Pittsburgh Section

The Crucible

http://membership.acs.org/P/Pitt

Volume: XCIII No.3 November 2007

Pittsburgh Section Wins Eighth Consecutive ChemLuminary Award

This past August, during the 234th American Chemical Society (ACS) National Meeting held in Boston, Massachusetts, the Pittsburgh Section was the recipient of an ACS ChemLuminary Award for its 2006 National Chemistry Week (NCW) program. The Section received an award in the "Outstanding Event for the Public using the Yearly Theme" category. Through partnerships with area professional societies, non-profit organizations, corporations and local businesses, universities and student affiliate chapters, secondary schools, and local media, the Pittsburgh Section was able to offer unique hands-on experiments, activities, and theater-style demonstrations that focused on the 2006 NCW theme "Your Home - It's All Built on Chemistry."

This was the Pittsburgh Section's eighth consecutive NCW related ChemLuminary award and twelfth award since the NCW program's inception in 1987. Previously, the Pittsburgh Section has been recognized for its NCW community outreach efforts by the ACS's Committee on Community Activities with ChemLuminary Awards in the following categories; "Greatest Increase in Membership Involvement" in 1999, "Greatest Community Involvement" in 2000 and 2004, "Outstandingly Creative and/or Unique Event" in 2001, "Best Event with Underrepresented Minority Groups" in 2002 and 2003, and "Outstanding Event for a Specific Audience" in 2005.

The Pittsburgh Section's 2006 National Chemistry Week (NCW) event was held at the Carnegie Science Center on Friday and Saturday, October 27-28, 2006. There were 278 volunteers from 29 groups and organizations, conducting hands-on experiments, activities, and demonstrations. There were also several theater-style shows presented in the various Science Center stages, including PPG Industries' demonstration titled "Reaction in Action." Total attendance for the two-day event was 3,655.

The Pittsburgh Section would like to thank its sponsors including the Bayer Corporation, the Carnegie Science Center, the Society For Analytical Chemists of Pittsburgh, and The Spectroscopy Society, for their generous and on-going support of the Section's NCW program. Thanks also go to the over 278 volunteers who participated in the 2006 NCW celebration. Without the support and commitment by the sponsors, the many dedicated volunteers, and the community, the Pittsburgh Section's annual NCW activities would not be possible.

Submitted by:
V. Michael Mautino
NCW Coordinator

Contents . . .

SPECTROSCOPY SOCIETY OF PITTSBURGH

November Meeting

Wednesday, November 14, 2007

Duquesne University, Mellon Hall of Science
(Laura Falk Hall)

6:00 PM - Social Hour, 6:30 PM - Dinner
(City View Cafe - 6th Floor)
8:15 PM - Technical Presentation

"When More is Truly Better....Direct Mixture Analysis Using NMR Spectroscopy and Multivariate Statistics to Characterize Complex Materials from Biofluids to Beverages"

István Pelczer, PhD
Princeton University

Mixture analysis and characterization can proceed using more conventional protocols using a variety of separation techniques followed by specific, component-oriented analytical measurements. A powerful alternative is to study the mixtures directly possibly in their native condition in an unbiased, untargeted fashion. One can apply quantitative analytical methods, such as nuclear magnetic resonance (NMR) spectroscopy, and use involved statistical tools to identify varying patterns for characterization. This approach can find correlations and distinguishing features between different samples, respectively, making immediate diagnostic classification possible. In addition, individual components and also more complex, correlated patterns of components which have significant contributions to the variance can also be assessed by this analysis.

This strategy has been implemented and has found extremely important applications in the rapidly growing field of metabolomics/metabonomics, studying all kinds of biofluids, cell extracts and tissues. This kind of analysis helps us to get a much deeper insight into systemic processes and regulations in the living organisms from cells to humans and understand better the fundamental biochemistry. In the same time, the very same protocol can be applied to all kinds of other characteristic mixtures, should it be an environmental sample to identify low-level consistent pollution, industrial samples, those of various foods or beverages for quality control and identifying vintage, place of origin, and many more.

This talk will introduce the conceptual process for direct mixture analysis and will present real-life examples, including those from our own research dealing with horses, malaria parasites, developing stem-cells, and also conducting "beer-omics"...

Bio
István Pelczer is a native of Hungary where he started his career as a chemist/NMR spectroscopist in Szeged. Later he moved to Budapest and contributed to pharmaceutical research in the same area, while in the meantime received his Ph.D. from Szeged. He was invited to visit the US, Syracuse, NY, in 1988 by George Levy, which invitation was extended later for a more steady position. In Syracuse he become a Research Assistant Professor while also working as an Application Scientist for NMRi, Inc., a software company designing multidimensional NMR processing and analysis tools, a cutting edge technology of that time. Dr. Pelczer moved to Princeton University, Department of Chemistry early in 1996 where he works since. Besides running the NMR facility as a Sr. NMR spectroscopist he has also become involved in teaching as a Lecturer. He runs a research program mainly focusing on metabolic mixture analysis in biofluids, cells, cell extracts, and various other materials, and has contributed to several proposals for departmental instrument acquisitions and on other topics. He has an extensive record of scientific activity and is author of nearly 100 peer reviewed publications.

