

THE OCTAGON



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Lehigh Valley Section of the American Chemical Society

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814th Meeting of the LVACS

Monday, February 22, 2010

Albright College

Reception: 5:30 PM, Campus Center South Lounge, Fireside

Dinner: 6:00 PM

Business Meeting: At the conclusion of dinner

Talk: 8:00 PM Klein Lecture Hall

Menu: Assorted Dinner Rolls w/ Butter, Spring Mix Salad, Chicken Francaise OR Baked Orange Roughy with Tomato and Fennel, Whole Grain Rice Medley Green Beans Almandine, Chocolate/Raspberry Mousse Parfait, Vegetarian entree by request

Cost: \$25.00 (includes social hour, with students and retirees at 1/2 price.)

Contact: Reservations by 4:00 P.M. Monday, February 15, 2010 through Nancy Kerper: (610) 921-7720; nkerper@alb.edu or Pam Artz: partz@alb.edu. (E-mail is preferred with LVACS as the subject). Please specify a choice of entree.

Directions: available on the web at <http://www.albright.edu/about/directions.html>

Campus map: available on the web at <http://www.albright.edu/about/Printable-Map.pdf>

Speaker: Patricia Hill, Ph.D., Professor, Department

of Chemistry, Millersville University, Millersville, PA.

Biography: Dr. Patricia Hill, Professor of Chemistry, has been teaching at Millersville University since 1986. She received her Bachelor of Science degree in Biochemistry from the University of New Hampshire and her PhD in Organic Chemistry from the University of Arizona where she worked on the synthesis and characterization of biologically active peptide hormones. In 1991 she developed a laboratory-based general education course for non-science entitled "The Molecular Basis of Color and Form: Chemistry in Art". She has taught the course every year since then. In the fall of 1997 she worked in the Conservation Analytical Laboratory of the Smithsonian Institution during a sabbatical leave. And during the academic year 2008-2009 she gained more experience with art conservation by working in the conservation laboratory of the Arizona State Museum in Tucson, Arizona. She has also developed and taught a topics course in forensic chemistry at Millersville University.

Talk: *Fraud, Fakes, Forgeries — Forensic Authentication of Works of Art*

Abstract: On May 15, 2007 at Sotheby's in New York, a 1950 painting by Mark Rothko sold for \$72.8 million, the highest price ever paid for a work at a contemporary art auction. The very next night at Christie's, a 1963 silkscreen on canvas by Andy

Warhol went for \$71.7 million. This makes art forgery a potentially lucrative venture. This talk will examine several cases of modern forgeries to discover how "forensic analysis" mimics good practices in art conservation with the goal of uncovering fakes and forgeries.

***LVACS Meetings
Spring 2010***

*March - Cedar Crest College
April - Moravian College
May - TBA*

Science Café at Barnes & Nobel

The first Science Café will be presented by Professor Michelle C. Geoffrion-Vinci of Lafayette College on Thursday, February 25 at 7pm. Her presentation at Barnes and Noble in the Southmont Center off of Route 33 will be on the "Food of the Gods: Chocolate and Western Civilization." Professor Geoffrion-Vinci, an associate professor of Spanish in the Department of Foreign Languages and Literatures, is a noted scholar and dynamic teacher, which was recognized with the Thomas Roy and Lura Forrest Jones Lecture Award for Outstanding Scholarship and Teaching in 2004. In order to better understand the history and chemistry of chocolate, there will be a generous supply of chocolate for the members of the audience.

As part of the Section's outreach efforts to the general public, the Section will continue to sponsor Science Cafés, with the next one scheduled for late April. If you have any ideas for topics and/or speakers for the Science Cafés, please contact Bill Miles (milesw@lafayette.edu). We hope to make the Science Cafés an enduring and highly visible outreach effort of the Lehigh Valley Section of the ACS.

LVACS Officers - 2009

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Undergraduate Research Poster Session

Sponsored annually by The Lehigh Valley Section of The American Chemical Society

Poster session will an evening during the last week of April (4/26-4/30/2010) *

April 19 abstract deadline

An opportunity for undergraduates attending a college or university within the Lehigh Valley section of the ACS to report their research. The work may have been done at the student's home institution with a chemistry or chemical engineering faculty member or during a summer research experience elsewhere.

*The date is uncertain at this time because our speaker for the evening has not yet confirmed the date. Look for final details in the March Octagon. If you have any questions before then, contact Carol Libby,

2010 LVACS Election Results

Michelle Jones-Wilson – Alt. Councilor
Carol B. Libby – Councilor
Al Martin – Treasurer
Nigil Sanders – Chair Elect

President Obama Announces National Lab Day

On November 23, President Barack Obama announced the establishment of National Lab Day, an effort supported by ACS and 190 other organizations representing more than 6.5 million science, technology, engineering, and math (STEM) professionals.

