

THE OCTAGON



Volume 85, No. 10, September 2002

Lehigh Valley Section of the American Chemical Society

In This Issue:

Meeting Announcement	1	Chemistry in the Valley	4
Section Officers	1	Chemistry Question of the Month	4
Meeting Minutes	2	This Month in the History of Chemistry	5
2002-2003 Meeting Schedule	3	The Nobel Prize Spotlight	6
Chair-Elect's Message	3	Advertising and Submission Policy	6
2002 Elections Notice	3	National ACS Update	7-9
Editor's Message	5		

758th LVACS Meeting:

Date: Thursday, September 12.

Location: East Stroudsburg University

Reception: 6:00 Lower Dansbury

Dinner: 6:30 Lower Dansbury

Menu: Chicken Piccata, OR - Saffron Risotto

Meeting: 7:30 in Moore Biology Kurtz Lecture Hall

Cost: \$23, Students \$12

Contact: Kathy Curnoles (kcurnoles@esu.edu or 570-422-3342) by 4:00 PM, Monday Sept. 9.

Please include your name, affiliation and phone number.

Speaker: William Cherry, M.D., Ph.D.

**Talk: History and Medical Implications of
Chemical/Biological Warfare**

The history of both chemical and biological warfare will be discussed. The various agents in use and their mechanism of action will be examined. Finally, medical and public health issues will be highlighted.

Bill Cherry is an anesthesiologist at Pocono Medical Center and will soon be joining the staff at St. Luke's. He completed his Residency in Anesthesia at Duke University in 1992, and his Internship in Pediatrics at Emory University. He attended medical school at the University of Miami. Before his career in medicine, Bill was a Professor of Chemistry at Louisiana State University in Baton Rouge. He completed a post doctoral position in Laser Photochemistry at Columbia University, and a Ph.D. in Chemical Quantum Mechanics at the University of Washington, Seattle in 1976. He served as a Chevron Graduate Fellow and a Visiting Scholar at The Australian National University and Brookhaven National Laboratories. He has written one book and authored 46 articles.

LVACS Officers:

Chair: Paul Bouis

Mallinckrodt Baker Inc., Phillipsburg, NJ 08865
paul.bouis@tycohealthcare.com 908-859-9443

Immediate Past-Chair: Joe Sherma

Lafayette College, Easton, PA 18042
shermaj@mail.lafayette.edu 610-330-5220

Secretary: Tara Baney

Merck Research Laboratories, Dept. 864,
10 Sentry Parkway, BL1-4, Blue Bell, PA 19422
tara_baney@merck.com 484-344-3346

Treasurer: John Freeman

522 Raub St., Easton PA 18042
jcf2@fast.net 610-923-358

Councilor: Roger Egolf

Penn State LV Campus, Allentown, PA 18051
rae4@psu.edu 610-285-5110

Councilor: Pamela D. Kistler (2000-2001)

Cedar Crest College, Allentown, PA 18104
pdkistle@cedarcrest.edu
610-437-4471 Ext 3507

Alternate-Councilor: T-Michelle Jones-Wilson

East Stroudsburg University
East Stroudsburg, PA 18301
mjwilson@po-box.esu.edu 570-422-3446

Alternate-Councilor: Carol Baker Libby

Moravian College, Allentown, PA 18018
cblibby@cs.moravian.edu 610-861-1629

May Meeting Minutes:

The 757th meeting of the LVACS was called to order by Chair Dr. Joe Sherma at 7:35 PM on Thursday, May 2, 2002; Spouses' Night. Cedar Crest College hosted the meeting on their campus. The items discussed prior to the lecture are as follows: Dr. Sherma thanked all the spouses in attendance. John Freeman gave the Treasurer's Report; we have \$8,042.24 in the budget, \$1545.53 in the Scholarship Fund, and \$31,378.95 in our Merrill Lynch account. Dr. Sherma asked for a brief commentary of the National ACS meeting held in Orlando. Roger Egolf volunteered, and reported the candidates for election. He did mention that much has been put on hold; however, we are looking at a deficit in 2002, 2003, & potentially 2004. Even with this unfortunate news, it was discussed that local and division sections may receive additional funding from the national sector. The voting was placed on hold due to unclear language. Member dues will be increased by \$4.00 to \$116.00 per year (\$119.00 including LVACS dues). Next, Dr. Sherma introduced our Foundation in Chemistry awardee, Natalie Bartow. She is a senior at Deriuff High School, and will plan to attend Kutztown University to major in secondary education with a focus in chemistry. Her high school chemistry teacher, Mr. Roy Arlotto, introduced her. Natalie thanked the section and expressed her excitement in beginning college. She received a plaque in addition to the \$1000.00 award. Dr. Sherma also reminded everyone of our new website link: <http://www.esu.edu/lvacs/>

