bylaw review. However, D. Cichowicz was unable to reply because he had left the room.

A. DeMasi reported that there was a Council Affairs Committee meeting on March 9th. Attendance at the Council meeting in Salt Lake City is important because Cheryl Martin is running for President of ACS National and a show of support for her would be highly beneficial.

There being no other business the meeting was adjourned at 5:15 PM.

Respectfully submitted by

John Tierney
Secretary

17TH BIENNIAL PHILADELPHIA ORGANIC CHEMISTS CLUB (POCC) DAY

THURSDAY, MAY 14, 2009

POSTER SESSION, AWARD PRESENTATION AND
DINNER

Afternoon Poster Session
Cocktail Hour and Dinner

POCC Industrial Award Lecture
Christopher J. Dinsmore, Merck Research Laboratories

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Ella L. Davis, Immediate Past Chair, and Dr. Christopher Murray, University of Pennsylvania Department of Chemistry, presenting the scroll to Dr. Paul Alivisatos (center) at the Edgar Fahs Smith Memorial Lecture.

**May Historical Events In Chemistry
by Leopold May
The Catholic University of America
Washington, DC 20064**

May 4, 1876	Arthur A. Blanchard, a researcher on metal carbonyls and other inorganic compounds, was born on this day.
May 7, 1909	One hundred years ago, Edwin H. Land was born on this date. He developed a light polarizing material called Polaroid, color photography system, Polaroid Land camera, and founded the Polaroid Corporation.
May 8, 1855	Bohuslav Brauner, who was a researcher in the chemistry of tellurium and the rare earths, predicted the existence of element No. 61 [Pm], was born on this date.
May 10, 1850	Edward Weston, who was born on this date, improved nickel plating.
May 13, 1857	Ronald Ross, who discovered that malaria was transmitted by the <i>Anopheles</i> mosquito, was born on this date. He was awarded the Nobel Prize in Physiology or Medicine in 1920 for his work on malaria.
May 15, 1859	One hundred and fifty years ago, Pierre Curie was born on this date. He discovered the phenomenon of piezoelectricity. He and his wife, Marie Curie, codiscovered polonium and radium and in 1902, they shared the Nobel Prize in Physics.
May 18, 1897	Dow Chemical Co., was incorporated on this date.
May 21, 1860	Eduard Büchner discovered alcoholic fermentation without yeast cells in 1896 and zymase in 1897. In 1907, he was awarded the Nobel Prize in Chemistry for his biochemical research and his discovery of cell-free fermentation. He was born on this date.
May 23, 1908	John Bardeen shared the Nobel Prize in Physics with William Bradford Shockley and Walter Houser Brattain in 1956 for their research on semiconductors and their discovery of the transistor effect and with Leon N. Cooper and Robert Schrieffer in 1972 for their jointly developed theory of superconductivity, usually called the BCS-theory.
May 26, 1904	John C. Bailar, Jr., born on this day, discovered optical inversion and explained stereospecificity in complex inorganic reactions.
May 27, 1909	One hundred and fifty years ago, Mary Fieser was born. She and her husband Louis collaborated on the investigation of the chemistry of quinones and steroids. They developed synthetic procedures for the preparation of Vitamin K, cortisone, and the antimalarial compound lapinone. In 1944, they published the textbook, <i>Organic Chemistry</i> . She was awarded the Garvan Medal in 1971. She died on March 22, 1997 in Belmont, MA.
May 30, 1898	William Ramsay and Morris W. Travers discovered krypton on this day.

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm> or the "This Week in Chemical History" at the ACS website: <http://www.acs.org/whatischemistry>.

Delaware Valley Enzymology Club May Meeting

Speaker: Dr. Smita Patel

Affiliation: The University of Medicine and Dentistry of New Jersey/Rutgers University

Title of presentation: *How two molecular motors—the helicase and DNA polymerase—coordinate their enzymatic activities to catalyze DNA replication*

Date: May 14, 2009, 6 - 9 PM

Location: Desi Village Restaurant
145 South Gulph Road
King of Prussia, PA 19046
Phone: (610) 265-8500
[http: www.desi-village.com](http://www.desi-village.com)

Contact: archie.argyrou@bms.com

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FROM THE SPRING ACS COUNCIL MEETING

Anne DeMasi and Tony Addison

Council met on March 25th in Salt Lake City. An important activity of interest to the Philadelphia Section was the selection (from a field of four) of two candidates for 2010 ACS President-Elect. Of particular note is that one of these is Dr. Cheryl Martin (Rohm and Haas Company), a former Chair of the Philadelphia Section, a former member of its Board of Directors, and a current Councilor. Congratulations, Cheryl!