The first National Lab Day is tentatively set for early May 2010 and will be part of a large, ongoing STEM

initiative called “Educate to Innovate.” ACS and other organizers hope National Lab Day will help stimulate more hands-on science learning by fostering enduring collaborations between individual STEM professionals, teachers, and students. ACS Chemistry Ambassadors are already making these connections. To join the effort or learn more, visit www.acs.org/chemsityrambassadors and www.nationallabday.org.



Submissions to the Octagon

LVACS members, we want to know about what you do! Please submit pieces of interest to the chemistry community for publication in the Octagon. Articles about chemistry or science in the Lehigh Valley are always welcome. Let us know about upcoming events, educational opportunities or job openings.

The Octagon is published eight times per academic year, September through May. Each issue generally arrives three weeks before a section meeting. Thus the deadline for submissions is generally one week earlier. Please email the editor at lvacs@ptd.net for specific questions about deadlines for any issue. Email submissions to lvacs@ptd.net

A note about formatting:

Please submit text as simple .txt files, or you may paste the text into an email. If you use later versions of MS word please do not submit documents as .docx files. I cannot always read all content in .docx formatted files. It would be best to use the “save as” option, generally found under the file menu, to save the document as .txt. Also images embedded (pasted) in MS word (particularly later versions) are problematic to extract and put in the newsletter while retaining good image quality. Whenever possible, please submit images in a standard format such as .jpg, .jpeg, .gif, .tiff or .bmp as individual files, rather than embedded within a document. If the placement of images is critical you could submit two versions (one embedded so that I can see where you would like images placed) and the other as separate files so that I may maintain figure resolution.

January 2010 LVACS Meeting Minutes

The 813th meeting of the Lehigh Valley Section of the American Chemical Society was held on January 28, 2010, at Penn State Lehigh Valley. Our new chair, Dr. William Miles, called the meeting to order at 7:30 PM.

The official election results for the officer positions of the Lehigh Valley section were announced. The officers were introduced to the assembly and include:

Chester Crane – Immediate Past Chair

Al Martin – Treasurer

William Miles - Chair

Carol B. Libby – Councilor

Nigil Sanders – Chair Elect

Philip Weiser - Secretary

Michele Wilson – Alternate Councilor

Dr. Miles announced several events to keep in mind for this upcoming year. On February 25, the first of a series of Science Café gatherings will be held at the Barnes and Noble bookstore off Route 33 (South Mont Mall location). The talk is entitled “Food of the Gods: Chocolate and Western Civilization.” Samples of chocolate will be available for testing. This event and those that follow are made possible by a \$500 Science Café grant from the ACS national Local Section Activities Committee.

Other events to keep in mind are National Lab Day, which will be held sometime in May, the Chemistry Olympiad competition held by Muhlenberg College,, the undergraduate research poster session held at the April meeting at Moravian College, and National Chemistry Week in October. An event may also be held in recognition of our student members becoming official full-fledged members of our local section.

The ACS has also started a new public outreach program called “Chemistry Ambassadors.” More information is available on the ACS website (<http://www.acs.org>) for those interested in becoming involved with outreach into the community. This will be important to become involved since 2011 has been recognized as the International Year of Chemistry.

The Treasurer’s report from Al Martin indicates that the society is currently stable financially. Our

current balance is \$7,929.83 and our net worth is \$30,421.13. Approximately \$2,000 remains in an older high school scholarship account as well. Councilor Carol Libby had only to report that Councilor Roger Egolf was appointed to the ACS Divisional Activities Committee.

The speaker of the evening was Professor Mike DeRosa from the Penn State Brandywine campus (formerly Delaware County campus). Professor DeRosa served in the Peace Corps as a professor in Venezuela in 1973. His experiences have led him to supervise a number of undergraduate research projects; nearly 39 of his students had their projects published with the help of NSF support. His talk was entitled “2-Aminopyrroles – Synthesis, Reactions, and Tautomerism.”

The event was adjourned at 8:30 PM. The next meeting will be held at Albright College.

Respectfully submitted,

Philip Weiser, Secretary LVACS

Chemistry Podcasts

Several great science news podcasts are available from the American Chemical Society and can be downloaded for free via RSS feed or iTunes.