Dr. John Griswold introduced our speaker for the evening, Dr. Paul Sherblom. The title of Dr. Sherblom's talk was "Environmental Persistence of Malathion and It's Co-products." Dr. Sherblom began by giving the audience some background as to his interest in pesticide research while in Florida. He explained that Malathion is an organophosphorus insecticide that is applied to a variety of foods and food crops, for commercial and residential use. Dr. Sherblom used turf grass application as an example. There exists dry and wet retention ponds, where the average retention should be 7 days; however, studies show retention is usually only 3 days. The sediments are therefore becoming hazardous waste. Another example is control of mosquitos and the boll weevil. Pesticides are administered through various means to combat the proliferation of the creatures, namely duster or fogger aircraft, helicopters, irrigation techniques, sprayers, and spreaders. Numbers from 1997 show that nationally, 18 million pounds of the active ingredient was poured onto the Earth; 11.2 million was used to combat the boll weevil's attack on cotton. Dr. Sherblom also showed the audience examples of household products that contain Malathion or derivatives thereof that are used frequently.

Next, Dr. Sherblom presented how Malathion interacts in biological systems. Malathion is a cholinesterase inhibitor; acetylcholine builds up in the system, and nerve transmission is impacted significantly. Showing the metabolic pathways, he notes biological systems break the compound down further, potentially causing more damage. The synthetic Malathion is only 95-97% pure; the impurities are even more toxic than the active ingredient (isomalathion, malaaxon, and tert-butylphosphates). In addition, studies performed by Dr. Sherblom, et.al. provides evidence that the EPA should be concerned about re-registration of the pesticide. Data were shown involving samples from storm-water run-off retention ponds. GC/MS analysis showed disappearance of the pesticide at the surface layer after about 24 hours. At the water column head, the data showed a slow decrease in pesticide at 96 hours; however, the concentration was still significantly high enough to be of concern. At the sediment layer, analysis concluded the pesticide leaves extremely slowly. Dr. Sherblom emphasized a worrisome example of the amounts, and temperature effects on Malathion. A program to rid Florida of the Mediterranean fruit fly from June 1997 to October 1997 had, at it's peak, 2.5 oz of pesticide per acre every 10 days spread over 425 square miles of the state. The peak months were July and August, and temperature/degradation concerns abounded. The large drums that stored the pesticide were kept in sunlight, with no temperature control. When this type of environment was reconstructed in the laboratory, and Malathion analyzed by GC-MS, the toxic co-products listed above were shown at higher concentrations than 3-4% manufactured. Dr. Sherblom found skin irritants and isomalathion at fairly large concentrations after such treatment.

Lastly, Dr. Sherblom did acknowledge that in the case of the Mediterranean fruit fly, the cost of not eradicating the insect is impressive. The fly attacks about 250 types of fruit, nuts, and vegetables, causing crop losses of 25-50%. This amounts to about \$10 billion per year in produce losses. Dr. Sherblom concluded by stressing the need to develop less toxic material, and better ways in which to naturally protect our agriculture. After his talk, Dr. Sherblom answered some questions, and was presented with a gift to express the section's appreciation. The meeting was adjourned at 8:30 PM.

Respectfully Submitted,
Tara S. Baney
Secretary, LVACS 16-May-2002

A Message from the Chair-Elect:

Every summer it is the responsibility of the Chair-elect to put together the section meetings for the New Year. Usually this entails asking the various institutions who have indicated an interest in sponsoring a meeting whether they can do it during a particular month between September and May, except for December. This is a give-and-take process, which eventually leads to the detailed program in which you participate when you attend a local section meeting. Certain meeting themes, such as student award, teachers, and spouses nights, repeat every year. The remaining meetings have changing themes usually depending on the speaker, the sponsoring institution invites. Although a national ACS speaker program, which will furnish speakers for a fee exists, it is rarely used by this section. Currently all the meetings are sponsored by academic institutions. Industry venues were used in the past but recently industry has not expressed interest in sponsoring meetings. At the last meeting held at an industrial site, no one from that company except the outside contractors serving the food attended the meeting. We need industrial members and their companies to re-energize themselves and participate in local section activities.

