

THE OCTAGON



Volume 95, No. 8, November, 2012

Lehigh Valley Section of the American Chemical Society

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837th Meeting of the LVACS Lehigh University

“Sniffing Out a Different Career Path: An Overview of the Flavor and Fragrance Industry”

Thursday, 29th November, 2012

Joint Meeting of LVACS & LVAIChE,



The November 29, 2012, meeting will be a joint activity of the Lehigh Valley ACS Section and the Lehigh Valley Chapter of the American Institute of Chemical Engineers (AIChE) with the theme, “Sniffing Out a Different Career Path: An Overview of the Flavor and Fragrance Industry”

6:00 Social gathering/reception

6:30 Buffet dinner

7:30 Meeting and Presentation

Menu: A buffet dinner, *California Cuisine*, will feature *Wild Mushroom and Barley Soup, California Spinach, Candied Walnuts, Oranges and Goat Cheese with Honey Mustard Vinaigrette, Shrimp and Scallop Sourdough Strata with Fresh Herbs and Roasted Garlic, Grilled Lemon Thyme Chicken with Artichoke, Prosciutto and Basil Sauce, White and Wild Rice Pilaf with Leeks, Corn and Peppers, Mixed Roasted Vegetables Romesco, Assorted Rolls with Butter and Fresh Mixed Fruit Tart.*

Cost: Price for adult members of ACS or AIChE will be \$22.00, ACSstudent price will be \$11.00.

Reservations: Please place your reservation using this link:<http://tinyurl.com/1declvacsaiche> before noon, **Monday, November 26**. Please contact JoAnn DeSalvatore by email (jmd207@lehigh.edu) or phone (610-758-3471) with any specific questions.

Directions:

All events (social hour, dinner and the meeting) will be held in the Wood Dining Room of Lehigh's Iacocca Hall. Driving directions to Iacocca Hall on Lehigh's Mountaintop campus can be found at <http://www4.lehigh.edu/about/luevents/drivingdirections/mountaintopdirections.aspx>

Talk: *Sniffing Out a Different Career Path: An Overview of the Flavor and Fragrance Industry*

DuPont, Dow, Exxon-Mobil, Air Products...giants of the main stream chemical industry ...every chemist knows their names and their products. But what about Givaudan, Firmenich, IFF, Frutarom, Symrise, Sensient, Mane SA, Ungerer or Takasago? These far less famous firms from the flavors and fragrances side of our industry sold an impressive \$21.8B in "chemicals" in 2011 and issued paychecks to > 750,000 employees worldwide. Whether derived from cashews or from crude oil, from apples or from acetylene, from cranberries or from cresol, fragrances for a variety of consumer products such as body washes, bar soaps, fabric softeners, commercial detergents and designer candles are manufactured from natural and synthetic sources. The cutting-edge chemistry, the varied consumer products, and the current employment picture in the global flavors and fragrance industry are the subjects of this presentation.

Guest Speakers: Kimberly Freedman Kellow and Lou Lombardo

Kimberly Freedman Kellow completed a BS in Biology (1999) and an MS in Chemistry (2001) from Lehigh University with a research thesis on "Synthesis and Screening of Covalently-linked Fragrances and Antistatic Agents for Laundry Applications." After training as a perfumer with Firmenich in Switzerland she remained on their product development staff until she joined Takasago International Corporation in Rockleigh, New Jersey in 2011 as a Perfumer.

Lou Lombardo holds a BS in chemistry (1996) from Lehigh University and an MS in synthetic organic chemistry (1999) from Villanova University. Lou joined Takasago International Corporation in Rockleigh, NJ in 1999 as an entry-level scientist and is now a Senior Scientist in R&D at Takasago focusing on the synthesis and development of novel aromachemicals.

2012-2013 LVACS Meetings

January: January 22nd Webinar

"Pulling proteins apart on a computer: How and why?" , Rigoberto Hernandez, PhD.

February: Muhlenberg College- details TBA

March: High School Teachers' Night at DeSales – March 22, 2013

April: Student poster session at Cedar Crest College – details TBD

May: TBA

Message from the Chair

October brought two major news items to the Lehigh Valley: National Chemistry Week and Hurricane Sandy. With heartfelt concern, we wish a speedy recovery to all our membership, some of whom are still dealing with electrical outages and other storm-related issues. A brief tour of a local supermarket on Sunday, October 28, revealed yards of empty shelf space where bottled water had been earlier in the day. It reminded me how lucky we are to not usually have to worry about potable water, and for how many people in the world reality is very different. As ACS members we can easily help by joining the *Coins for Cleaner Water* initiative to provide water purifier packets to areas in need. More information can be found at <http://www.acs.org/cleanerwater>.