Dinner Reservations: Please e-mail Carolyn Benga at crbssp@yahoo.com or call (412) 487-0915 to make dinner reservations NO LATER THAN FRIDAY, November 9, 2007. Dinner will cost $8 and checks can be made out to the SSP. If you have dietary restrictions, please let Carolyn know when you RSVP. **Parking Instructions:** The Duquesne University Parking Garage is located on Forbes Avenue. Upon entering the garage, receive parking ticket and drive to upper floors. Pick up a parking chit at the dinner or meeting. If any difficulties arise, contact Dr. Mitch Johnson at Duquesne University.

Society for Analytical Chemists of Pittsburgh

November Meeting

Monday, November 5, 2007

Duquesne University, Laura Falk Hall

"Enhancing the Biocompatibility and Analytical Performance of IN VIVO Electrochemical Sensors using Nitric Oxide Releasing/Generating Polymers"

Mark E. Meyerhoff, Ph.D.
Philip J. Elving Professor of Chemistry
Department of Chemistry
University of Michigan, Ann Arbor

Dinner - Student Union, City View Café (6th Floor) 6:30 P.M., Technical Presentation 8:00 P.M.

The analytical performance of intravascular electrochemical sensors capable of real-time monitoring blood gases and electrolytes in critically ill patients has been limited by problems associated with cell adhesion (platelets) and subsequent thrombus formation on the sensors' surfaces. A novel approach aimed at ultimately solving this fundamental biological response problem is based on fabricating intravascular chemical sensors with outer polymeric films that release/generate low levels of nitric oxide (NO). Such in situ release of NO prevents platelet adhesion/activation on the surface of the devices. Polymer formulations have been developed that provide appropriate rates of NO release required to prevent thrombus formation, without interfering with the sensors' electrochemical response. In vivo evaluation of intravascular oxygen sensors prepared with the NO release polymers confirm the enhanced thromboresistivity and concomitant improvement in analytical accuracy. For long term implanted sensors, catalytic polymer coatings capable of continuously generating locally elevated NO from components already in blood (e.g., nitrosothiols (RSNO)) may be useful. Such polymers can be prepared using immobilized Cu(II)-ligand complexes as catalytic sites for conversion of endogenous RSNO species to NO. The relative levels of reactive RSNO species in blood can be rapidly assessed by employing the same polymers as thin catalytic coatings on the surface of electrochemical NO sensors, to yield analytically useful RSNO sensors. Further, the prospects of employing NO release/generation to improve the performance of subcutaneous in vivo glucose sensors will be also be demonstrated. Indeed, needle type electrochemical glucose sensors prepared with NO release outer coatings have already been shown to exhibit greatly reduced inflammatory response when implanted subcutaneously in rats, without loss in analytical performance.

Bio:
Mark E. Meyerhoff is currently Philip J. Elving Professor of Chemistry in the Department of Chemistry at the University of Michigan, Ann Arbor. He received his Ph.D. from the State University of New York at Buffalo in 1979, working with Professor Garry A. Rechnitz. Following a short post-doctoral stint at the University of Delaware, he joined the faculty at Michigan as an Assistant Professor in the Fall of 1979. He was promoted to associate professor in 1985, and to full professor in 1990.

Professor Meyerhoff's primary research interests are in the field of analytical chemistry, particularly the development of new ion-, gas-, and bio-selective electrochemical sensors suitable for direct measurements of clinically important analytes in physiological samples. He also has a very active research program in the area of biomaterials, especially the development and characterization of novel nitric oxide (NO) releasing/generating polymeric materials for biomedical applications. He and his collaborators have authored more than 280 original research papers on these and other topics over the past 28 years.

Professor Meyerhoff received the University of Michigan's Faculty Recognition Award in 1990, was elected as a Fellow by the National Academy of Clinical Biochemistry in 2002, received the ACS-Division of Analytical Chemistry Award in Electrochemistry in 2003, and the Society for Electroanalytical Chemistry's Reilley Award in 2006. He currently serves on the editorial/advisory boards of Clinical Chemistry, Electroanalysis, Analytica Chimica Act, and Applied Biochemistry and Biotechnology. He is also active as a consultant and/or is on the Scientific Advisory Boards of several biomedical companies.

Dinner Reservations: Please email Larry Senor, Arrangements Co-Chair at senor@pittcon.org, by Thursday, November 1, 2007 to make dinner reservations. Should you not have email, please call Larry at 724-327-4428. Dinner will cost $8 ($4 for students) and checks can to be made out to the SACP. If you have any dietary restrictions, please let Larry know when you leave message.

Parking: Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage receive parking ticket and drive to upper floors. Pick up a parking sticker at the dinner or meeting. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.

2008 CANDIDATES FOR OFFICE

Pittsburgh Section
American Chemical Society

The 2007 Nominating Committee of the Pittsburgh Section of the American Chemical Society submits the following slate of candidates for Section office for 2008. All persons nominated are members of the society and have agreed to serve if elected.