This year's first meeting will take us to East Stroudsburg University. A local section meeting has not been held in the Poconos in a very long time. I plan to take advantage of this opportunity to analytically test a golf course. You know, make sure it is complying with all EPA mandates regarding the use of pesticides, fungicides, etc. Right! This brings me to one of my pet peeves, I work in a research center, and very often I hear, "so how are things at the country club?" My answer usually goes something like this: "Did you ever notice that the only folks having a good time at the Country Club are the members who visit. The workers are usually poorly paid (relative to the visitors), shown little respect and are exposed to various toxins and hazardous chemicals." However, I digress.

Anyway, please check out the meeting line up below and mark your calendar. I hope to see many of you at many meetings this year starting with East Stroudsburg.

2002-2003 Meeting Schedule:

(Please *pencil* these dates on your calendar)

September 12, East Stroudsburg University

October 17, Kutztown University

November 11-15 or 18-22 Lehigh University

January 22, Muhlenberg College

February 20, Lafayette College

March 14, DeSales University

April 15 or 16, Moravian College

May (TBA)

LVACS Elections:

Candidates are Needed for these Offices of the Lehigh Valley Local Section of the ACS (election in October 2002)

If you are interested in running for any local section office, or wish to nominate someone, please inform Carol Libby of the Nominating Committee by August 31. (cplibby@cs.moravian.edu or 610-861-5272).

***Chair-Elect - Serves Jan.-Dec. 2003**

Duties: Organizes the speaker program for the following meeting year, September 2003-May 2004. Serves as Chair, Jan.-Dec. 2004. Duties of the Chair are to: lead monthly meetings (January, February, March, April, May, September, October, November) prepare annual report to the ACS make sure that the regular activities of the section are carried on. These include publication of the Octagon, Chemistry Olympiad, Chemistry Week, Foundation in Chemistry Award (high school scholarship), and calling meetings of Executive Committee as required.

***Secretary - One-year terms starting Jan. 2003**

Duties: Primary responsibility for recording minutes of the meetings (January, February, March, April, May, September, October, November). Submits minutes for publication in the section newsletter, The Octagon, and approval of the membership at next meeting.

***Treasurer - One-year terms starting Jan. 2003**

Duties: Handles the financial business of the section in a timely fashion, including yearly budget financial update for each meeting payment of all expense items accurate record keeping

***Councilor - Three-year term starting Jan. 2003.**

Duties: Attends 2 National ACS meetings per year to represent the section at ACS council meetings. Travel partially subsidized by the section. Reports to LV-ACS Executive Committee and general membership on matters of interest and consequence to the section that are presented at the ACS council meetings.

***Alternate Councilor - Three-year term starting Jan. 2003.**

Duties: Represents the Lehigh Valley ACS section at national ACS meetings when Councilor is not able to attend (see Councilor's duties above).

All Officers, Councilors and Alt. Councilors serve on the LV-ACS Executive Committee, which meets twice a year. Candidates must have an interest in providing professional activities for ACS members who reside or work in our local section thereby increasing Lehigh Valley residents' appreciation of chemistry.

Chemistry in the Valley ***by Paul Bouis***

Chemistry in the Lehigh Valley, chemistry in the nation and even chemistry worldwide have had a challenging time recently attracting the best and brightest to its demanding career path. The hype and glitz of a career in some aspect of computers, the allure of the medical profession, and the promise of great wealth from a business career have reduced the number of candidates for science degrees in general. Colleges and universities have tried to combat this decline by re-marketing chemistry as integral parts of hybrid curriculums such as environmental science and biotechnology. Chemistry departments have had to offer “student friendly” versions of traditional chemistry courses to help maintain their staffing levels as students have tried to avoid chemistry. Recent scandals, where some of our top business leaders have been or will be indicted for questionable business ethics and practices have certainly tainted the business career pathway, but chemistry and science in general still have to improve their selling of these disciplines to the student marketplace. The window of opportunity is wide open for chemistry, and science as a whole, to enlist a new crop of enlightened students.