Global Challenges

Global Challenges/Chemistry Solutions is a series of podcasts describing some of the 21st Century’s most daunting problems, and how cutting-edge research in chemistry matters in the quest for solutions. This sweeping panorama of global challenges includes dilemmas such as providing a hungry, thirsty world with ample supplies of safe food and clean water; developing alternatives to petroleum to fuel society; preserving the environment and assuring a sustainable future for our children; and improving human health. An ongoing saga of chemistry for life — chemistry that truly matters. Global Challenges received a coveted Gold Medal as the best podcast in the national awards competition sponsored by Association TRENDS, the national newspaper for associations. “These podcasts bring important information about global climate change to the American public. They are a tremendous contribution of the American Chemical Society, for which I’m very grateful.”

- Dr. Raymond L. Orbach, Former Under Secretary for Science, U.S. Department of Energy

Science Elements

Science Elements is a weekly digest of cutting edge research from the world of chemistry. Some recent episodes are featured below:

Episode 141 – January 25, 2010 How blueberry juice could improve memory in older adults; Why people older than 50 should be concerned about copper and iron; A blood test for a common mental illness that could be available soon

Episode 140 – January 18, 2010 Explosive findings about the inner realm of living cells; A vast new liver protein database that could shed light on combating disease; New evidence that dark chocolate helps ease emotional stress

Episode 139 – January 11, 2010 Explosive findings about the inner realm of living cells; A vast new liver protein database that could shed light on combating disease; New evidence that dark chocolate helps ease emotional stress

Bytesize Science

Bytesize Science is an all-ages trip to the frontiers of knowledge. Posted every Monday, Bytesize Science translates scientific discoveries from ACS' 36 journals into intriguing stories about science, medicine, energy food and much more.

Recent episodes are described below:

Episode 43 – Presto! - Fast color-changing material may lead to better sunglasses Find out how color-changing sunglasses work, and how a team of scientists in Japan have figured out a way to make sunglasses work even better.

Episode 42 – A Colorful New Weapon in the Battle of the Bugs -New weapons in the Battle of the Bugs can be really important for soldiers fighting in areas of the world infested with the most dangerous kinds of bugs. One potential new weapon involves fluorescent feces.

Episode 41 – Painting superbugs into a corner -

Scientists have come up with a unique new paint that literally paints germs into a corner, a corner where they can't escape.

News From National ACS

Your Travel Budget's Cut, But You Still Need Training? Try an ACS Webcast!

Few companies are immune from the economic hardships in the headlines, and many budgets have been trimmed. But it is still crucial to your career to engage in continuing education to expand your skills and stay abreast of new topics. Join the ACS Webcast mailing list at www.proed.acs.org/emailme to be the first to hear about the 2010 schedule, try out new courses for free, and receive discounts not available to the general public! Save your time and money and take a look at the courses available online through ACS. ACS Webcast Short Courses provide the same quality training that ACS has long been known for. However, the courses are presented over the Internet, so they offer added convenience and flexibility.

*Economical. Most ACS Webcasts cost less than \$100 an hour, which is far less than most technical training.

*Easy. Our technology is easy to use and works with all typical computer systems, so virtually anyone can easily view a webcast from the comfort of their home, office, or lab.

*Convenient. Class attendance is NOT required. If you miss a class, simply use your on-demand access to the session recording so you can catch up on your own time.

*Informative. All class materials are available for download, and you can email the instructor anytime.

There are expanded course offerings in analytical, organic, pharmacology, engineering, instrumentation, and other areas. For the full list of Webcast Short Courses and more information on available discounts, visit www.proed.acs.org.

Considering a Career in High School Chemistry Teaching?

ACS can help you pursue your dream of becoming a high school chemistry teacher with the ACS-Hach Second Career Teacher Scholarship. The ACS-Hach Second Career Teacher Scholarship is awarded to

professionals with work experience in chemistry-related fields. Scholarship recipients receive \$6,000 for full-time study and \$3,000 for part-time. Applications are due on April 1, 2010. Learn more about this exciting scholarship program at www.acs.org/hach.

ACS Announces the 2010 Schedule for Short Courses

Our 2010 Schedule is out! Find out which courses are being offered in what cities at www.proed.acs.org/2010. The ACS Office of Professional Education has dramatically revamped its website and registration system so you can find the courses you're looking for in no time. Bookmark this link today: www.proed.acs.org. You can now search our short courses, webcast courses, and ProSpectives Conferences by topic area, date, or location and even browse our full instructor list.

We are continuously investing in new course development, so if you don't see what you're looking for, just drop us a line at shortcourses@acs.org, and we'll do our best to serve your technical training needs.