National Chemistry Week was celebrated with both innovative and tried-and-true events throughout the Section. Our student chapters were particularly active, and some of their wonderful contributions are addressed in this issue. We hope your event is featured, and that you will let us know about what other great plans you have. Our Public Relations Chair, Greglynn Gibbs, is always eager to bring events to the public eye.

The October meeting was held at Moravian College, where the first Volunteer of the Month Award for our Section was presented. Congratulations to the winner, Elaine Gannon from Muhlenberg College, for her outstanding contribution to the Section. Elaine's work organizing the Chemistry Olympics is also featured in this issue of the Octagon.

November is election time at LVACS! We are grateful for the members who stepped forward to run for office. As announced, this year our elections will be held electronically. Look for a link to vote in your email, to be provided shortly. You may also vote using the link provided in this issue of the Octagon. We look forward to increased participation with this new format.

We hope to see you at our next monthly meeting at Lehigh University in November.
Thanks for reading!

Lorena Tribe

ITS TIME TO VOTE!
LVACS Elections for 2013 Officers

This year in accordance with our new bylaws voting will be done electronically. Please use the following link to vote*:

<http://www.surveymonkey.com/s/82PKWSM>

The link will close on Nov. 27, 2012

A slate of candidates and biographical sketches are provided on the next page of the Octagon.

*You will also receive a link via email. Only your most recent vote will be registered.

2013 LVACS Candidates for Office

Chair Elect: Jeanne Berk
Secretary: Lindsey Welch
Treasurer: Roger Egolf and Carol Stein
Councilor: Carol Libby

Candidate Biographical Sketches

Chair Elect: Jeanne Berk

Dr. Jeanne Berk earned her B.S. in Chemistry from Miami University (Oxford, Ohio) and then moved to New Jersey where she continued her education earning her M.S. and Ph.D. in Physical Organic Chemistry, at Seton Hall University. Her research as a graduate student was based on a new class of polymers called Dendrimers, which she synthesized and then studied their physical properties in solution. She moved to the Lehigh Valley after graduate school and worked as an Adjunct Instructor at local Colleges and Universities until finally settling into a position at Lehigh University. There, Jeanne acted as their first Undergraduate Laboratory Manager, teaching and helping them redevelop their general chemistry laboratories into an inquiry based format. Jeanne left Lehigh in 2009 and joined the Cedar Crest community as an Assistant Professor to teach Organic Chemistry. Jeanne has been a member of the American Chemical Society since 1993, and is currently the Chair of the Awards Committee. She is very active in chemistry academic outreach programs having work for several summers at Lehigh as part of the STAR Program which enhances science, technology, engineering, and mathematics in K-12 schools and the Greater Allentown Math and Science Program which works with local middle school science teachers.

Secretary: Lindsey Welch

Dr. Lindsey A. Welch graduated with a doctoral degree in physical-inorganic chemistry in 2012 from Lehigh University in Bethlehem, PA. Her bachelor of science degree in chemistry is from Lycoming College (2006) in Williamsport, PA. Dr. Welch has held teaching positions across the Lehigh Valley at Lehigh Carbon Community College, Penn State Lehigh Valley, and Cedar Crest College. Currently, she holds the position of assistant professor in the Department of Chemical and Physical Sciences at Cedar Crest College in Allentown. Since moving to the area to begin graduate school, Dr. Welch has actively attended meetings of the Lehigh Valley chapter of the ACS. She has helped to plan the Iron Pigs baseball outing every summer. As secretary of the Graduate Student Senate at Lehigh University and through work at Cedar Crest College, Dr. Welch has experience with committee work and is motivated to contribute more time to our local ACS chapter as your next secretary.