Every year your local section awards, the Foundation in Chemistry scholarship to the most deserving student in the Lehigh Valley who will pursue a career in chemistry at one of the valley schools. The foundation in chemistry award is your local societies effort to encourage students to pursue a rewarding career in chemistry. I for one cannot imagine a better career that I could have chosen, and I hated chemistry in high school. As part of the application process for the award, we ask that the candidates writes an essay on “Why Chemistry”. Following is an abridged version of Caitlin Sullivan’s essay, our 2000/01 award winner, who just completed her first year at Lafayette College. By the way she is still in love with chemistry.

Why I Want to Pursue a Chemistry Profession ***By Caitlin Sulivan***

A CHALLENGE is defined by Webster’s dictionary as “To arouse or stimulate especially by presenting with difficulties.” This is the best way to explain my reasons for pursuing a professional career in Chemistry.

I can remember entering my sophomore year of high school being completely terrified of the periodic table. I convinced myself that I already hated chemistry before even entering the first day of class, and now to look back and being determined to follow through in the chemistry profession is very ironic.

In my AP Chemistry class, I am fascinated with

the problems I am able to solve with the limited knowledge I have from just two years of Chemistry. I have found, unlike many of the subjects in school, Chemistry is a continual learning process, I don’t think I’ll ever know everything. This challenge me to keep learning and keeps my fascination at a peak. Whether it is through pharmaceuticals or analytical chemistry, the knowledge I can attain from chemistry can lead me to change the world. This thought alone, that I can make a difference, is very enticing. The first time I knew that a chemistry profession is what I wanted to pursue occurred when I noticed that no matter how tired I was or how much other work I had to do, my Chemistry homework (and might I add, this is NOT a light load by any means) was never anything I dreaded to do. English stories become boring, math becomes tedious, but chemistry was something I enjoyed doing. My peers would even tease me because I threatened to ask our Chemistry teacher if she could write me stoichiometry problems to do over the summer.

Asking for extra work may sound humorous, especially coming from a high school student but my parents have always instilled in me that I should pursue a profession I enjoy, and even though I’m not exactly sure on the field of Chemistry I wish to pursue, the way I feel about Chemistry and the work involved in this profession leads me to believe I’m on the right track! I have had many opportunities thus far which have opened my eyes to the various professions within Chemistry. I have been part of a Chemistry Explorer Post at Air Products, which has given me the experience of working in a professional lab and the chance to interview employees divulging various tasks that are required of someone in the Chemistry.

Sounds like the start of a come back for chemistry at least in the Lehigh Valley. We can all help to attract other Caitlin’s. Mentor a student, visit your local schools, encourage students to “***go chemistry***”. All of us will benefit from these efforts.

Question of the month

Four scientists were dual Nobel Laureates.
Who Were They?

*Come to the September
meeting for the answer!*

Editors Message:

I hope you are enjoying this month's issue of the Octagon. You may have noticed some formatting and content changes. I hope you like the changes; I plan to expand the newsletter as well as the section's website over the coming months. I would like to invite members to contribute an article or run a column related to chemistry or chemical education in the Valley. I would be glad to accept your assistance and help as needed; please call or email.

My thanks to those you who responded promptly and chose an email Octagon subscription. If you haven't yet looked at our website please take the opportunity at www.esu.edu/lvac. You can access section information like meeting announcements and local events as well as current and back issues of the Octagon. Convenient links to officers' email addresses are also available. If you would like to be an email subscriber, just send me an email at mjwilson@po-box.esu.edu with the subject line - Email Octagon - and I will add your name to the distribution list. Email addresses will remain strictly private

OOPS!

Numbering of the 2002 issues of the Octagon (Volume 85) is in error. The mistake in numbering was made with the January 2002 issue which was incorrectly numbered Volume 85, No. 5, rather than No.1. To avoid duplicate numbering, the current trend will continue for 2002. Therefore, there are no issues numbered 1 through 4 for Volume 85. Beginning in 2003 (Volume 86) the correct labeling will be resumed.