Only members of the Pittsburgh section of the American Chemical Society are eligible to vote. Please note that all ballots must be received by Pittsburgh Section Secretary, Mary Anne Alvin, by November 21, 2007. Please follow instructions printed on the ballot. Ballots received in any other manner than what is stated in the instructions will not be accepted.

Chair

Fu-Tyan Lin
Brian Strohmeier

Fu-Tyan Lin

Fu-Tyan received his bachelor degree in 1962 in Physics and Teaching from the National Taiwan Normal University, Taipei, Taiwan. He enjoyed seven years of teaching in high schools and colleges in Taiwan. He came to the United States for graduate study in 1969. Fu-Tyan received his MS in Physics in 1971 and Ph.D. in Polymer Science in 1979 from the University of Akron, Akron, OH. During his graduate study, he worked as a technician for the Physics Department and as an NMR Spectroscopist for the Institute of Polymer Science. He was the Chemistry Instrumentation Manager at the University of Louisville, Louisville, KY in 1978-1980. He was the Director of the NMR Lab and a Research Assistant Professor in the Chemistry Department at the University of Pittsburgh from 1980 and a Research Associate Professor in 1986. He retired from the University of Pittsburgh in 2005. He is currently working for LIST NMR, an NMR services and consulting lab founded by him in 2005. His current research interest is the separation and characterization of nature products. He authored and co-authored more than sixty papers and presented more than twelve papers at academic institutes and conferences. In October, 2005, he gave one plenary lecture for Beijing Conference and Exhibition on Instrumental Analysis (BCEIA) in Beijing, China.

Fu-Tyan was Chairman of the Spectroscopy Society of Pittsburgh (SSP) 2003-2004 being an active member since 1982. He is a member of the Society for Analytical Chemists of Pittsburgh (SACP) and became a committee member for the Pittsburgh Conference (PITTCON) in 1993. He was President of The Monte Jade Science and Technology Association, Pittsburgh Chapter, in 1999. He is a 31 year member of the American Chemical Society (ACS). He served as Chairman for Pittsburgh ACS Polymer Group in 1985-1986.

Fu-Tyan enjoys cooking, classical music and reading.

Brian R. Strohmeier

Dr. Brian R. Strohmeier is the Corporate Laboratory Operations Manager at RJ Lee Group, Inc., a materials characterization and consulting company located in Monroeville, PA. He was previously employed in various research and managerial leadership positions at ION-TOF USA, Inc., the University of Pittsburgh Chemistry Department, PPG Glass Technology Center, and Alcoa Technical Center. Brian holds a Ph.D. degree in Analytical Chemistry from the University of Pittsburgh (1984) and an M.A. degree in Business Leadership from Duquesne University (1999). His scientific research interests involve applications of surface analytical techniques, such as X-ray photoelectron spectroscopy (XPS or ESCA), Auger electron spectroscopy (AES), secondary ion mass spectrometry (SIMS), and scanning electron microscopy/energy dispersive X-ray spectroscopy (SEM/EDS), for industrial problem solving, product/process development, and the characterization of complex materials. He is the co-inventor of one patent and the author/co-author of more than 45 publications and 43 conference presentations (15 invited) involving various surface characterization and scientific leadership topics.

Brian has been a member of the ACS since 1977 and previously served as Chairman of the Pittsburgh Section ACS in 2001 and as a Section Councilor in 2004. He has been a member of the Society for Analytical Chemists of Pittsburgh (SACP) and the Spectroscopy Society of Pittsburgh (SSP) since 1980 and he has chaired or served on many Committees in both societies. Brian served on the PITTCON Organizing Committee from 1991-2005 and was the Chair of the Audio-Visual (1996), Publicity (1998), Activities (2000), and Program (2004) Committees. He is currently a National ACS Tour Speaker on the topic: "The Chemistry of Leadership." He has also been a short course instructor at past National ACS and PITTCON meetings on the topic: "Leadership Principles for R&D Managers and Scientists." If elected to another term as Chairman, Brian's primary goal would be to work with local universities, companies, and other societies to promote member and student participation and interaction in Society activities.

Chair-Elect

Nick Tsarevsky

Nick Tsarevsky

Nicolay (Nick) Tsarevsky was born in Sofia, Bulgaria, in 1976. In 1994, he won a bronze medal at the National Chemistry Olympiad for high school students and participated in the 26th International Chemistry Olympiad in Oslo, Norway. He was then admitted to the Department of Chemistry at the University of Sofia, and obtained his M.S. in theoretical chemistry and chemical physics, maxima cum laude, in 1999. His studies were on the use of hypervalent iodine compounds as polymerization initiators. He was the recipient of the "Talents" Scholarship of the Eureka Foundation (1994-99), the University of Sofia Rector's Prize for most accomplished student (1996), and the A. Wessels award (1998). He joined Professor Matyjaszewski's group at Carnegie Mellon University as a Ph.D. student in 2000, and obtained his doctorate in 2005. He worked on the synthesis of functional polymers by ATRP and on development of rules for