Treasurer: Roger Egolf or Carol Stein

Roger Egolf

Dr. Roger A. Egolf is an Associate Professor of Chemistry, Penn State – Lehigh Valley. He earned his BS, with a major in Chemistry and Minor in Mathematics from Kutztown University in 1985. He was awarded his MS

(1987) and PhD (1990) from Lehigh University. Roger is interested in Medicinal Organic Chemistry and the History of Chemistry. He has extensive ACS leadership experience including: LV Section -Treasurer (1997, 2005, and 2012), Chair-Elect (1998), Chair (1999), Past Chair (2000), Councilor (2001-2003, 2009-2010), Alternate Councilor (2004-2008, 2011) and also in the Division of the History of Chemistry - Program Chair (1999-2004), Chair Elect (2005-2006), Chair (2007-2008), Past Chair (2009-2010), Councilor (2011- present).

Carol Stein:

Carol Stein earned her BS in chemistry with concentration in forensic science from Cedar Crest College and an MS in chemistry with a concentration in pharmaceutical bioorganic from Lehigh University. She is currently an analytical chemist at Copperhead chemical Co. Copperhead Chemical. The company is a major API manufacture of pharmaceutical nitroglycerin located in the hills of Tamaqua. In her department, Tamaqua Analytical Laboratory (TAL), she routinely tests to the compendial procedures and ASTM Standards. In 2007 she started as a laboratory technician and was promoted to chemist in 2010. She is currently in multiple leadership positions in her local community. Two of which are a youth group director at the local church and an assistant instructor Goshin Jujitsu martial arts at the local karate school where she is a first degree black belt.

Councilor: Carol Baker Libby

Dr. Carol Baker Libby is currently an adjunct professor at Moravian College. She earned her B.S. in Chemistry and Ph. D. in Organic Chemistry from The Pennsylvania State University. Her chemical expertise and interests are in advances in chemical education to improve student understanding of chemistry and also enzyme mechanisms and their biotechnological applications. Carol's previous ACS experience includes for LVACS: Councilor (2004-12), Alternate Councilor(2001-03); at the national level: Local Section Activities Committee (2004-2012), Committee on Minority Affairs (2010-2012), Women Chemists Committee (1990-2000). Carol's interest in continuing as Councilor is to make sure that even in these difficult economic times the ACS continues to provide individual members opportunities for professional growth and service. Also, it's more important than ever to educate the public, especially children, to appreciate the "transforming power of chemistry" (ACS's vision, see <http://strategy.acs.org>). Last August, she was elected by the Council to serve on the Committee on Nominations and Elections, which identifies candidates for ACS national offices and helps define ACS leadership policies. This committee service places her in a good position to continue to positively contribute to the ACS both at the national level and here in the Lehigh Valley.

**Please check out the LVACS Chemistry Olympiad page at the following link:
<http://www.lvacs.net/committees/chemolycom.html>**

LVACS Volunteer of the Month – Elaine Gannon

The 44th International Chemistry Olympiad is upon us. What? I must be mistaken, as the event does not take place until July 2013, so how can this be “upon us”? As with the majority of events of this caliber, there is no “time off”, activities are year-round, and requires the dedication of hundreds of volunteers. One of those dedicated volunteers is our own Elaine Gannon. I had the pleasure of speaking with her via phone, and she, indeed, has a passion for the Chemistry Olympiad.

Elaine is currently on the faculty at Muhlenberg College, where she teaches General Chemistry I & II. Previously, she was school director for the East Penn school district. The Chemistry Olympiad has been in Mrs. Gannon’s vernacular well before she became LVACS’ Coordinator / Chair in 2007; while at East Penn she saw this great opportunity for high school students to showcase their chemistry knowledge and interest. In addition, her own children participated, giving Elaine a wonderful, full-circle experience to naturally chair this organization for LVACS.

She expertly outlined the process to me during our discussion. I highly recommend review at the following link: http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_SUPERARTICLE&node_id=2273&use_sec=false&sec_url_var=region1&__uuid=c1d3e179-18c6-42d0-80e2-8846ca550703 Note, the rules, and also past exams, can be found within the above link.

