

# THE OCTAGON





## EH&S WEBINAR EVENT THURSDAY, JANUARY 23<sup>RD</sup> 3:00-4:00 PM



The Chemical Revolution Transforming and Challenging Society Megan Latshaw, Asst. Scientist, Johns Hopkins Bloomberg School of Public Health

Chemistry transforms our world daily. The field of toxicology has not kept up and our knowledge regarding the health effects of new chemicals lags behind. Dr. Megan Latshaw will talk about different policy approaches and how changes in public health might impact ACS members (green chemistry, need for new methods, Tox21). Other topics include how the chemical revolution has transformed society and comparing EU to US in policy approaches.

Bio: Megan Latshaw, PhD, serves as the Director of two master's degree programs in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health. She also serves as chair of the American Public Health Association's Intersectional Council Steering Committee. <a href="https://www.jhsph.edu/faculty/directory/profile/1708/megan-weil-latshaw">https://www.jhsph.edu/faculty/directory/profile/1708/megan-weil-latshaw</a>

#### **Evaluation Metrics Desired State Current State Tools and Guidance Health-Informed Practice Environment** Health Impact · Zoning that permits mixed-use, high-density ↑ Ambient air Assessment (HIA) development quality · Public Health Tracking · Investment in parks, greenspace, waterfronts ↑ Indoor air quality · EPA EnviroAtlas and C-• Cross-sectoral planning for disaster to poor community design ↑ Water quality FERST preparedness included in built Public health is disengaged **↓** Noise · Cumulative Risk Healthy housing requirements · Limited car use in urban centers (eg, tolling, Assessment **Behaviors** congestion pricing) ↑Physical activity Complete streets requirements ensuring safety Aging, substandard, ↑ Healthy diet for pedestrians, cyclists, and drivers Cross-sector ↑Social capital · Investments in transit systems Sprawl (eg, low-density Collaborators • Investments in power grid to support use of development) City/regional planners Health Architects ↓ Cardiovascular Landscape architects disease · Developers and builders ↓ Respiratory Small businesses disease • Housing agencies ↑ Mental health Integrated public · Parks and recreation Internships for public Transdisciplinary ↑ Safety Civil society health students in other approaches to ↓ Heat-related · Transportation planners, evaluate the health sectors illness and mortality Reliance on polluting Reliance on renewable engineers, and agencies · Training in outreach, impacts of huilt **↓** Obesity Elected officials communication, and environment policies ↓ Asthma Sustainable, local food · Community and Advancement of citizen science ↓ Cancer nongovernmental · Policymaking and quantitative methods organizations evaluation processes

https://journals.sagepub.com/doi/10.1177/0033354918798809

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# "The Octagon Newsletter is dead...."

Fear not, faithful Octagon readers! Your favorite newsletter has not gone the way of innumerable extinct terran species but lives on and will continue to adapt to changing media times in its second century of publication history. In these 102+ years as the journal of record for the Lehigh Valley section, the Octagon has brought LVACS members a lively combination of news of coming events, reports of past events and a variety of items of wider interest to chemists such as ACS National and International activities as well as just plain cool science!

What <u>is</u> true is that all ACS-hosted local section websites were taken off-line by ACS in May of this year and we are only now in the final stages of launching a new site. On top of that, our long-time newsletter editor and webmaster, Michelle Jones-Wilson, resigned from those roles. Thus, we have had no convenient means nor location to post full Octagon documents and have been getting by with periodic, short e-newsletters and social media posts.

The good news is that we are hoping to publically launch the new website as lvacs.net soon. In the meantime, we would like to hear from you! What have you enjoyed about the Octagon Newsletter in the past and how you would like to receive reports of your section's activities in the future. In addition, let us know what you'd like to see in the new website and in our social media pages: current section events/activities, contacts in the section for your areas of interest, reports from our councilors on important National Society actions and ACS programs you may wish to participate in. Your section sponsors a full schedule of activities throughout the year with a wide range of topics and venues (see p. 2). Take the time to become involved and help our community through chemistry!