Bios Continued on Page 8

BALLOT

For Offices of the

2008

Pittsburgh Section, American Chemical Society

Chair

(Vote for One)

Fu-Tyan Lin ..... ❒

Brian Strohmeier ..... ❒

Chair-Elect

(Vote for One)

Nick Tsarevsky ..... ❒

Secretary-Elect

(Vote for One)

Joseph Jolson ..... ❒

Treasurer-Elect

Simion Coca ..... ❒

Director

(Vote for one)

Mildred (Mille) Perry ..... ❒

Councilor

(Vote for two)

Mark Bier ..... ❒

Michelle Blanken ..... ❒

James Manner ..... ❒

Almudena Prudencio ..... ❒

INSTRUCTIONS

Ballot must be placed and sealed in the enclosed blank envelope. Do not write on the blank envelope. Place the blank envelope in the enclosed printed envelope which is addressed to Pittsburgh Section Secretary, Mary Anne Alvin. **Print your return address in the upper left hand corner and sign your name on the line provided. Ballots received in any other manner will be disqualified.**

Only members of the Pittsburgh section of the American Chemical Society are eligible to vote. All ballots must be received by the Secretary of the Pittsburgh Section by November 21, 2007.

W.P.T.A.G

Western Pennsylvania Technician Affiliate Group
and

EAT. DRINK. TALK SCIENCE.
Café Scientifique Pittsburgh

Proudly Present

"Nanotechnology in Everyday Life"

Alan G. Brown, Ph.D., MBA
Executive Director
Pennsylvania NanoMaterials Commercialization Center

Date: Monday, December 3, 2007
Time: 7:00 p.m.
Location: Penn Brewery
800 Vinial Street
Pittsburgh, PA 15212

Abstract

Dr. Brown will discuss the meaning of the term "nanotechnology" and how it affects our everyday lives. The discussion will use as examples existing products already in the marketplace which use nanotechnology, and how nanotechnology improves or adds new features to those products. Dr. Brown will also provide his personal views on how nanotechnology may affect us all in the coming decades.

The Café is a place where anyone interested in science can get together in an informal setting to discuss major science issues with the help of an expert in the field. It is free and open to the public.

For more information visit: www.cafescipgh.org

In Memory of Virginia W. Fisher

Virginia W. Fisher passed away on September 29, 2007 at the age of 98.

Fisher, graduated from West Virginia Wesleyan University in three years and was a respected chemistry teacher in West Virginia and Pittsburgh. She earned her master's degree from the University of Pittsburgh and published several scientific articles and authored a book about Dr. Nicholas Hyma, one of Wesleyan's most distinguished science professors and an inspiration to Fisher.

In1934, Virginia, who spent her entire career in teaching, founded the West Virginia Junior Academy of Science. In 1978, she founded the Pittsburgh Chemistry Olympics and served as its chair for many years. Both events still attract many high school students across the region. In 1997, she received the prestigious Pittsburgh Award from the Pittsburgh Section of the American Chemical Society for her outstanding service to chemistry.

Fisher recruited over 500 students to Wesleyan, most of whom have graduated, providing a lasting legacy for her alma mater. She received the Extra Mile Award, the highest alumni award, from West Virginia Wesleyan College.

Virginia is best known for her lifelong dedication to science education. Her service to the science communities in the Pittsburgh area is deeply appreciated by the Pittsburgh Section.

Bios Continued From Page 4

rational selection of the catalyst for various reaction media. He was awarded the Kenneth G. Hancock Memorial Award in Green Chemistry (2003), the Excellence in Graduate Polymer Research Award (2004), the Pittsburgh Section of ACS Polymer Group Student Award (2004), as well as the Harrison Legacy Dissertation Fellowship (2004-5). He has authored and coauthored over 40 papers in peer-reviewed journals, 5 book chapters, and several patents. Research interests include polymerization techniques, functional materials, coordination chemistry and catalysis, and the chemistry hypervalent compounds. He is also interested in science education and has written 2 scripts for educational TV programs, shown on the National TV in Bulgaria, and 1 textbook for high school students. He was Visiting Assistant Professor at the Department of Chemistry at Carnegie Mellon University (2005-6), and is currently Associate Director of the CRP Consortium. He served as secretary (2005) and chair (2006) of the Polymer Group of the Pittsburgh Section of ACS.

Secretary-Elect
Joseph Jolson

Joseph Jolson

In 2004, Dr. Joseph D. Jolson founded Custom Client Solutions (CCS). CCS provides product development, product support, litigation, subrogation, and intellectual property services to clients in the battery, gas detection, and respiratory protection areas. More information on CCS can be found at www.customclientsolutions.net.

From 2000 - 2004, as technical director of CSE Corporation, Dr. Jolson oversaw the development of emergency-breathing devices & air quality monitors. Dr. Jolson improved product quality, solved manufacturing problems, and reduced costs; enabling CSE's sales to grow from $6.8 to $13 million/year.