Elaine and her team are contacting the local Lehigh Valley Section-area high schools, to encourage participation by as many students as possible. Each school sends two to next level of competition. How does Elaine do it? Well, she quickly acknowledged colleagues Winnie Russell and LuAnn Feist, who help in many ways from ordering material, organizing lab practicals and database logistics. Elaine handles the mailings, communications, networking and interactions with students and teachers. She and I agreed on this: a labour of love does not wait for the “right time” or “when I have more time”, since we never have “more time”, correct? What Elaine has done, is shown all of us in LVACS that passion for a cause will be placed into the full schedule. Kudos to her! At first, it was tough, learning the systems, organizing from past materials, updating the process for LVACS, etc. It is quite a bit of work. Elaine aptly noted that anything worthwhile is worth making the effort, and we certainly appreciate the efforts from her for so many years!

*What can we do as a section to help? First of all, say THANK YOU to Elaine and her colleagues for their dedication and passion for the Chemistry Olympiad. Without her efforts, we would not have representation at national and international levels.

*Next, let’s coordinate to keep the list of high school contacts up-to-date. Each year we run the risk of students missing out on this event because we do not have the correct contacts.

*Finally, we can work with Greglynn Gibbs, our most-trusted and talented Public Relations Coordinator, to fully and robustly publicize this event. Elaine has a plethora of summaries and information, and we will work with Greglynn to distribute via the Octagon, Facebook, LinkedIn, and local newspapers and radio stations as best we can. Our section has acknowledged the challenges in promoting such items via the local media. Any LVACS member with ideas? Please contact me! An especially important piece of publicity which we need to capitalize on relates to the students and their activities once the Olympiad has completed for their turn. Where are they now? Are they students at one of our academic institutions? Are they in the workforce? Are they still in chemistry, or

a chemistry-related field? If they are still in the Lehigh Valley, how can we encourage them to participate in LVACS? We have so many exciting opportunities, all from Elaine's labour of love.

Elaine is an inspiration. She has touched so many lives. She has permitted me to include two letters she received from students (no names are presented since we did not have time to acquire permission). Read these, and you will be inspired as well.

Dear Mrs. Gannon,

Thank you for the results and for your kind words. I've really learned a lot through Chem Olympiad that I probably would never have even touched otherwise. Our Lehigh Valley is fortunate to have such a dedicated coordinator as you.

Earlier this month, I competed in the Intel International Science Fair held in Los Angeles. I placed third in the Chemistry category, and also got an honorable mention from the ACS there. I just got my certificate from the ACS today and thought I'd mention it to you, since the Olympiad is part of the ACS too. Again I have to thank you for inspiring me to explore chemistry, which let me to pursue a project on contact lenses and protein interaction. I have attached a copy of my paper in case you are interested.

Thanks and have a great Memorial Day!

This letter was written by a student who made it to the National Level. He was unable to compete because he was interviewing at Harvard.

Hi Mrs. Gannon,

Hope you are well! I recently got your letter about the National Chemistry Olympiad - thank you for your help and support over the years. I feel that participating in the Chem Olympiad has really helped me both in academics and as a person.

I also wanted to let you know the weekend of April 20-22 I will be up at Harvard visiting and meeting several professors. Unfortunately this conflicts with the National Exam - I would try and move the visit but have a few appointments set up already. I apologize for this inconvenience, hopefully it gives some of my younger peers a chance - I heard Parkland had a fairly good representation this year. Thank you for

So, how can you make a difference in LVACS?

Respectfully Written,

Tara S. Baney, Ph.D, Chair-Elect, LVACS

LVACS Happenings

Student Chapter Award Recipients

The Society Committee on Education (SOCED) selects Student chapters to receive special recognition on the basis of their programs and activities, as described in their chapter reports. Awards are classified as outstanding, commendable, and honorable mention. Chapters that do not qualify for either of these awards receive a certificate of achievement for meritorious service.

For the 2011-2012 academic year, 46 outstanding, 81 commendable and 114 honorable mention chapters were named. Also named were 56 chapters that were recognized as “green chapters” for successfully completing green chemistry activities. The award-winning institutions in the Lehigh Valley Section are listed below:

Join us in congratulating these chapters for a job well done!

Outstanding Chapter Award Recipient
Alvernia University

Commendable Chapter Award Recipients
East Stroudsburg University of Pennsylvania
Penn State Berks

Honorable Mention Chapter Award Recipient
Muhlenberg College

Green Student Chapters Award Recipient
Alvernia University

Community Interactions Grant

Many studies point to the under-representation of minorities in the sciences. The Community Interactions Grant supports ACS Student Chapter projects and interactions that help improve the science learning experience of African American,

Native American, Hispanic/Latino and Pacific Islander students, as well as economically disadvantaged students, in grades K-12.