Nigel Sanders, LVACS secretary/Newsletter Editor

#### In This Issue...

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#### Spring 2020 LVACS Events

#### January

Special Event: EH&S webinar - The Chemical Revolution Challenging Society Megan Latshaw, Asst. Scientist, Johns Hopkins Bloomberg School of Public Health

Thursday, January 23rd 3:00-4:00 pm

**CONTACT:** George Ruger



#### **February**

Monthly Meeting: "3D Printing"

Moravian College, Bethlehem, date/details TBA

CONTACT: Jeff Bush/Michael Bertucci

Special "Leap Day" Event: Annual LVACS / 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



#### March

Monthly Meeting: Joint LVACS/AACT High School Teachers' Night Northampton Community College, date/details TBA

**CONTACT: Nigel Sanders** 



#### **April**

Monthly Meeting: Annual LVACS Student Symposium / Poster Night

DeSales University, Allentown, date/details TBA

CONTACT: Sara Hayik



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

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

**CONTACT: Lindsey Welch** 



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

Venue/date/details TBA **CONTACT: Nigel Sanders** 

Special Event: Da Vinci Science Center Hall of Fame Awards Gala / Gran Maestro Award to LVACS

ArtsQuest Center, Bethlehem, April 25th, 5:30-9:30 pm

**CONTACT: Nigel Sanders** 



#### May

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

Venue/date/details TBA

CONTACTS: John Freeman and Lorena Tribe

Open for Exaciting Possibilities

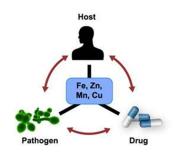


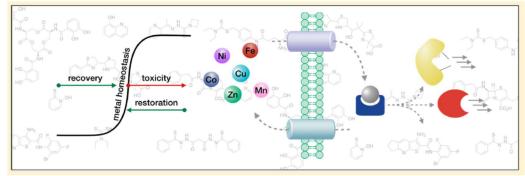


#### MARVELOUS METALLIC TIMES DURING NATIONAL CHEMISTRY WEEK 2019

LVACS chemists celebrated National Chemistry Week (NCW), October 20-26, 2019, in many ways including fairs, exhibitions and demonstrations by our Student Chapters. This year's week was punctuated by a special edition of ACS popular Program-In-a-Box (PIB) which played live in several campus locations around the section teaching us about the many roles of metals in biochemical systems. Professor Thomas J. Meade defined molecular imaging, what it can currently do in the clinic, and how his "bioactivated" or "conditionally activated" probes could revolutionize how we diagnose and even treat patients during the diagnostic phase while Professor Vy Maria Dong discussed the importance of organic chemistry processes to the industries that power modern society and how she is using metals to create improved reagents, catalysts, and strategies for a more sustainable and greener future.

The Mole Day section meeting started at exactly 6:02 pm (!) with dinner, business and a special speaker from Duke University, Kathy Franz, who presented her outlook on the role of metals in medicine: "Infectiously Inorganic: A Metallocentric View of Antimicrobial Activity." The focus of this talk was the concept of metal homeostasis: how living cells adapt to the metal concentrations in their environment to avoid being either starved or poisoned by too-low or too-high specific metal species activities. Much of Kathy's group researches Cu-based systems, although consequences for other metals (Fe, Mn, Zn) are frequently characterized as well. Most of the work discussed has appeared in a featured article [Hunsaker and Franz, Inorg. Chem. 2019, 58, 13528–13545]. More recent studies of Fluconazole inhibition of C. Albicans were also noted from a contribution to the themed issue of JCS Dalton Transactions "The central role of the d-block metals in the periodic table" [Hunsaker & Franz, Dalton Trans., 2019, 48, 9654-9662].