From 1996 - 2000, as trace gas analysis marketing and applications laboratory manager of the Mine Safety Appliances Company, Inc., Dr. Jolson was responsible for business development and product management. He analyzed detection technologies for anesthetic agents, chemical warfare agents, explosives, illicit drugs, pesticides, and VOCs. He oversaw qualification testing and applications support for a $100 million/year division.

From 1989 - 1996, Dr. Jolson held several R&D management positions. His teams developed over a dozen commercially successful catalytic combustible and electrochemical gas sensors, and several prototype gas detection instruments. Dr. Jolson invented the lithium-silver oxide battery and commercialized improved lithium-iodine and thermally activated batteries. He developed an OSHA compliant laboratory safety program and MSDSs.

From 1985 - 1988, Dr. Jolson set up and operated a facility to produce specialty batteries for the U.S. Government. Dr. Jolson has ten U.S. Patents, 13 publications, and 21 presentations. He earned a Ph.D. in Analytical Chemistry from the State University of New York at Buffalo.

He became a member of the ACS - Pittsburgh Section professional relations committee in 2000. Since becoming committee chairperson, in 2004, he coordinated changes to the Job Searching for Chemical Professionals workshop that increased job seeker participation from 15 to 66.

Treasurer-Elect
Simion Coca

Simion Coca

Simion Coca is a research associate at PPG, Coating Innovation Center, Allison Park. He obtained a Ph.D. in Polymer Chemistry and Engineering at Polytechnic University of Bucharest (Romania). Simion moved to US in 1994 and spend one year as visiting scientist at University of Massachusetts in the Department of Chemistry and also spent two years as postdoctoral research associate at Carnegie Mellon University in the Department of Chemistry. His research interests include synthesis of polymer with controlled architecture and functionality for various automotive coating applications.

Director
Mildred (Mille) Perry

Mildred (Mille) Perry

Mille received her Ph.D. in Chemistry at the University of Tennessee (Knoxville) and a M.S. in Biology and B.S. in Chemistry at Austin Peay State University in Clarksville, Tennessee.

Mille has been employed at the National Energy Technology Laboratory (NETL), since she came to Pittsburgh in 1983 as a postdoctoral appointee. Her career began as a Research Chemist developing characterization methods, for the "Structural Definition of Synthetic Fuels" project in the Coal Science Division. She presently serves as Senior Analyst in the Strategic Center for Coal.

Mille is a Director of the ACS Pittsburgh Section, a former Chairman of National Chemistry Week, the ACS Coal Technology Group, the Pittsburgh Section ACS, the SSP, General Chairman of the ACS Central Regional Meeting (2003), and President of the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon 2003).

As Chair-elect/ Program Chairman of the Pittsburgh Section, Mille initiated the On-the-Road Program bringing programming and speakers to the broader membership of the Section at various academic and industry locations.

When Mille was Chairman, the Section hosted the International Chemistry Olympiad for the first time that it was ever convened in the United States, planned for a Retired Chemists Group that was chartered and later merged with the Pittsburgh Chemists Club, and developed a relationship with the newly chartered Pittsburgh Chinese ACS. In 1992 the Section was awarded the ACS Award for Outstanding Performance by Local Sections in the Medium-Large Size Category.

Mille served as General Chair of the Central Regional Meeting and the 100th Anniversary celebration of the Pittsburgh Section in October 2003. About 550 registered for the meeting that featured John Fenn, 2002 Nobel Prize winner in Chemistry, as keynote speaker.

Councilor

Mark Bier
Michelle Blanken
James Manner
Almudena Prudencio

Mark Bier

Mark E. Bier received his B.S. degree in Chemistry with Honors from Allegheny College in Meadville, PA and a Ph.D. from Purdue University. He has worked at the V.A. Medical Center in Pittsburgh, the American Sterilizer Corp. in Erie, PA, Thermo Electron Corporation in San Jose, CA. and he is now an Associate Research Professor and Director of the Center for Molecular Analysis in the Department of Chemistry at Carnegie Mellon University. He also does mass spectrometry (MS) consulting. Mark was a key scientist in the development of Thermo Electron's GCQ and LCQ mass spectrometers and he has co-authored book chapters, journal articles and patents. The linear ion trap invention is now sold world-wide. His research interests include bio-physical chemistry in the area of ion-activation, membrane inlet MS and advanced MS development. He is currently working on a NSF funded instrument development project to build a heavy-ion mass spectrometer. Mark has judged numerous science fairs and has co-directed the development of the educational resource entitled, Virtual MS Lab. (http://sVMSL.cmu.chm.edu) and uses the remote-control of mass spectrometers for teaching. Outside the lab, Mark enjoys swimming, backpacking, XC-skiing, sailing, and tango.

•SSP- Mass Spectrometry Discussion Group (SSP-MSDG), member 1998 to present, Chair 1998-99 and 2004-05.

•Spectroscopy Society of Pittsburgh (SSP), member 1997 to present.