A Nobel Prize in Chemistry:

Receiving a Nobel Prize in Chemistry is a crowing career achievement, but earning two nobel prizes is an amazing feat; one accomplished by only two chemists and four individuals. Few chemists have achieved the distinction of Fredrick Sanger, the 1958 and the joint winner of the 1980 Nobel Prizes in Chemistry. The 1958 prize was awarded for his work on the structure of proteins, namely insulin. Sanger's protein research advanced the field of biochemistry by providing the framework for British biochemists John Kendrew and Max Perutz, who in 1960 were able to prepare the first three-dimensional models of protein molecules. The 1980 prize was awarded with American Biochemists Paul Berg and Walter Gilbert, for contributions concerning the determination of base sequences in nucleic acids. The work that won Sanger his second Nobel Prize also led to his development of the Sanger Sequencing Method which is the major DNA decoding technique used in the Human Genome Project. Fredrick Sanger was born on August 13, 1918 in Rendcombe, Gloucestershire, England. He earned a B.A. degree (1939) and a Ph.D. degree (1943) from the University of Cambridge. He served as a head of the Counsel of Molecular Biology at Cambridge until his "retirement" in 1983. But Dr. Sanger's work is not done. In an interview with The Boston Globe after receiving his second prize, Sanger was quoted,

"I don't want to give you any odds, but I'll give it a try. I probably would have to wait until I become 84 years old," said the 62-year-old Cambridge professor, "as it took me 22 years to get a second gold medal."

Its 2002 and Dr. Sanger's 84th birthday is on the horizon. I think I just might take that bet!



National Chemistry Week

October 20 26, 2002

For further information, contact:

ACS Office of Community Activities at 1-800-227-5558, ext. 6097.

Advertising/Article Policy

All articles of interest to LVACS members including local news and meeting details will be printed on a priority basis over ad copy. All ads for job openings and seminars with free admission of interest to LVACS members will be printed free as space is available. All ads for goods or services available at a cost will be printed for a fee. Please contact the editor for the fee structure. The editor reserves the right to reject inappropriate copy. All article copy must be submitted 6 weeks prior to the meeting date. Electronic format (ms word, word perfect email or simple text) is preferred but not required. Information can be emailed, posted or faxed to the editor. Images can be submitted electronically in either gif, jpg, tiff, or bmp format. Images submitted as hardcopy may be scanned and compressed for insertion. The editor reserves the right to make minor changes to copy in the interest of space prior to publication. Significant changes will be communicated to the author before print.

Article/Copy Submission Guidelines:

Please address all correspondence concerning this publication to the editor.

T. Michelle Jones-Wilson
East Stroudsburg University
Dept. of Chemistry
200 Prospect Street
East Stroudsburg, PA 18301
Phone: 570-422-3446
Email: mjwilson@po-box.esu.edu
Fax: 570-422-3908

Applications for membership in the American Chemical Society should be sent to the LVACS Secretary. This publication, founded in 1918 is devoted to the interests of the Lehigh Valley Section of the American Chemical Society. It is published eight times each year (January through May and September through November) and provided free to members of the local section: subscription fee to non members is \$10 yearly.

This Month in the History of Chemistry:¹

September 1: *Stacy Carkhuff of Firestone applied for patent on non-skid auto tire, 1908.

September 5: *Date of pamphlet in which Jacobus H. van't Hoff proposed tetrahedral carbon, 1874; it was not universally embraced.

September 9: *Albert Ghiorso and Glenn T. Seaborg announced discovery of element 106 in 1974. The nomenclature controversy around element 106 is over; the name seaborgium (Sg) selected by Seaborg's colleagues will stand.

*Milestone case for forensic chemistry begins with the disappearance of a young German girl, later found murdered, in 1898. For the first time, chemical analysis of blood stains contributed to a conviction.

September 11: *Surveyor 5 lands on the moon, 1967, and begins elemental analysis of surface.

September 13: *Burriss Cunningham and Louis Werner isolated first microscopic amount of a compound of americium (Am, element 95) at wartime Metallurgical Laboratory, University of Chicago, 1945.

September 15: *Michael McElroy and Thomas M. Donahue presented a detailed chemical dynamic model for a moist Martian atmosphere, 1972.

September 16: *The Montreal Protocol on Substances that deplete the Ozone Layer is signed by 24 nations, 1987.

