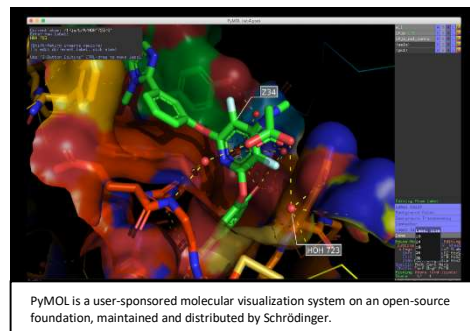

THE OCTAGON



February Section Meeting: Thursday, February 20th Moravian College Main (North) Campus



3D PRINTING OF MOLECULES WORKSHOP



Invited Speaker: Dr. Jeffrey Bush, Assistant Professor of Mathematics & Computer Science

Learn how to use PyMol to design and 3D print molecules and discover the importance of polymer properties in the 3D printing process.

You may even leave the meeting with a souvenir!

All events will take place in the Priscilla Payne Hurd Academic Complex (PPHAC) 1st Floor, Atrium & Room 114 on Moravian's Main (North) Campus

5:15 - 5:45pm Socializing, Hors d'oeuvres
5:45 - 6:30pm Dinner
6:30 - 8:00pm 3D Printing Molecules Workshop
8:00 - 8:30pm LVACS Business Meeting



Parking - Lots M, N, & O are available as well as street parking on Main St.

(https://www.moravian.edu/sites/default/files/pdf/New%20Decal%20Map%207-13-2017_0.pdf)

Hors d'oeuvres & Dinner: (\$25 Faculty/Industry Professionals, \$15 Students/Retirees/High School Teachers)

Please RSVP to Ann Sywensky (sywenskya@moravian.edu) for both meeting attendance and dinner by Monday, February 17th.



February Meeting at Moravian College

Hors d'oeuvre & Dinner Menu

Hors d'oeuvres

Grilled Onion & Smoked Gouda Quesadillas

Shrimp Ceviche

Tortilla Chips & Guacamole

Dinner - Burrito Loco Bar!

10-inch Pressed Flour Tortillas

Cilantro Lime Vegetarian Rice

Ranch Style Black Beans

Chicken Fajitas

Pork Carnitas

Sour Cream

Shredded Lettuce

Cheddar Jack Cheese

Salsas: Fire Roasted Tomato, Mango and Black Bean, Roasted Corn

Dessert

Assorted 9" Round Cakes

Gourmet Dessert Bars

Beverages

Ice Water, Lemonade, Sweetened Iced Tea, Coffee, Decaf Coffee

Please RSVP to Ann Sywensky (sywenskya@moravian.edu) for both meeting attendance and dinner by Monday, February 17th.

MEETING CONTACT:

Michael A. Bertucci, Ph.D.

*Assistant Professor, Chemistry
Moravian College*bertuccim@moravian.edu

(610) 861-1436

[The Bertucci Group Website](#)

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3. Spring 2020 Calendar

4. Phantoms Hockey Night
February 29th4. ACS PIB February 25th

5. March HS Teachers' Night

6. Student Poster Session April
15th6. Chemists Celebrate Earth Week
(CCEW) April 19-25

7. January Webinar Report

8. LVACS / Da Vinci Science Center
Partnership: coming events9. Spring 2020 National Meeting
and MARM 20/20

10. 2020 Executive Committee

Spring 2020 LVACS Events

February

Monthly Meeting: "3D Printing Molecules Workshop"

Moravian College, Bethlehem, Thursday, February 20th at 5:15 pm

CONTACT: Michael Bertucci [bertuccim@moravian.edu]



ACS Program-In-a-Box (PIB): "The Future of Food"

Cedar Crest College, Allentown, Tuesday, February 25th at 6:45 pm

CONTACT: Jeanne Berk [jrberk@cedarcrest.edu]



Special 'Leap Day' Event: Annual Lehigh Valley Phantoms Night

Come out and cheer on our defending Calder Cup Champions!