•ACS, member, Chair-elect 2001, Chair 2002, Past-Chair 2003, Secretary 2000 for Pittsburgh Section.

•American Society for Mass Spectrometry (ASMS), member 1984 to present.

•International Mass Spectrometry Society (IMSS), member 1999 to present.

•Society of Analytical Chemist of Pittsburgh (SACP), member 1997 to present.

•Bay Area Mass Spectrometry Society (BAMS), member 1988-96, treasurer 1995.

•Past president, Purdue Nu chapter, honorary chemical society Phi Lambda Upsilon.

Michelle Blanken

Michelle Blanken received her B.S. in chemistry from Gannon University, her M.S. in chemistry from the University of Pittsburgh and her M.Ed. from Slippery Rock University. She worked for over seven years as an Environmental Scientist for Baker Environmental. Michelle has been the Program Director of the Chemical Laboratory Technician Program at Bidwell Training Center since 2000. This program trains entry-level technicians to work in variety of field within the chemical industry. While at Bidwell, Michelle and her students have been involved in the Western Pennsylvania Technician Affiliate Group of the ACS and have volunteered at National Chemistry Week and National Engineers Week activities. She has also volunteered as a judge at the Pittsburgh Regional Science and Engineering Fair. Michelle has been an ACS member for 12 years and is also a member of the Pittsburgh section of the Association of Women in Science and the National Science Teachers Association.

James Manner

Jim graduated from Bowling Green State University in 1961 with a B.S. degree in Chemistry. He received his M.S. from Michigan State University in 1963 where he joined PPG Industries. In 1968 he took a two year leave of absence to finish his PhD. from The University of Akron in 1971. Jim retired from PPG Industries in 2000 after 37 ½ years as a Senior Research Associate. Jim's work resulted in 13 US and 12 foreign patents and he was recipient of the Barberton Technical Center Outstanding Professional Accomplishments in 1979. Jim was transferred from Barberton, Ohio to the PPG Monroeville Technical Center in 1989. Jim is married and has two adult children.

Jim has been a member of the American Chemical Society for 44 years. He was very active in the Akron Section and was meetings chairman of the Akron Section and Chair in 1989. Jim was treasurer of the Pittsburgh Section of ACS in 2004. He was Chair Elect in 2005, Chair in 2006, and is currently Past Chair (2007) and recently elected as an alternate councilor

Jim joined both SSP and SACP in 2000 and served over the years as a member of several committees in both of the societies. In SACP he has been chairman of Starter Grant's in 2003, 2004 and 2005 and chair of Continuing Education in 2005. He has served on various CWS committees and as a Presider at Pittcon meetings since 2001.

Almudena Prudencio

Dr. Almudena Prudencio is an Associate Scientist in the Product Safety and Regulatory Affairs division of Bayer MaterialScience since Fall 2006. She received a B.S. degree in Chemistry (2001) at the University of Extremadura (Spain). Before starting her graduate studies in 2002, she held a Research Internship at the Spanish National Research Council in Fall 2001 and a Laboratory Assistantship at Kansas State University in Spring 2002. She joined the Department of Chemistry and Chemical Biology at Rutgers University as a graduate student in Fall 2002 and earned a Ph.D. degree in Chemistry under the advisement of Dr. Kathryn E. Uhrich in Fall 2006. In her doctorate degree, she focused on biomaterial research for drug delivery purposes. She designed, synthesized, characterized, in vitro degraded and biological tested biodegradable polymers for biomedical applications. In her thesis work, she chemically incorporated therapeutic agents (e.g., salicylic acid and derivatives, antioxidants, antibiotics, antiseptics) into a polymer backbone to obtain biocompatible polymeric systems that biodegrade to release the drug. Her multidisciplinary thesis work resulted in several publications, patents, and oral presentations at national meetings. Her work on "Polyaspirin", a polymer that biodegrades into salicylic acid (the active form of Aspirin®) for different medical and dental applications lead her to her current position at Bayer. During Almudena's graduate studies, she had the opportunity to interact and collaborate with researchers from other departments and universities on various projects. In addition to her thesis work, Almudena got involved with mentoring and supervising several undergraduate students. She was awarded a Distinguished Alumni Fellow Award (2001), the Suresh Damle Fund Award for good standing as a Ph.D. candidate (2002) and the Rieman Prize Honorable Mention for outstanding performance as a teaching assistant during the 2003-2004 academic year.

WPTAG Receives ACS Speaker Service Hospitality Award

As described by the ACS Speaker Service, "the Hospitality Awards, established in 2000, have recognized the efforts of the local sections when hosting an ACS tour speaker. Nominations are judged by a committee of tour speakers on how the local section prepared for the speaker visit. Publicity efforts, local arrangements, communication with the speaker, success of the meeting, follow-up, etc., are all considered."