September 17: *Peter Cooper Hewitt obtains US patent for mercury vapor lamp, 1901

September 21: *Louis Pasteur samples pure air of French Alps, 1860. His experiments comparing this air to city air contribute to germ theory of disease and demise of the theory of spontaneous generation.

September 26: *David O. Saylor receives US Patent #119,413 for portland cement, a mixture of magnesium clay with limestone clay, 1871.

September 27: *Silent Spring, a scathing critique of chemical pesticides (including DDT), by Rachel Carson is published in 1962.

September 28: *Lise Meitner and Otto Hahn meet, 1908. Their collaboration leads, 30 years later, to the experimental detection and interpretation of fission.

September 30: *Harry Mork, Arthur Little, and William Walker receive first US patent (709,922) for rayon (a name coined later for this "artificial silk" of cellulose acetate), 1902.

*William Morton uses ether in pulling a tooth of Eben Frost, 1846, the first published use of ether as an anaesthetic.

*L. B. Werner and Isidore Perlman reported isolating first quantity of a compound of curium (Cm, element 96) in 1947 at University of California, Berkeley.

¹Thanks to Carmen Giunta, for her Classic Chemistry website <http://webserver.lemoyne.edu/faculty/giunta/>

The University of Tennessee/NSF Supported Research Opportunities for Faculty

The National Science Foundation Chemistry Division has instituted a program of Research Sites for Educators in Chemistry (RSEC) in recognition of the need to encourage research and experiential learning at primarily undergraduate institutions (PUIs) in the US. The Site at the University of Tennessee in Knoxville offers US PUI faculty in chemistry, biology, and other related fields opportunities for NSF-supported fellowships aimed at enhancing both research and teaching in chemistry and related disciplines at Fellows' home institutions. Postdoctoral fellowships are available (at lower priority) for prospective PUI faculty who are US citizens or permanent residents.

NSF/RSEC now offers Fellows flexible research visits of 2-15 months at the University of Tennessee in Knoxville (UTK) and/or at a research-active institution, including Oak Ridge National Lab, UT-Chattanooga, University of the South (Sewanee), University of North Carolina-Asheville, Berea College, and Procter & Gamble. Research hosts at UT and the "partner" institution(s) will help each Fellow establish collaborations sustainable beyond the term of appointment though "catalyst" grants of up to \$7000 upon completion of the Fellowship. Funding is also provided for sabbatical and/or summer salary, displacement and travel expenses, and supplies.

Teaching activities will be limited to no more than one course per semester (none in the summer), providing an opportunity to share teaching ideas while being actively engaged in state-of-the-art research. Support is now available for a qualified student from the Fellow's home institution for research with the Fellow during and/or after the Fellowship. Details about the program, including an on-line application form, are available at <http://www.chem.utk.edu/~rsec/>, or by contacting the RSEC Program Director: Dr. Kelsey D. Cook, Department of Chemistry, The University of Tennessee, Knoxville, Tennessee 37996-1600, rsec@utk.edu 865-974-8019. Applications can be submitted at any time, but should be received by mid-January for Fall start dates and mid-July for Spring start dates.

ACS Women Chemists Committee Travel Awards - Year 2003

The Eli Lilly & Company is sponsoring a program to provide funding for undergraduate, graduate, and postdoctoral women chemists to travel to scientific meetings in 2003 to present the results of their research. Grants may be applied only for registration, travel, and accommodations, and are restricted to travel to meetings within the United States. Grant funds are limited, but there are some funds set aside for undergraduates. Only U. S. citizens and permanent residents are eligible. Applications should be limited to one per research group. Awards will be given with preference to the following order: (1) any applicant who will be making her first presentation (regardless of format) at a national or major meeting, (2) graduate or postdoctoral applicants who have not presented at a national or major meeting since leaving undergraduate school. Women who have received a prior award under this program are ineligible.