#### MARVELOUS METALLIC TIMES DURING NATIONAL CHEMISTRY WEEK 2019



LVACS members and Albright students kicked-off the week October 19<sup>th</sup> with demonstrations and hands-on experiments for visitors to the Da Vinci Science Center in Allentown. In Da Vinci's Inquiry Island demonstration space, kids and their parents learned about what pennies are actually made of using Archimedes' principle, did some simple chemistry to make pennies shine and practiced comparing observations to differentiate the metals from other elements in the periodic table. Kids were challenged to build their best aluminum boat (record was 32 penny capacity). Albright students Shaun Hange and Kyle Smith "illuminated" the space with magnesium combustion coupled with some sound effects from exploding hydrogen bubbles as calcium reacted with soapy water.

Penn State Berks Chemistry Club had a week's worth of events including a Mole Day Scavenger Hunt (aka "The Hunt") using the e-Hunt Goose Chase app throughout the PSU/Berks campus. For public outreach, the club unveiled their Alchemist's Tent at the Berks Fall Fest and performed exciting demonstrations and guide fun Family experiments featuring "Marvelous Metals" during their "Chemistry is for Halloween!" show in Spring Township.



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#### MARVELOUS METALLIC TIMES DURING NATIONAL CHEMISTRY WEEK 2019

### What was your "Big Event" for NCW 2019?

Student Chapters are invited to submit entries in the... 1st annual NCW Grand Challenge Award Competition!

Please submit a one page narrative that addresses the following criteria: How did the activity significantly incorporate the national NCW theme? How did the activity Communicate Chemistry's Value?

How did the activity present the LVACS as a resource to the community? How did the activity reach the outside community (public involvement)?

How did the activity involve most or all of the chapter members?

How did the event benefit the chapter in a special way?



SUBMIT ALL ENTRIES TO NIGEL SANDERS, LVACS SECRETARY, nigel53.sanders@gmail.com by January 31, 2020. Awards will be announced at the April 2020 section meeting.

### \*\*\*\*\*LVACS ELECTION REPORT\*\*\*\*

The results are in! Our new 2020 section officers are: Roger Egolf, chair-elect, Nigel Sanders, secretary and Tesia Chciuk, treasurer. Continuing officers are George Ruger, chair and Denise Beautreau, past chair. No councilors were up for election this year so they remain: Jeanne Berk, Kelley Caflin, Lorena Tribe (alternate) and Celia Williams (alternate). Congratulations to our 2020 section executive committee and thanks to our nominating committee: George Ruger, chair, Jeanne Berk, councilor, and Greglynn Gibbs for putting together the ballot!

#### LVACS WINS ACS AWARDS AND LOCAL RECOGNITION

Your local section has been receiving numerous acknowledgements over the past six months with two ACS awards and the announcement of the Da Vinci Science Center's annual 2020 Hall of Fame Gala awards. In early June, LVACS won the Partners for Progress & Prosperity Award at the 2019 MARM in Baltimore. This regional award recognized our partnership with Da Vinci Science Center in bringing STEM education and career mentoring to local K-12 students. At the August Fall National ACS Meeting, LVACS received the Senior Chemist Committee's Most Innovative Activity in a Local Section for Senior Chemists ChemLuminary Award for its MEET presentation during the Nano-MARM meeting held at Lehigh University in June 2018 (see photos). Finally, The Da Vinci Science Center has named LVACS as its 2020 Grand Maestro Award winner which honors "a Da Vinci Science Center partner in recognition of its substantial contributions to the scientific community and the Center."