BUY TICKETS NOW: <https://fevo.me/americanchemical>

PPL Center, Allentown, Saturday, February 29th at 7:05pm

CONTACT: Kelley Caflin [caflinacs@yahoo.com]



March

Monthly Meeting: Joint LVACS/AACT High School Teachers' Night

Muhlenberg College, Allentown, Monday, March 16th at 5:30 pm

CONTACT: Gail Marsella [gailmarsella@muhlenberg.edu]



April

Monthly Meeting: Annual LVACS Student Symposium / Poster Night

DeSales University, Allentown, Wednesday, April 15th at 5:00 pm

CONTACT: Sara Hayik [sara.hayik@desales.edu]



Chemists Celebrate Earth Week April 19-25 "Protecting Our Planet Through Chemistry" (50th Anniversary of Earth Day)

Annual Chem Club Events and Poetry Contest, dates/details TBA

CONTACT: Lindsey Welch [lawelch@cedarcrest.edu]



Special Event: Joint LVACS/Da Vinci Leonardo Society talk "Chemistry and Art" (Mary Virginia Orna)
Venue/date/details TBA

CONTACT: Nigel Sanders [nigel53.sanders@gmail.com]

Special Event: Da Vinci Science Center Hall of Fame Awards Gala / Grand Maestro Award to LVACS
ArtsQuest Center, Bethlehem, April 25th, 5:30-9:30 pm

CONTACT: Nigel Sanders [nigel53.sanders@gmail.com]



May

Monthly Meeting: Annual LVACS & ACS 50/60-year Awards & Fun Night

Venue/date/details TBA

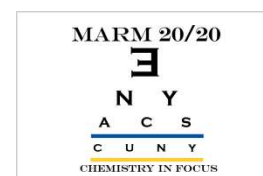
CONTACTS: John Freeman [jcf2@rcn.com] and Lorena Tribe [lut1@psu.edu]

June

Regional Event: Mid-Atlantic Regional Meeting (MARM) "Chemistry in Focus"

City University of New York, NYC, June 12th

CONTACT: Brian Gibney [bgibney@gc.cuny.edu]



WANT A CHANCE TO RIDE THE FANBONI?

Join us on Saturday, February 29th at 7:05pm (Leap Day!!) at the PPL center in Allentown for our annual ice hockey game night. If we purchase 20 tickets FIVE lucky people get a ride on the FANBONI!



So... come on out and cheer on our defending Calder Cup Champions the Lehigh Valley Phantoms!

Get your tickets with this link:

<https://fevo.me/americanchemical>

CONTACT:

Kelley Caflin [caflinacs@yahoo.com]



ACS PROGRAM-IN-A-BOX DISCUSSES "THE FUTURE OF FOOD" AS WE APPROACH THE 50TH ANNIVERSARY OF EARTH DAY

Tuesday, Feb. 25th at 6:45pm, Cedar Crest College

Food impacts many of the direst problems facing humanity: health, sustainability, global warming, poverty and inequality.

Join Professor Joseph "Jody" Puglisi, Jauch Professor in the Department of Structural Biology at Stanford University and Head Scientific Advisor to Beyond Meat, for a **discussion of the chemistry behind new plant-based alternatives to animal meat** and how these innovations could help address these global challenges.



Joseph "Jody" Puglisi, PhD
Stanford Professor and
Scientific Advisor to Beyond Meat

- A live interactive video webcast hosted by Kerri Jansen, Assistant Editor at C&EN, featuring food chemistry presentations and Q&A with the experts.
- Be the first to bust our "Food Myths Trivia" on Twitter with #ACSPIB to win a prize and get a shout out live on-air!
- Meet thousands of fellow professionals around the world on Facebook, Twitter, and Instagram by posting with the event hashtag #ACSPIB

Celebrate the **50th Anniversary of Earth Day in 2020** by joining a free and easy interactive science event in our community!

CONTACT: Jeanne Berk [jrberk@cedarcrest.edu]

LVACS AND AACT CELEBRATE OUR HIGH SCHOOL TEACHERS ON MARCH 16th

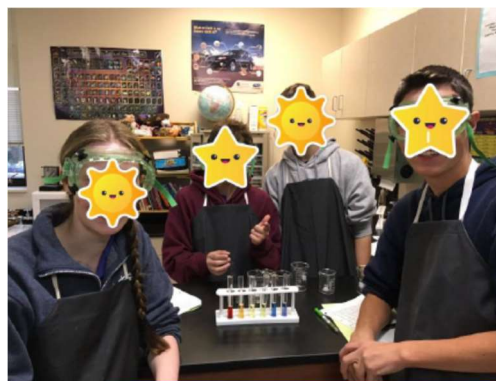
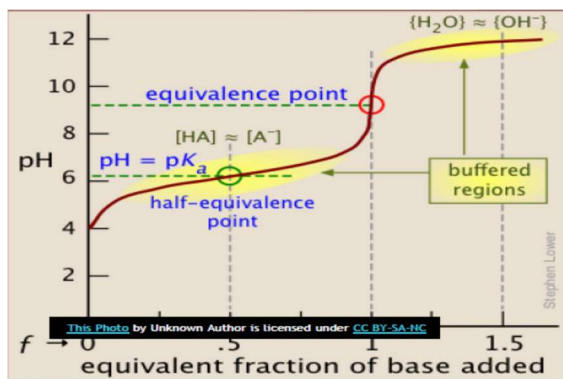
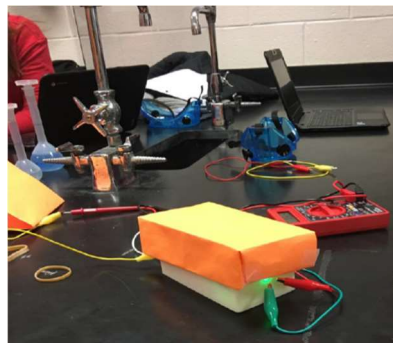