Event Planning Committee with Guest Speakers (left to right) Eric Vidra (BASIC - Communications Chair) Michael Mautino (Chair - Committee on Technician Affairs)Dr. Mickey Sarquis (Center for Chemistry Education - Miami University), Ms. Lynn Hogue (Center for Chemistry Education - Miami University) Bernice Karp (WPTAG - Chair), Deborah Wallace (BASIC - Chair)

In 2006, there were 106 ACS speaker tours, with 385 local section stops. Pittsburgh was fortunate to be able to host one of these local section stops.

On September 25, 2006, the Western Pennsylvania Technician Affiliate Group (WPTAG), representing the Pittsburgh Section ACS, partnered with Bayer Association for Science in Communities (BASIC) to co-sponsor a presentation by the 2006 ACS Keystone Circuit Speakers.

In "Using Toys Creatively in Chemistry," speakers Dr. Mickey Sarquis and Ms. Lynn Hogue, of the Center for Chemistry Education at Miami University in Middletown, Ohio, demonstrated just how interesting science really is and how we can use toys to educate!

Over 100 guests were in attendance for the luncheon presentation. Guests included not only members of WPTAG, BASIC and the Pittsburgh Section ACS, but representatives from area corporations, educators and students, as well.

This was an extremely informative program that won't soon be forgotten! Dr. Sarquis and Ms. Hogue are dynamic speakers and dedicated instructors. They introduced innovative and fun teaching methods which will be used to enhance class room studies and community outreach programs.

In recognition of our efforts in bringing this presentation to Pittsburgh, WPTAG is proud to announce that we were awarded Second Place by the ACS Speaker Service. Speakers Sarquis and Hogue commented that "in reviewing the list of criteria for this award, we were impressed to see that hosts Michael Mautino, Bernice Karp, Deborah Wallace and Eric Vidra had met or exceeded every item on the list". We were honored by such a compliment and to have placed second in a field of 385 local section stops.

Some of the exceptional highlights noted by our speakers included:

•The meeting was held jointly with the Western Pennsylvania Technician Affiliate Group (WPTAG) and Bayer Association for Science in Communities (BASIC).

•There was outstanding publicity for the event and a strong turnout from area science teachers.

•The host sent the speakers small Pittsburgh-theme gifts in advance of their visit.

•The host confirmed the details before the presentation and sent gift baskets to the hotel to welcome the speakers.

WPTAG expresses our sincere appreciation to Dr. Mickey Sarquis, Ms. Lynn Hogue and the ACS Speaker Service. We also thank our co-sponsor, BASIC, and all of our colleagues, members and guests for making the event such a success!

Submitted by Bernice Karp
2007 WPTAG Immediate Past Chair

Spectroscopy Society of Pittsburgh

Technology forum

Duquesne University

Mellon Science Hall, Laura Falk Hall
5:30 p.m.

Wednesday,October 17, 2007

"The Fascinating Chemistry of Passive Mine Drainage Treatment"

Margaret Dunn
President
Stream Restoration Inc.

Margaret Dunn and Stream Restoration Inc. have been successfully treating abandoned mine drainage and cleaning up streams in Pennsylvania. While she would never admit it, Margaret is both nationally and internationally known for her hands out work adding to the scientific knowledge about water quality and treatment methods. Margaret has also been working on metals recovery from AMD passive treatment systems, specifically those with low pH, iron and manganese. In addition to being a person who "gets the job done" Margaret is an entertaining and energetic speaker.

Bio

Margaret Dunn is a registered Certified Professional Geologist with 30 years of experience in the mining and reclamation field. She is currently the co-founder and President of BioMost, Inc. and founder and President of the non-profit organization Stream Restoration Incorporated. For the last decade Margaret has been dedicated to restoring watersheds impacted by Abandoned Mine Lands through land reclamation and the installation of environmentally-friendly passive treatment systems and to providing watershed related educational/ outreach opportunities for people of all interest levels.

ACS Pittsburgh Chemists Club

Pittsburgh Section, American Chemical Society

November 27, 2007

Program and Speaker TBA

Duranti's Restaurant
128 N. Craig St., Pittsburgh, PA

6:00 PM
Cocktail Time - Cash Bar
6:45 PM Dinner
8:00 PM Program

For reservations, please call Ed Martin by noon, Friday, November 23, 2007 at (724) 335-0904 or e-mail at esm@icubed.com.

The December 31, 2007 Deadline is Getting Closer!

You have just weeks left to recruit for the 2007 Member-Get-A-Member Campaign. Every Member of the American Chemical Society that recruits one new paid member will receive a 2007 Periodic Table of the Elements Throw.

At the end of the 2007 campaign the ACS member who has recruited the most new paid members will win a trip in 2008 to an American Chemical Society National Meeting of their choice -- New Orleans, LA (April) or Philadelphia, PA (August).

For MGM guidelines and to download an official MGM application, please go to www.acs.org/membership and click on MGM.

And thank you for your continued support to the American Chemical Society!

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September/October 2007

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JOB SEARCHING FOR CHEMICAL PROFESSIONALS

Presented by

The Society for Analytical Chemists of Pittsburgh
The American Institute of Chemical Engineers, Pittsburgh Section
The American Chemical Society, Pittsburgh Section
The Spectroscopy Society of Pittsburgh

Saturday, February 2, 2008

ASHE AUDITORIUM UNIVERSITY OF PITTSBURGH
219 Parkman Ave. (off Bigelow Blvd.)