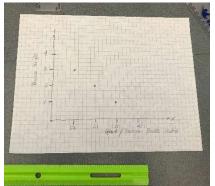
#### Idea Lab Students Practice Innovation and Invention with LVACS Chemist-Mentors

Through an ACS Innovative Project Grant awarded to the Lehigh Valley section in partnership with the Da Vinci Science Center, six LVACS members supported Da Vinci's Idea Lab fall 2019 program of science innovation. With 20 middle-school students, the program used the scientific method to teach kids how to test ideas and perhaps turn them into inventions. At each session, a local inventor told the kids about their innovation/invention story: Carl Zvanut, Engineers Without Borders (solar-powered water pumps), Keith Allison, Crayola (color and polymer chemistry), Ambrose Cavalier, Inventors Lab alum (CAD/CAM) and Pat Kelley, Waste Not Technologies (recycled plastics). Students learned how to use the SCAMPER ideation tool as well as a wide variety of prototyping skills including measuring/graphing, circuit soldering, TinkerCAD design and 3D printing. The semester wrapped up on December 8th with three chemistry challenges: make a "bouncier" golf ball, determine the CO<sub>2</sub> content in Pop Rocks candy and make soap 'the old-fashioned way' from tallow and lye.



Kelsey Patterson, Gail Marsella, Nigel Sanders, Carl Salter, Jim Batug and Pat Pietrobon take a break from an afternoon of mentoring the Idea Lab students.

Pat Kelley of Waste Not Technologies talks about making useful products from recycled plastics as Kate Heflin, Idea Lab Program Director looks on.



Rebound data plot vs. PVA/borax ratio



Making soap



Volume of CO<sub>2</sub> in Pop Rocks



Weighing out rubber components





# Da Vinci Science Center's Career Connection Days



The Da Vinci Science Center on the campus of Cedar Crest College 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 first event for the year, co-sponsored by the Women In Science and Engineering (WISE) network, was held November 13-15. 391 students met with 13 exhibitors including Evonik, B Braun, Orasure and ThermoFisher. Healthcare Connections, Jan. 15-17, 2020, will address opportunities in medical careers while Made in America, March 4-6, 2020, will focus on the future of engineering, manufacturing, coding, and transportation technology careers.

#### Exploring Your Horizons ACS Career & Networking Night at Penn State Berks

The Penn State Berks Chem Society ACS Student Chapter hosted the September 19<sup>th</sup> LVACS section meeting with the theme of facilitating interaction between professionals and students aspiring toward chemistry-related careers. There were two speakers: Michael McLaughlin of Eurofins Lancaster Labs and James Cinelli of Liberty Environmental, Inc. Mike is a biochemist who manages a



research and analysis group working mainly in the "pharma upstream" (developing materials and processes to make a drug prior to clinical trials) but is also part of a wider effort providing services to sectors including environmental testing. Besides giving details of his own career path, Mike emphasized the kinds of hard and soft skills needed to be successful in the industrial sector today, especially job flexibility and understanding key business imperatives such as working in a Lean Practices environment.

James presented his experience as an example of a career path moving from working for a company to owning the company. Working in the environmental consulting field, James used his engineering background to learn the basics of environmental pollutant remediation and then position himself to branch out into the business side and eventually start his own firm. He also mentioned a more recent venture of his: starting a regional science center (Reading Science Center) due to open in early 2020.

The speakers fielded many questions from the 40 attendees ranging from practical job hunting skills to planning a career pathway. The meeting organizer, Greglynn Gibbs of PSU/Berks, an ACS

Career Consultant, offered resume writing advice to interested attendees.



#### LVACS MEMBERS HEAR ABOUT TECHNOLOGY VENTURING AT "INDUSTRY NIGHT"



On October 10<sup>th</sup>, members visited the Ben Franklin Technology Partners of Northeastern PA's start-up company incubator, TechVentures, occupying 130,000 ft² on the Lehigh University campus. There were two speakers: Anthony Durante, Manager of Entrepreneurial Support of BFTP and Jiten Dihora, VP Technology of TRuCapSol, LLC, a TechVentures start-up company.