The Society's finances remain in the black, with a 3% increase in revenues over 2007's. However, the historic collapse in the capital markets resulted in a sharp decline in the Society's year-end unrestricted net assets from \$212M (Dec. 2007) to \$60M (Dec. 2008). This arose from investment losses and also the associated need to transfer assets to the employee pension fund. Action was taken in 2007 to close the Defined Benefit Pension Plan, and transfer ACS employees to a Defined Contribution style plan. It should be noted that these declines are unrealized losses, the outcome of which will depend on the future value of the assets at their time of any needed sale; also, the Society remains highly liquid with more than \$275M in cash and investments, and limited debt of \$30M. Nonetheless, current economic conditions have prevented the Society from meeting certain fiscal goals.

After a lengthy and spirited discussion and rejection of two amendments, the Council voted (348 to 70) to set the member dues for 2010 at the fully-escalated rate of \$145. This rate is established via an inflation-adjustment formula in the ACS Constitution and Bylaws. The Society's membership (now ca. 154,000) has decreased about 3% since 2007. Part of this change is due to a reassessment of the status of >2,500 emeritus members, several of whom were recorded as being born prior to the Taft Administration. ACS is by no means the only professional society to have lost membership in 2008, and we apparently fared better than many others.

The Council received for consideration a Petition on Election Timelines, which presents refinements to the current election procedures. Action is expected on the petition at the fall Council meeting in Washington DC.

Council approved revised (from the 2004 version) Professional Employment Guidelines; these offer recommended practices both for professional scientists and for their employers.

One of us is now associated with the Society's Committee on Meetings & Expositions (M&E). The dates and locations of the next 21 National Meetings have now been decided through 2019. Philadelphia serves as the venue for Fall 2012 and Fall 2016. We have pointed out to M&E some of the advantages of holding the as yet unassigned Spring 2020 meeting in Philly! A more complete listing of the future meetings can be found on the Section's website.



Philadelphia Section Councilors with past ACS Presidents C. Hunt and B. Bursten at the Spring ACS Meeting. L to R: S. Haynie, H. Whalen, J. Currano, C. Martin, A. Addison, J. Cohen, C. Hunt, B. Bursten, C.J. Bruner.

BOOK REVIEWS

Alan Warren

Catalysis for Renewables, ed. by Gabriele Centi and Rutger A. van Santen. 448 pages, 7 by 9 3/4 inches, case bound, Wiley VCH Verlag, Weinheim, Germany, 2007. ISBN 978-3-527-31788-2, \$190 from J. Wiley, 111 River St., Hoboken NJ 07030.

The rising cost of fossil fuels and their environmental impact underscore the increasing need for renewable resources in chemical manufacturing. Over 40 specialists contributed to the book. Early chapters deal with lignocellulose conversion, catalytic conversion of renewables into bioproducts, industrial development and application of biobased oleochemicals, and fine chemicals from renewables. Other topics include thermochemical conversion of biomass into fuels, bioethanol, conversion and catalytic transformation of glycerol, integrating biocatalysis and chemcatalysis, and solar photocatalysis.

The authors stress the importance of using biomass technology for energy conversion, while recognizing some of the processes are still slow to be developed. At the same time solar energy will play an increasingly important role to produce fuels and chemicals. The book provides a road map for catalysis for renewables. The technology is rapidly evolving and timelines are suggested for many different research areas in this field.

Concepts of Modern Catalysis and Kinetics, 2nd edition, edited by I. Chorkendorff and J. W. Niemants-verdriet. 478 pages, 7 by 9 3/4 inches, case bound, Wiley VCH Verlag, Weinheim, Germany, 2007. ISBN 978-3-527-31672-4, \$95 from J. Wiley, 111 River St., Hoboken, NJ 07030.

Both authors specialize in heterogeneous catalysis. The book is intended as an introduction to this topic with the first several chapters devoted to kinetics,

reaction rate theory, characterizing catalysts by instrumental methods, and describing the properties of solid catalysts. More chapters discuss surface reactivity, kinetics of reactions on surfaces, and heterogeneous catalysis in practice.