The deadline dates for receipt of applications for 2003 meetings are as follows:

- * September 15, 2002 (Meetings between January 1 and June 30, 2003
- * February 15, 2003 - Meetings between July 1 and December 31, 2003

In order to apply for the award, please submit the following:

1. A resume (include permanent address).
2. A completed official application form that you must obtain from your department chair, or may download from <http://membership.acs.org/W/WCC/travap00.pdf> (if you need an acrobat reader, go to <http://www.adobe.com/store/products/reader.html>). The application form is also available from the WCC Staff Liaison at the American Chemical Society. (See address below or call 800/227-5558, ext. 6123; e-mail: wcc@acs.org)
3. An abstract of the work to be presented, using the official meeting abstract form (or printed copy of an online abstract submission). If not on the official meeting abstract form, reason must be stated on the application form. You will also need to submit your paper through the meeting registration process independent of this Travel Award application.
4. A letter detailing the reasons you want this award (both scientific and financial), and specifying whether you have made a previous presentation at a national or major meeting.
5. A letter from your advisor confirming your participation in the meeting at which you will be making your presentation, commenting on your technical ability and potential, and listing any other travel support that would be available from the department or research grants.

Awards will be made on the basis of scientific merit and financial need, with the WCC Membership/Awards Subcommittee serving as the selection jury. Through this program, the Eli Lilly & Company continues to increase the participation of women in the chemical sciences. Please send your application to: Ms. Cheryl H. Brown, Women Chemists Committee, American Chemical Society, 1155 16th Street, NW, Washington, DC 20036

New Guidelines for the Chemistry Education Option

The Chemistry Education Option for degree certification of undergraduates in ACS-approved chemistry departments has been offered since 1988. It was designed to provide a route for students planning to teach at the secondary level to receive a certified degree in an ACS-approved program while simultaneously obtaining teaching credentials. Since instituted, very few students have been certified to the ACS under the Chemistry Education Option at the six institutions offering it. Consequently, the Committee on Professional Training (CPT) performed an extensive re-evaluation of the degree requirement of this option. This extensive study has led to a proposed revision of the requirements for the Chemistry Education Option, as well as a new approved Chemistry Education Minor. This minor recognizes that currently a large number of high school chemistry teachers have undergraduate degrees in other science disciplines and relatively weak preparation in chemistry. The new minor would provide a mechanism for students planning to become state certified teachers in secondary science fields other than chemistry to obtain a substantial preparation in chemistry.

The highlights of the proposed revisions to the requirements for the chemistry education option would include the following:

- * the same first two years as any other ACS certified major, except that only one semester of organic chemistry lab would be required

- * comparable exposure equivalent to one-semester to other areas of chemistry: analytical (environmental), biochemistry, inorganic, and physical

- * in-depth study of one area of chemistry via course work or research, equivalent to three semester credit hours

- * reduction in lab hours (minimum of 300 lab contact hours vs. present 500 hours)

- * three semester-credit hours (or equivalent) in chemistry teaching methods (new)

- * No change in ancillary course requirements (one year each of calculus and physics with lab)

- * Students electing option are expected to complete education courses needed for teaching certification in their state

The requirements for this minor would be:

- * 23 semester-credit hours (or equivalent) of chemistry with two or more of the following areas represented beyond general chemistry: analytical, biochemistry, environmental, inorganic, organic, and physical

- * 200 lab contact hours from two different areas beyond general chemistry

- * eight semester-credit hours of physics

- * three semester-credit hours (or equivalent) in chemistry teaching methods (new)

The experience in chemistry methods would include exposure to experimental design and preparation, stockroom procedures, safety, disposal of chemical waste, teaching assistant experience, and the literature of chemical education. This requirement could be met in a variety of ways including independent study, teaching assistantships, specific methods courses, and interdisciplinary approaches.

The Committee is now seeking comments from the chemistry community on these two proposals. For a more detailed description of the proposed changes, please visit the CPT website at <http://chemistry.org/education/cpt>.

The experience in chemistry methods would include exposure to experimental design and preparation, stockroom procedures, safety, disposal of chemical waste, teaching assistant experience, and the literature of chemical education. This requirement could be met in a variety of ways including independent study, teaching assistantships, specific methods courses, and interdisciplinary approaches.

In addition to the specific requirements of the proposals themselves, of particular interest to CPT are the following questions:

1. Do you think that these changes will make the chemistry education option a viable possibility for more institutions?

2. Should all ACS-approved departments be able to offer this minor or only those with an approved chemistry education option?

3. How easily could the chemistry methods requirement be met?

4. Do you think that these proposed changes will increase the number of students electing to pursue a career in secondary school chemistry education?