This event, joint with American Association of Chemistry Teachers, is scheduled for March 16th beginning at 5:30 pm at Muhlenberg College, home of the Lehigh Valley section's annual Chemistry Olympiad competition! There will be dinner followed by a program consisting of HS chemistry lab demonstrations and a speaker from AACT discussing current teaching needs and resources.

Professor Gail Marsella of Muhlenberg, Chem Olympiad Coordinator, Jeremy Heyman of Northampton Community College, ACS Project SEED coordinator, and Heather Weck, President of the American Association of Chemistry Teachers (AACT) invite all High School chemistry/science teachers to learn about the resources available to them through the ACS, the LV section, the AACT and other local area organizations.

Themes and activities around teaching High School chemistry include:

- lab demonstrations (e.g. Honors/AP level suitable for HS lab periods)
- curriculum planning
- lab safety and/or chemical disposal
- lab teamwork/roles
- teaching chemistry as a language (holistic approaches)
- diagrammatic techniques to aid understanding (of reactions, etc.)
- ACS Chem Clubs
- ACS Chem Matters Magazine
- National Chemistry Week (NCW)
- Chemists Celebrate Earth Week (CCEW)
- Chemistry Olympiad
- ACS SEED Program
- teachchemistry.org (AACT) resources
- Lehigh Valley section (LVACS) resources
- National ACS resources and workshops
- Chemistry for special populations (e.g. ESL)
- Chemistry-related career discernment aids



CONTACT: Gail Marsella [gailmarsella@muhlenberg.edu]

ANNUAL UNDERGRADUATE RESEARCH POSTER SESSION AND UNDERGRADUATE SENIOR AWARDS DESALES UNIVERSITY, CENTER VALLEY, WEDNESDAY, APRIL 15TH 5:00 PM



Lehigh Valley section undergraduates: are you doing research you'd like to talk about?

Here's your chance! This annual event, sponsored by the Lehigh Valley ACS section, will begin with a poster session focusing on undergraduate research. Poster presentations will be by students of the research they have performed with their faculty mentor. After dinner, awards will be announced for the best posters and for the top graduating seniors from our Lehigh Valley section colleges.

Social Hour:

5-6pm (poster session/light refreshment)

Dinner:

6-7pm (Italian themed with a vegetarian option)

COST: \$30 for full members, \$15 for students, retired, and unemployed

Meeting:

7 pm (section business and awards)

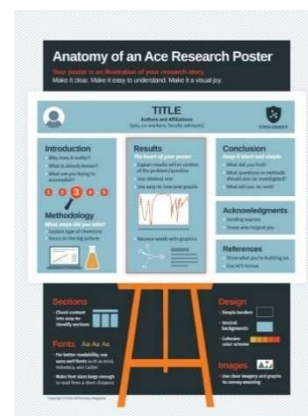
RSVP deadlines: [April 10, 2018 for abstracts](#),
[April 13, 2018 for dinner](#)

CONTACT: Sara Hayik, DeSales University [sara.hayik@desales.edu]

Register/RSVP at <https://forms.gle/ejux8JTMM5k5ETNT8>

DIRECTIONS TO CAMPUS: <http://www.desales.edu/home/about/directions>

PARKING: Available at the University Center, Hurd Science center, or the Gambet Center



START PLANNING NOW FOR CHEMISTS CELEBRATE EARTH WEEK 20/20 !