Launch of the ACS Strategic Plan for 2010 and Beyond

The ACS Strategic Plan for 2010 and Beyond has launched online (<http://strategy.acs.org>) and for mobile devices (<http://strategy.acs.org/mobile>). The plan continues to provide the Society with a blueprint of how to fully realize our vision of "Improving people's lives through the transforming power of chemistry."

Our vision, mission, and core values continue as the foundation of the plan. The six strategic goals remain unchanged as they relate to our efforts to provide indispensable information, engage the global community, address global challenges, communicate with the public, advocate for the profession, and maintain financial health.

The plan for 2010 and beyond contains modest changes from earlier releases. The entire plan's content, with the exception of the vision, mission, and core values, are structured around the plan's goals. Throughout this past year, we have reviewed the external trends as well as the challenges and

opportunities for advancing the plan, and we have developed strategies that enable the Society through chemistry to respond to the global challenges we face. Our measures of success were developed to ensure that our strategies advance. To learn more about the ACS Strategic Plan for 2010 and Beyond, visit <http://strategy.acs.org> to see the ways in which the Society is working toward making our vision of "Improving people's lives through the transforming power of chemistry" a reality.

Create Your Own Local Networking Job Club

Energize your job search by creating your own local job club. Go to www.acs.org/careers under ACS Career Advice, then to Job Search Essentials for this and other job search information.

Starting a Job Club Checklist

- Determine your membership.
- Name your group.
- Fix a place, time, and frequency for meetings.
- Figure out finances.
- Plan programs.
- Set expectations for and from members.
- Communicate within and about your group.
- Celebrate successes.

Determine Your Membership

Will you be open to anyone who wants to join? ACS members only? By invitation only? Will you have only unemployed members? Employed, but looking for a better position? Employed, and willing to give advice to others? Will you recruit all members at the start, or allow people to come and go?

Name Your Group - Pick a name that defines your mission. You could be a Job Club, Community Action Team, Careers in Transition, Community Employment Action Team, or support group. Or get creative: Maybe your members will be more excited about a Chemists Conquer Careers Club.

Fix a Place, Time, and Frequency for Meetings -

People will be more likely to come if the meetings are at a regular time and place. A regular time and place also create a sense of normalcy and rigor. This type of regular activity can be very useful for people who don't currently have that in their work life. You can probably use a room for no charge at a local college, university, or company, especially if you have someone on the organizing team who works there. Otherwise, you can

try a coffee shop, library, bookstore, church, or other public place. If you have to pay for a meeting place, you either need to find a sponsor, or collect dues from members. You could meet early in the morning before work, for lunch, or over or after dinner.

Figure out Finances - If you find a free place to meet, and don't meet over meals, you probably won't have any expenses. If you meet over a meal, you can make it Dutch treat and handle expenses at each meeting. If you have to pay for the meeting room, or have more complicated food arrangements, you may need to collect dues and have a treasurer.

Plan Programs - People will be more willing to attend if there is a topic, agenda, and featured speaker on a career-related topic. Make sure to plan enough time for the presentation, questions, and networking. Potential speakers include people who can talk on trends in your industry, business reporters, résumé writers, career coaches, authors of books on career-related topics, HR managers, representatives of placement agencies, or headhunters. You can also have members share their expertise on what has worked, what hasn't, what they know about local companies, and so on. Make sure to build in some fun and activities to let the participants get to know each other on a personal level.

Set Expectations for and from Members - Each member should always bring a pen, paper, business cards, and possibly résumés. At each meeting, establish an understanding of the expectations of each participant, which may include constructive criticism only, respecting confidentiality requests, coming prepared, and honesty. You may also limit complaining to 30 seconds per person, before moving on to more constructive conversations.

Communicate within and about Your Group -Set up an email list, ACS Network group, Facebook group, or other means for your members to communicate between meetings. Encourage posting of openings, tips, etc., and publicity of the group to other people. You may or may not want to make the membership list public. Contact local media, as well as local companies, and let them know about your club. Media coverage means more employers will hear about your members.

Include Accountability - You may want to have a part of the meeting where each person reports on their progress since the last meeting, solicits advice, then makes a plan for what they will do before the next meeting. They can share the mini-successes too, such as setting up informational meetings, securing interviews, making new contacts, and so on. This reporting process creates personal accountability and encourages group members to set personal goals and meet them. If your group is large, you may want to break into smaller groups for this part of the program.

Resources for More Information - North Jersey Section of the ACS-Careers in Transition Group
www.njacs.org/careers.html

Meets the first Thursday of each month from 5:30 to 9 pm at Fairleigh Dickinson University in Madison. Topics covered at these free workshops include the latest techniques in résumé preparation, ways to improve a résumé, answers to frequently asked interview questions, and conducting an effective job search. There is a Dutch-treat dinner, and participants are encouraged to bring transparencies of their résumé so everyone can view and comment on it.