ACS student chapters are eligible to receive up to \$500 to support community interactions and projects. The ACS Undergraduate Programs Office awards ACS student chapters each year that provide K-12 minority students with enriched hands-on science activities and give ACS student members an opportunity to enhance their skills as future teachers and mentors.

Join us in congratulating another Lehigh Valley student chapter for a job well done!

Community Interaction Grant Student Chapter Award Recipient

Penn State Berks Chemical Society
Kristin Kamowski, Greglynn Gibbs
National Chemistry Week Kick-off Celebration at the Reading Public Museum

2012 Celebrates 25 Years of National Chemistry Week!

National Chemistry Week (NCW) encourages chemists and chemistry enthusiasts to build awareness of chemistry at the local level. This annual community-based program unites ACS local sections, businesses, schools, nonprofit organizations, and individuals in organizing and participating in events in their communities with a common goal: To promote the value of chemistry in everyday life. This year marks the 25th anniversary of the NCW program and a partnership with the Nanoscale Informal Science Education Network.

National Chemistry Week Events

Lehigh Valley Section Student Chapters were busy celebrating the 25th Anniversary of National Chemistry Week, October 21st thru October 27th. The

following is a listing of activities and programs each institution held.

Join us in thanking our student chapter for all of their hard work and a job well done!

Cedar Crest College

10/23 - Liquid Nitrogen Ice Cream Social 6-8pm (OBC Lounge)

10/24 - Element Cupcake Sale – All DAY (SCI lounge)

10/25 - Element Bingo – 9:45pm (Dining Hall)

All Week - find the Moles (Science Buildings)

Alvernia University Science Association

http://www.lvacs.net/alvernia_univ.html

<https://www.facebook.com/groups/101926433230172/>

10/22 – Guest Speaker Bohdana Discher

10/25 – Science Day with students from St. Peter’s School

10/26 – NCW Scavenger Hunt

Penn State Berks Chemical Society

<http://www.clubs.psu.edu/bk/chemsociety/>

<https://www.facebook.com/groups/134931513231469/>

10/21 – National Chemistry Week Kick-off at the Reading Public Museum

10/24 – Guest Speaker, Nigel Sanders (LVACS past chair)

10/25 – NCW Chemistry Corner at the Reading Public Library

10/27 – Girl Scout Nano-Saturday with the Girl Scouts of Eastern Pennsylvania

Student Chapters in the News

"Perception is reality." Positive news stories about chemistry and the work that LVACS members perform can improve public appreciation for our profession.

Please visit the following media links to find out how student chapters are forging the way in improving and promoting positive perceptions about chemistry.

Mad science spooks kids at Berks County Heritage Center

Originally Published: 10/29/2012

<http://readingeagle.com/article.aspx?id=423953>

Small elements open Chemistry Week

Originally Published: 10/22/2012

<http://readingeagle.com/article.aspx?id=422435>

Girl Scouting event at Alvernia promotes Latino membership, science

Originally published 10/6/2012

<http://readingeagle.com/article.aspx?id=419132>

Young students learn about science in college setting

<http://www.wfmz.com/news/Young-students-learn-about-science-in-college-setting/-/121458/16878642/-/i2803xz/-/index.html>

Author: Kevin Fitzsimmons, Web Producer, 69WFMZ

Published On: Oct 04 2012 08:00:00 PM EDT

Updated On: Oct 05 2012 06:57:17 PM EDT

National Chemistry Week with Penn State Berks

Originally broadcast September 26, 2012

http://www.bctv.org/special_reports/community/national-chemistry-week-with-penn-state-berks/vmix_0e006886-08a8-11e2-bfd8-0019bb2963f4.html

Tell us what you have been up to!

If you or another member have contributed to or been featured in a news story, please contact the Public Relations Chair, Greglynn Gibbs, gdw104@psu.edu.

We would like to recognize your contribution!

LVACS Officers - 2012

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Are you volunteering in your community? Do you have any upcoming chemistry or science events planned?

Help is available to help get yourself, your volunteers and your event spotlighted at your college and/or in the local and regional news. Contact the LVACS Public Relations Chair, Greglynn Gibbs, gdw104@psu.edu.

**Nothing says "Thank You" like well
deserved recognition!**