Anthony gave the members an overview of Ben Franklin Technology Partners, a PA government-sponsored organization dedicated to reducing the risk gap between lab and production for small companies and speeding commercialization of new technologies to benefit business revenue and employment in PA. He emphasized the differences between start-up and established companies as not just a matter of size. Levels of problem-solving, commitment, execution and flexibility are critically higher in a successful start-up. To sharpen focus and mitigate risk, Anthony and the BF staff work with fledgling entrepreneurs to craft their business case and investor pitch through a unique analysis of customer demand and competitive situation.

Jiten then presented the story of TRuCapSol, LLC as an example of a TechVentures incubator company. The concept grew out of a long-established company, Spray-Tek, also located in Bethlehem. The need was for a rational approach to the formulation of emulsions for spray-drying production of microcapsules. This got them started looking at IP "white space" (where there were as yet no formulation patents by incumbent companies such as carbonless paper coaters) and problems which existing IP was NOT solving such as alternatives to plastic capsules which were being scrutinized as environmental pollutants. The microencapsulation markets targeted (outside of pharma, which was not considered) are industrial products (coatings) and consumer products (laundry, food). These customers generally desire to convert a liquid active product to a solid particulate form while protecting the active and controlling its release. There are three basic ways to achieve these properties by microencapsulation: core/shell (liquid or sponge core), porous matrix and surface functionalization. Jiten concluded by showing SEM pictures of these microcapsule products and some measurements of their release properties.



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#### Councilors' Report from the American Chemical Society 258th ACS National Meeting, San Diego, California, August 25-29, 2019

#### Actions of the Council

Election Results: Elected Committees of Council: By electronic ballot, the Council elected Anne M. Gaffney, Lydia E. M. Hines, Will E. Lynch, and Sally B. Peters for three-year terms (2020-2022), and Dee Ann Casteel for a one-year term (2020) on the Council Policy Committee (CPC). By electronic ballot, the Council elected Michelle V. Buchannan, Charles E. Cannon, Alan A. Hazari, Amber S. Hinkle, and Thomas H. Lane for three-year terms (2020-2022) on the Committee on Nominations and Elections (N&E). By electronic ballot, the Council elected Lisa M. Balbes, D. Richard Cobb, Emilio X. Esposito, Jason E. Ritchie, and Stephanie J. Watson for three-year terms (2020-2022) on the Committee on Committees (ConC).

Continuation of Committees: On the recommendation of the Committee on Committees, and with the concurrence of the Council Policy Committee, Council approved the continuation of the Committees on International Activities and Professional Training, contingent on approval by the Board of Directors.

Establishment of an International Chemical Sciences Chapter: On the recommendation of the Committee on International Activities, and with the concurrence of the Council Policy Committee, Council approved the creation of an ACS International Chemical Sciences Chapter in the Republic of Georgia, contingent on approval by the Board of Directors.

Redistricting of a Local Section: On the recommendation of Nominations & Elections, the Council voted that the Pittsburgh Local Section be transferred from District II to District III in order to bring District III's member population into compliance with bylaw requirements.

Highlights from Committee Reports - Nominations and Elections: The Committee on Nominations and Elections solicits Councilors' input of qualified individuals for President-Elect and/or Directors for future consideration. Suggestions can be sent to nomelect@acs.org. Ballots for the 2019 fall national election will be distributed starting on September 30th, with a voting deadline four weeks later on October 25th. ACS members eligible to vote and with an email address on file will receive an electronic ballot with the option to request a paper ballot.

Budget and Finance: The Society's 2019 financial performance through July 31st yielded a Net from Operations of \$30.1 million. This is \$10 million favorable to the Approved Budget, and \$1.7 million less than the same period in 2018. Total revenues are right on budget at \$338 million. Total expenses are \$308 million, which is \$10 million favorable to budget. The committee considered two 2020 program funding reauthorization requests, and on its recommendations, the Board subsequently approved funding for the ChemIDP and the International Student Chapters Programs in the 2020 Proposed Budget. The committee considered new program funding requests for 2020 as well. The Board subsequently approved funding for the Green and Sustainable Chemistry Education Resources pilot for inclusion in the 2020 Proposed Budget. The Society is expected to end the year in compliance with each of the five Board-established financial guidelines. Additional information can be found at www.acs.org, at the bottom of the page, click 'About ACS', then 'Financial'.