Fee: $10.00 (Lunch and Parking at Soldiers and Sailors Parking Garage Included)
(Parking Garage opens at 8:00 A.M.)

PROGRAM

8:30 A.M. Registration

9:00 A.M. Welcome and Introduction

9:30 A.M. MANAGING AN EFFECTIVE JOB SEARCH
Valerie Kuck, Ph. D., Career Consultant, American Chemical Society

12:10 P.M. Overview of the Local Job Market - Joseph D. Jolson, Ph. D.

12:30 P.M. Networking Lunch

1:00 P.M. Resume Review, Personal Consultation, and Local Job Opportunities

4:00 P.M. Close

Bring your parking ticket for validation and your resume to participate in the afternoon program
For additional information, contact Tiffany Ragan at 412-321-1143 or tiffany.ragan@onassignment.com

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Registration Form

2008 Job Searching for Chemical Professionals

Please make $10.00 check for workshop fee payable to ACS Pittsburgh Section
Send completed registration form by January 15, 2008 to:
Susan K. Zawacky, Ph. D., 124 Old English Road, Pittsburgh, PA 15237

Name _____ RESUME REVIEW? YES OR NO

Address _____

City _____ State _____ Zip _____ Phone _____

E-mail address _____

ACS Podcasting Science for Members & Public

ACS members now have the opportunity to share exciting, cutting-edge scientific discoveries with their children, local science teachers, museums, libraries, and other venues through a new podcast launched this summer by the ACS Office of Communications (OC). The science podcast, unveiled in July, reports on the latest studies published in the ACS journals to a broad public audience at no charge.

The podcast, Science Elements, is available on iTunes at http://chemistry.org/science_elements.html. It describes research reported in ACS's prestigious suite of 36 peer-reviewed scientific journals and Chemical & Engineering News, ACS's weekly news magazine. Those journals, published by the world's largest scientific society, contain about 30,000 scientific reports from scientists around the world each year. The reports include discoveries in medicine, health, nutrition, energy, the environment and other fields that span science's horizons from astronomy to zoology.

Those discoveries improve peoples' lives, and Science Elements will make that information more widely available. The podcast draws on an Office of Communications product, PressPac, which initially was developed to assist science journalists in researching and reporting news.

The podcaster for Science Elements is Steve Showalter, a chemist at the U. S. Department of Energy's Sandia National Laboratories in Albuquerque, N.M. Showalter's work at Sandia focuses on the design and development of new batteries. "As an active member of the ACS since 1987, I view these podcasts as part of a broader commitment to improving public understanding of chemistry," Showalter said. He also works toward that goal as a member of the ACS Committee on Public Relations and Communications and as a councilor for the Central NM Section, ACS.

Podcasting is an increasingly popular way of accessing news, information, and entertainment content from the Internet. The term was derived from Apple's "iPod," a portable digital audio and video player, and "broadcasting." Podcasts allow users to subscribe to a "feed" and receive new files automatically whenever posted to the Internet. New installments of Science Elements will be posted weekly and available without charge.

For more information, contact the ACS Office of Communications at newsroom@acs.org

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The Crucible

The Crucible is published monthly, August through May. Circulation, 3,000 copies per month. Subscription price, six dollars per year. All statements and opinions expressed herein are those of the editors or contributors and do not necessarily reflect the position of the Pittsburgh Section.

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http://membership.acs.org/P/Pitt

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Career Opportunities

Advertisers Index

Pittsburgh Area Calendar

November

Mon. 5 **Society for Analytical Chemists of Pittsburgh (SACP)**
Duquesne University, Laura Falk Hall
"Enhancing the Biocompatibility and Analytical Performance of IN VIVO Electrochemical Sensors Using Nitric Oxide Releasing/Generating Polymers"
Philip J. Elving, Professor of Chemistry, Department of Chemistry, University of Michigan, Ann Arbor

Wed. 14 **Spectroscopy Society of Pittsburgh Technology Forum**
Duquesne University, Mellon Hall of Science, Laura Falk Hall
"The Fascinating Chemistry of Passive Mine Drainage Treatment"
Margaret Dunn, President, Stream Restoration, Inc.

Wed. 14 **Spectroscopy Society of Pittsburgh**
Duquesne University, Laura Falk Hall
"When More is Truly Better...Direct Mixture Analysis Using NMR Spectroscopy and Multivariate Statistics to Characterize Complex Materials from Biofluids to Beverages"
István Pelczer, PhD, Princeton University

Tues. 27 **ACS Pittsburgh Chemists Club**
Duranti's Restaurant
TBA

December

Mon. 3 **WPTAG and Cafe Scientifique Pittsburgh**
"Nanotechnology in Everyday Life"
Alan G. Bown, Ph.D., MBA, Executive Director, Pensylvania NanoMaterials Commercialization Center

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