Concluding chapters focus on oil refining and petrochemistry, and environmental catalysis. The final section discusses the selective catalytic reduction (SCR) process to control atmospheric emissions.

A list of questions and suggested exercises help the reader to review each chapter, and underscore the learning and review of the text. Helpful appendices in table format provide useful constants, energy conversion factors, and some definitions.

Modern Supramolecular Chemistry ed. François Diedrich et al. 418 pages, 7 by 9 3/4 inches, casebound, Wiley-VCH Verlag, Weinheim, Germany, 2008. ISBN 978-3-527-31826-1, \$200 from John Wiley & Sons, 111 River St., Hoboken, NJ 07030.

Supramolecular chemistry can be described as a marriage between organic synthesis and physical organic chemistry. In recent years there has been a growing interest in the synthesis of molecules that mimic important biological processes. This book brings together the efforts in this emerging field to synthesize macrocycles.

Two dozen specialists reflect their expertise in 10 chapters. Some of the subjects covered in each chapter include bioactive cyclic peptides, macrocycles by ring-closure metathesis, supramolecular macrocycle synthesis by H-bonding assembly, synthetic chemistry of cucurbit[n]urils, synthesis of catenanes and rotaxanes, metal-directed assembly of synthetic macrocycles to generate molecular containers, and anion-binding macrocycles.

Each chapter concludes with experimental procedures to invite participation in this fascinating area of synthetic chemistry.

INTERESTED IN WORKING FOR ACS?

We are drawing up the slate of candidates for the fall 2009 election. Specifically, there are openings for chair-elect, secretary, directors, and councilors. The chair-elect has several responsibilities, including chairing the Section awards and program committees during the first year of the term and running the Section during the second year. The secretary is primarily responsible for taking the minutes at board meetings. Directors form the governance of the local Section and meet monthly September-June. Councilors represent the Section at ACS National Meetings.

If you would like to run, please get in touch with Ella Davis (ellaldavis@comcast.net or 610-279-4935) or Libby Harper (PhilaACS@aol.com or 215-382-1589).

YCC WEBSITE

The Philadelphia Section Younger Chemists Committee now has a website:

www.philaycc.org

At the time of our deadline it had pictures from the March 12th Edgar Fahs Smith Memorial Lecture with Dr. Paul Alivisatos.

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email Deb Kilmartin at
kilmartind@msn.com

or contact the Section Office at
philaacs@aol.com or
215-382-1589.

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

ELEMENTAL ANALYSIS

- ◆ C, H, N, O, S, P ◆ Halogens
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PHILADELPHIA SECTION, ACS 2009 CALENDAR OF EVENTS

DATE	EVENT	LOCATION
May 11	Delaware Valley Mass Spectrometry Discussion Group: Burnaby Munson, University of Delaware: <i>History of Mass Spectrometry</i> http://science.widener.edu/svb/msdg/	Villanova University Villanova, PA
May 13	Chemical Consultants Network with IEEE Consultants Network: Walt Johnson, Precision Systems: <i>Consulting in a Changing Economy: Startup Through Growth</i> www.chemconsultants.org	Cynwyd Club Bala Cynwyd, PA
May 14	Philadelphia Organic Chemists Club: POCC Day www.pocclub.org	University of Pennsylvania Philadelphia, PA
May 14	NJ Section: Symposium: <i>Polymers for Sensory and Energy-Related Application</i> http://njacs.org/ptg.html	Rutgers University Newark, NJ
May 14	Heritage Day www.chemheritage.org	Chemical Heritage Foundation Philadelphia, PA
May 14	Delaware Valley Enzymology Club: Smita Patel, University of Medicine and Dentistry/Rutgers: <i>How Two Molecular Motors—the Helicase and DNA Polymerase—Coordinate their Enzymatic Activities to Catalyze DNA Replication</i> archie.argyrou@bms.com	Desi Village Restaurant King of Prussia, PA
May 21	Teaching Awards Dr. Susan Jansen Varnum, Temple University: A Quantitative Method to Examine Biomarkers of Inflammation Applied to Disease and Injury	McCall Meeting and Conference Center Highland Park, PA
June 18	Fifty-Year Recognition Luncheon	TBA
July 22-25	Second International Workshop on Hyperpolarized Carbon-13 and its Applications in Metabolic Imaging Lori.Ehrich@uphs.upenn.edu	University of Pennsylvania Philadelphia, PA
Aug. 16-20	ACS Fall National Meeting	Washington, DC