#### Actions of the Board of Directors - The Board's Executive Session

The Board's Committees: The Board received and discussed reports from its committees on Budget and Finance, Professional and Member Relations, Strategic Planning, Executive Compensation, and Pensions and Investments, as well as the ACS Governing Board for Publishing, the Task Force on the Future of Meetings, and the Society Programs Globalization Board liaison. In particular, on the recommendation of the Society Committee on Budget and Finance, the Board voted to set the advance member registration fee for national meetings held in 2020 at \$505 - this amount is equal to the 2019 fee, adjusted for inflation - and to approve or reauthorize several program funding requests.

Other Society Business: The Board received a preview of recommendations from the Committee on Strategic Planning for process improvements focused on streamlining the ACS strategic planning process, including an adjustment of the cycle time; inclusion of an analysis of professional association market dynamics; and concentration on only the highest-value elements for the Strategic Plan. The Board also held a discussion with members of the executive committee and staff leadership of the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) on the vision, mission, and structure of SACNAS. Various components of the recently signed Chemistry Enterprise Partnership agreement were discussed, emphasizing the shared overarching objective of promoting and achieving diversity in STEM. The Board agreed to the appointment of a joint ACS-SACNAS task force charged with developing additional short-term goals, evaluating continued partnership potential, and developing long-term goals.

Respectfully submitted, Kelley Caflin and Jeanne Berk, LVACS Councilors



#### LEHIGH VALLEY SECTION SUMMER 2019 ACTIVITIES!

LVACS members enjoyed our annual summer treats of a picnic outing in Nockamixon SP and a night at the ballpark cheering on our Lehigh Valley IronPigs as they squealed by the Toledo MudHens, 5-4.





# FAREWELL TO IYPT 2019 ... AND HELLO TO EARTH WEEK 2020



Chemists worldwide say goodbye to a wonderful year of getting our arms around the Periodic Table of the Elements for one big Medeleevian hug after another! The 150<sup>th</sup> Anniversary of the conventional layout of the elements closed officially on December 5<sup>th</sup> in Tokyo. Among many highlights of the year, scientists who created and discovered superheavy elements appeared on stage to celebrate the completion of the 7th row of the Periodic Table with Ms. Honoka Motai, a student from Tokyo Gakugei University Senior High School, playing her piano fantasy "Nihonium" to close the session. Many LVACS members will recall the Program-In-a-Box gatherings on February 26<sup>th</sup>. As we end 2019, what stood out for you during IYPT?



2020 heralds the 50<sup>th</sup> year since the first Earth day in 1970 [unlike IYPT, many of us can say: "it seemed like only yesterday..."]. The theme of Earth Day, April 22, 2020 is Climate Action and incorporates a number of initiatives including Earthrise and The Great Global Cleanup.









#### HOW LVACS CHEMISTS CELEBRATED EARTH WEEK 2019



Sherman Cox, Minerals Technologies, Inc. encourage kids to "take note" of Paper chemistry at the LVACS CCEW event.

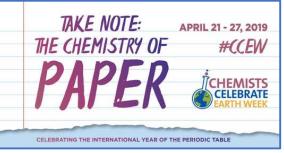
Even very young kids and moms learned that they, too 'can' make a piece of paper from just waste newspapers, a blender and a little patience draining, pressing and ironing out the water! Here Sherman Cox of Minerals Technologies Inc. provides the guidance.