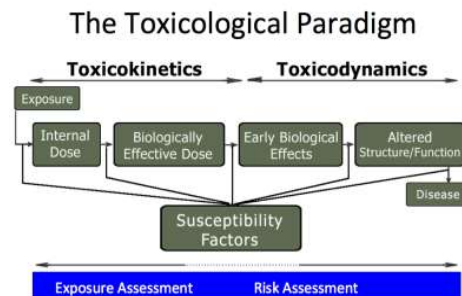
For more information, contact our CCEW coordinator, Lindsey Welch of Cedar Crest College

lawelch@cedarcrest.edu

CCEW will run from April 19-25, 2020 and heralds the 50th year since the first Earth day in 1970. The theme of Earth Day, April 22, 2020 is Climate Action and incorporates a number of initiatives including Earthrise and The Great Global Cleanup.



January Webinar: “CHEMICALS AND HEALTH”



The first LVACS event of 2020 got underway online January 23rd at 3:03 pm EST with the speaker and host, **Dr. Megan Latshaw of the Bloomberg School of Public Health**, introducing the topic: **Chemicals and Health**. (<https://www.jhsph.edu/faculty/directory/profile/1708/megan-weil-latshaw>). Megan began by mentioning that through her work with public health organizations such as APHA and as an MOOC (Massive Online Open Course) teacher she often finds a degree of chemophobia (irrational fear of chemicals) which can get in the way of any reasoned discussion of what the public needs to know about the impact of chemicals in our environment on their health. Thus, it is helpful to begin talking about chemical toxicity from fundamental concepts such as the effect of exposure. From Paracelsus’ ‘The dose makes the poison’ to Hill’s 9 Causal Criteria of epidemiology, there is a need to define and then understand the process by which any chemical toxin in our environment may cause harm.

Toxico-kinetics studies the rates controlling a chemical’s absorption, distribution, metabolism and storage/excretion. There are, in fact, many different types of toxicity endpoints to consider. The Toxicological Paradigm assumes that toxico-kinetics leads ultimately to toxico-dynamics where metabolized and stored toxins may, over a short or long time, lead to disease. Epidemiology considers the same basic beginning and endpoint but through different kinds of stages (e.g. exposure-susceptibility-disease). Both approaches strive to reach the same key relationship: Exposure-Response. Hill’s Causal Criteria are nine tests to be applied to any candidate exposure-response relationship to assess whether its association is causal: Strength, Consistency, Specificity, Temporality, Biological gradient, Plausibility, Coherence, Experiment and Analogy). Megan then presented a number of cases where application of Hill’s Criteria show clear relationships between diseases and specific chemical agents. She also pointed out some very troubling highlights from this data: more people die from exposure to air pollution than malaria and HIV combined, especially in lower/middle income groups.

The remainder of the webinar was focused on the role of law and regulation. So, as well as a Toxicological Paradigm, there is also an Environmental Health Paradigm. The original set of chemical regulations enacted by the US Congress in 1976, TSCA, had a critical tenet: “existing chemicals are presumed to be safe and do not require any review.” In other words, the agencies had to prove that a chemical causes harm before it could be regulated (unlike drugs). In addition, “new chemicals” did not have to undergo any testing until the propensity for harm could be shown by tests yet to be identified! This type of ‘Catch-22’ regulation has existed up until 2016 when a reform bill was passed to align US policies more closely with EU standards. The Lautenberg Chemical Safety Act provides for specific testing of new chemical additives. A new approach to exposure measurement made possible by advanced analytical methods is Biomonitoring. In contrast with the conventional Indirect Exposure Assessment, Biomonitoring tracks actual organism toxin content (e.g. blood Hg levels- see CDC data). Other frontiers for toxicology and epidemiology include the distinct impact of nano-scale chemicals (exposure more related to surface area than to mass of chemical), non-targeted analysis and the impact of complex mixtures of chemicals.

To see and hear a recording of Megan’s webinar, visit the following link:

https://jh.zoom.us/rec/share/20h1bIPQyVNOboWV9EbWZLV_T5jPT6a80XAWr_oMzsfxfW41Mlim19L2RG3QvDU

Many thanks to George Ruger, chair, for inviting Megan to address the section and for organizing the webinar!



WISE Forum March 18th

Da Vinci Science Center Activities Grand Maestro Award to LVACS



Made-in-America
Career Fair March 4th-6th

The Da Vinci Science Center has been ‘bringing science to life and lives to science’ since 1992 and has occupied its current site on the campus of Cedar Crest College since 2005. Over the past five years, Da Vinci has grown to be a major contributor to the region’s Informal Science Education (ISE): 29,025 participants in educational programs while visiting the Science Center; 12,823 enrolled in workshops at the Science Center; 3,957 participants in summer camp; 35,642 participants in educational outreach programs at school and community sites and 600 teacher days of training. To continue to grow, DSC is planning the development of a new center in downtown Allentown by 2023. Inspired by the works of Da Vinci himself, the vision for the new center, “Driving Curiosity,” will provide a distinct regional venue that encourages visitors to be curious and think like Leonardo by being active participants in their learning and connecting STEM with the Arts.