Comments on both proposals should be directed to the ACS Office of Professional Training at m_thompson@acs.org or to Matt Thompson, Office of Professional Training, American Chemical Society, 1155 16th St., NW, Washington, DC 20036.

Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has. - Margaret Mead

Find Out What's New in Chemistry!

Plan on attending a Regional Meeting this fall!

- *17th Rocky Mountain Meeting
Hyatt Regency Albuquerque,
Albuquerque, NM
October 12-15 - November 3-6
- *37th Midwest Meeting
University of Kansas, Lawrence, KS
October 23-25 - November 13-16
- *58th Southwest Meeting
Austin Hilton, Austin, TX
October 12-15 - November 3-6
- *54th Southeast Meeting
Westin Francis Marion, Charleston, SC
October 23-25 - November 13-16

Visit the Career Resource Center at these ACS regional meetings for an array of professional development programs and services. Features may include an employment clearinghouse (RECH), career management workshops, one-on-one resume critiques. For programming information, visit the websites for each meeting available at chemistry.org/meetings/regional.html

CS ProSpectives Conferences

What is ACS ProSpectives?

ACS ProSpectives is a line of limited attendance technical conferences, customized for senior-level industry scientists, that addresses topics straddling the boundary between chemistry and another physical, or life science.

2002 Conferences

Combinatorial Chemistry: Conventional Tools from Revolutionary Technologies

Leesburg, VA - September 22-25, 2002

Future Directions of Drug Delivery Technologies: Molecular Design, Cellular Response and Nanotechnology

Boston, MA - October 13-16, 2002

The Dynamic Proteome: Interactions and Regulation
Cambridge, MA November 10-13, 2002

For Info visit <http://www.acsprospectives.org/>

Services

One-Stop-Shopping for Chem. Safety at ACS

Are you looking for chemical safety information for teachers, for students of all grades, or for your business, and you need it quickly? The ACS Committee on Chemical Safety website is the place to stop and "shop." Many of the publications are available free-of-charge in electronic format from the website. All publications contain ordering information. Visit the web-site at <http://chemistry.org/committees/cs> for additional information.

Travel Awards for Chemists with Disabilities Announced

The ACS Committee on Chemists with Disabilities (CWD) is pleased to announce its new Supplemental Travel Award program for students and postdoctoral researchers with disabilities. The program's purpose is to promote presentation by individuals with disabilities and provide opportunities to build lasting professional relationships through networking at scientific meetings. The deadline for applications is October 15, 2002 for meetings scheduled between January 1 and June 30, 2003. For further information on this program or other committee activities, please go to <http://membership.acs.org/C/CWD/> or contact Ms. Kathleen Thompson 800-227-5558 ext. 8072.

A FREE Gift and Your name in Chemical & Engineering News

The 2002 ACS Member-Get-A-Member program is in full swing. This year's thank-you gift is a practical post-it note holder with a stylized star design to emphasize that members make the difference in ACS. So, please look around your office, lab, or classroom to find those who would benefit from becoming a member of ACS. Get your own Member-Get-A-Member kit by calling 1-800-ACS-5558 or access our online Member-Get-A-Member form at <http://chemistry.org/membership> (click on "Member-Get-A-Member Program" and than "Online Application Wizard".) Remember, once your nominee has been accepted for membership in the Society, you will become a member of the President's Club and your name will be printed in the December 30th issue of Chemical & Engineering News.

JobSpectrum.org Introduces Two New Products

May is the debut of Job Spectrum's newest product, ChemHR. ChemHR is an electronic newsletter specifically for recruiters and hiring managers in the chemical sciences. ChemHR offers a blend of news and trends in hiring, recruitment, compensation, and workforce analysis—solid information each month delivered directly to your desktop. If you are a recruiter, a hiring manager or want to help out HR, join the ChemHR mailing list at jobmaster@Jobspectrum.org with "Subscribe ChemHR" in the subject line. Campus Center at Job Spectrum made its first appearance at the Orlando National Meeting. A comprehensive career service for students, their faculty, and campus recruiters, Campus Center is designed to help students with their career planning so that they can make an effective transition to the workplace, help departments showcase their students and academic programs, and help recruiters looking for entry-level talent. Learn more at http://www.jobspectrum.org/campus/campus_center.html.