Articles - For Networking and Support, Join or Start a Job Club http://www.quintcareers.com/job_club.html
What is a Job Club?

<http://abcnews.go.com/GMA/JobClub/story?id=6121035&page=1>

How To Start a Job Club <http://abcnews.go.com/GMA/JobClub/story?id=6121092&page=1>

Transform Your Classroom with an ACS-Hach High School Chemistry Grant

The ACS-Hach High School Chemistry Grant is awarded to chemistry teachers with innovative ideas that transform classroom learning, foster student development, and reveal the wonders of chemistry. Applicants can request up to \$1,500 to support their ideas. Applications are due on April 1, 2010. Apply for the ACS-Hach High School Chemistry Grant today at www.acs.org/hach

JOBS!!! JOBS!!! JOBS!!!

Employers Are Looking to Hire: If You Are Looking for a Job, Register for the ACS Career Fair!

The Career Fair is the premier place where employers can promote their company and meet job seekers

face-to-face to discuss employment opportunities. Job seekers can attend a variety of workshops, participate in mock interviews, and make appointments for individual résumé reviews. The Career Fair will be located in the Moscone Center, West Hall, Level One. It will be held Sunday, March 21, 10 am to 5:30 pm; Monday and Tuesday, March 22-23, 8 am–5:30 pm; and Wednesday, March 24, 8 am–noon. Job seekers and employers can register at www.acs.org/careers.

Get a Jump on Your Career!

Save the dates for these informational webinars:

February 9: Job Search Strategies

February 16: Preparing Your Résumé

February 23: Effective Interviewing

Each webinar will be held on Tuesday from 1 to 2 pm (EST). Register now for these interactive sessions at www.acs.org/careers.

SEE the Future of Sustainability through Chemistry

The global challenges of providing sufficient and secure energy, clean drinking water, and adequate food, housing, and medical care will require the creative input of all of the planet's scientists. To address these challenges, ACS will host an innovative Sustainability Engagement Event (SEE) during the spring national meeting in San Francisco (www.acs.org/sustainability).

The event will help us to SEE this future. It will focus on collecting, refining, and implementing the ideas of a broad range of stakeholders, and on strengthening their engagement. The goals are to generate excitement about the ACS sustainability efforts; to brainstorm, create, and develop projects that can and will make a difference; and to connect with members of all ages and fields, especially those who are not currently engaged with ACS on a volunteer level.

The varied backgrounds and experiences of chemists inspire us in different ways to offer workable solutions at the local, regional, and global levels. Working together, ACS and chemists can identify the solutions that will help us achieve a sustainable future.

All meeting attendees and ACS members are invited to participate in the event forum. Even if you are not planning to be in San Francisco, you are encouraged

to share your ideas at www.acs.org/sustainability. The SEE kickoff will take place on Sunday, March 21 from 6 to 8:30 pm in the Expo Hall, and the forum will be on Tuesday, March 23 from 3 to 5:30 pm. Preregistration is requested for the forum, which is quick and easy at www.acs.org/sustainability.

Speak for Science

Less than 10% of the 535 members of Congress have backgrounds in science and engineering. Yet every day, legislators are asked to make important decisions that affect our nation's scientific enterprise. You and your committee members can help them make informed decisions by joining the ACS Legislative Action Network (LAN). The LAN is a Web-based political involvement program that gives you an easy, effective way to voice opinions on legislation effecting federal research to K–12 science education.

As you may know, for decades ACS has been a respected source of information and advocacy on Capitol Hill. Often this input is provided in formal testimony before committees and panels making decisions on spending and legislation relating to science and engineering. But just as important, members of Congress listen to their constituents and value their timely input. That's where you and your committee members can play a valuable role as members of the LAN.

Prior to key congressional decisions, ACS staff sends e-mail alerts to LAN members with background information, the analysis of the potential effect an issue would have on the scientific enterprise, and ACS's position. By clicking on a Web link, participants can go directly to the ACS Legislative Action Center, where they are given background information on the topic and a proposed message that can be easily personalized and sent directly to legislators—the entire process takes only a few minutes. It's free, simple, and done entirely via the Web. But more to the point, by participating in the LAN, chemists can impact federal policies critical to chemistry and our nation. Please register online at www.act4chemistry.org/register.cfm.

If you would like more information on the Legislative Action Network, please contact the ACS Office of Public Affairs at 1-800-227-5558, ext. 4386, or b_smith@acs.org. Participate and become your legislators' "face of science."