Da Vinci hosts an annual series of career discernment exhibitions/workshops for the public and especially focusing on student groups from middle and high schools in the region. The next scheduled event is the **“Made in America” career fair, March 4th-6th from 10-2 at The Da Vinci Science Center**, focusing on the future of engineering, manufacturing, coding, and transportation technology careers. Past exhibitors include LVACS along with local colleges and companies such as B. Braun, Crayola and ATAS International. Your section will once again be participating and this is a great opportunity to reach out to our local community to share your experiences in a chemistry career! More information: <https://www.davincisciencecenter.org/experience/made-in-america-career-connection-days/>

On Wednesday, March 18th, the WISE Forum, co-sponsored by the Women In Science and Engineering (WISE) network, will be held from 5-9 pm at The Center at Holiday Inn Lehigh Valley, 7736 Adrienne Drive, Breinigsville, PA 18031. The Forum brings together female high school students; faculty and students from area universities and colleges; and accomplished women from the STEM fields (science, technology, engineering, math). The first half of the evening consists of a Mentoring Dinner where attendees can network with each other. This is an opportunity for students with an interest in STEM to talk one on one with and receive advice from female professionals and college students. Following the dinner is a Public Panel Discussion featuring a panel of female distinguished STEM professionals from across the country **including this year’s Miss America, Camille Schrier**. More information: <https://www.davincisciencecenter.org/wise-initiative/wise-forum/>

The Da Vinci Science Center has bestowed its Hall of Fame Awards annually since 1999 to students who show a unique passion for science, educators who inspire enthusiasm for science with innovative approaches, professionals and companies who bring science to life every day, and partners who support the Center’s mission. **This year’s awards gala will be held April 25th from 5:30 until 9:30 pm at the ArtsQuest Center at SteelStacks in Bethlehem.** The Grand Maestro Corporate Award is being awarded this year to the Lehigh Valley Section of the American Chemical Society as a Da Vinci Science Center partner in recognition of its substantial contributions to the scientific community and the Center. All LVACS members should be proud of this signal honor!

For more information about LVACS activities at Da Vinci contact Nigel Sanders [nigel53.sanders@gmail.com]



ACS
Chemistry for Life®

NEWSLETTER OF THE LEHIGH VALLEY SECTION
OF THE AMERICAN CHEMICAL SOCIETY

FEBRUARY 2020
VOL. 103, NO. 2

SPRING 2020 ACS NATIONAL MEETING IN PHILLY !!



Register at: https://www.acs.org/content/acs/en/meetings/national-meeting/registration/pricing.html?sc=191126_mtg_em_PH20_od

EXCELLENT STUDENT AND TEACHER PROGRAMMING: Sunday, March 22nd and Monday, March 23rd
<https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/student-program.html>
<https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/teacher-programming.html>

Lehigh Valley Area Companies: Be A Meeting Exhibitor!

<https://www.acs.org/content/acs/en/meetings/national-meeting/exhibitors.html>

Small Companies can receive a discount through the ACS Division of Small Chemical Businesses (SCHB)

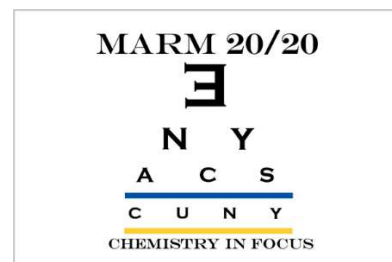
CONTACT: George Ruger (gruger04@yahoo.com)

**THE NATIONAL MEETING IS CLOSE BY THIS TIME AND MANY OF OUR NEIGHBORS
WILL BE ATTENDING, SO TAKE ADVANTAGE OF A GREAT OPPORTUNITY TO
LEARN AND NETWORK WITH YOUR FELLOW CHEMISTS!**



ACS Local Section
New York

**SAVE THE DATE !
MARM 20/20 IN NYC:
JUNE 12TH 2020 AT CUNY
CONTACT: Brian Gibney
[\[bgibney@gc.cuny.edu\]](mailto:bgibney@gc.cuny.edu)**



LEHIGH VALLEY SECTION OF THE AMERICAN CHEMICAL SOCIETY
2020 EXECUTIVE COMMITTEEOFFICERS

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