Lehigh Valley ACS celebrated Earth Week 2019. "Take Note: The Chemistry of Paper" jointly with The Da Vinci Science Center in Allentown, Pa and paper industry supplier Minerals Technologies Inc. The one-day event offered the public, young and old, an opportunity to learn about the chemical aspects of papermaking from both a scientific and an industrial perspective. Visual exhibits and hand papermaking and paper testing equipment from the local R&D labs of Minerals Technologies Inc. enabled hands-on demonstrations. An excellent range of visuals and hands-on demonstrations provided by Minerals Technologies Inc. and the well-matched venue provided by Da Vinci Science Center gave a large number of visitors to the Center the opportunity to view the exhibits and participate in the papermaking and paper testing demonstrations. Most were fascinated by the history and simplicity of the basic papermaking process and the kids loved to 'scrunch up some old paper and make it into new paper!' Minerals Technologies Inc. provided the exhibits and demonstration equipment for











#### TOP UNDERGRADUATE SENIORS HONORED AT APRIL POSTER SESSION

Twelve undergraduate chemistry and chemical engineering seniors were recognized during the April 18, 2019 Undergraduate Research Poster Session for outstanding achievement in their studies. Each student receives a certificate and a copy of the 99<sup>th</sup> Edition of The CRC Handbook of Chemistry and Physics. The awardees were listed in the program as reproduced below.

Congratulations on your hard work from the Lehigh Valley section!

#### **Senior Awardees**

**Albright College** J William Henry Adams

Alvernia University Anastasia Ahern

Cedar Crest College Cache Davis

**DeSales University** Thomas A. Corey

East Stroudsburg University Jonathan Schillinger

> Kutztown University Alyssa Stonebraker

Lafayette College Chemistry: Aditya Nellore Chemical Engineering: Andrea Killian

Lehigh University Chemistry: Weng Si Chan Chemical Engineering: Lindsay Slavit

> Moravian College Jonathan Nadraws

Muhlenberg College Andrew Rice



#### ACS PROJECT SEED AND CHEMISTRY OLYMPIAD GET NEW COORDINATORS

#### ACS Project SEED gets a new start in the Lehigh Valley

LVACS is excited to welcome Jeremy Heyman of Northampton Community College as a new member of the section and our first ACS Project SEED coordinator! Since 1968, Project SEED has helped more than 11,000 economically disadvantaged high school students, many of whom were the first in their family to attend college. For 8 to 10 weeks during the summer, SEED students work in real laboratories, with real scientists serving as mentors <a href="https://www.acs.org/content/acs/en/education/students/highschool/seed.html">https://www.acs.org/content/acs/en/education/students/highschool/seed.html</a>. Jeremy comes to us with eight years of experience as a SEED coordinator in New York City (ELLIS Prep. Academy, NYC Dept. of Ed. in the Bronx, in conjunction with Columbia University) and is currently looking for mentors to host high school students over the summer of 2020 (jheyman@northampton.edu). If you can't be a mentor, consider a contribution <a href="https://www.acs.org/content/acs/en/about/makedonation/projectseed.html">https://www.acs.org/content/acs/en/about/makedonation/projectseed.html</a> to help SEED grow!





#### Chemistry Olympiad in the Lehigh Valley section begins its 33<sup>rd</sup> year in 2020!



WANT YOU

...for the US National Chemistry Olympiad!



LVACS is one of the long-time sponsors for the Chem Olympiad having started in 1987. This coming year the competition will be coordinated by Gail Marsella of Muhlenberg College (gailmarsella@muhlenberg.edu). High school teachers recommend students to take the local exam which will be held at Muhlenberg March 21, 2020. The deadline for signup is January 17<sup>th</sup> with no charge to participate. All students will be recognized and presented with a certificate and about 150 top scoring students receive recognition for outstanding performance at the national level. We hope this recognition will serve to stimulate interest and promote a positive attitude toward chemistry.

 $Visit: \ \underline{\text{https://www.acs.org/content/acs/en/education/students/highschool/olympiad.html}}$ 

#### 2020 Chemistry Olympiad Schedule

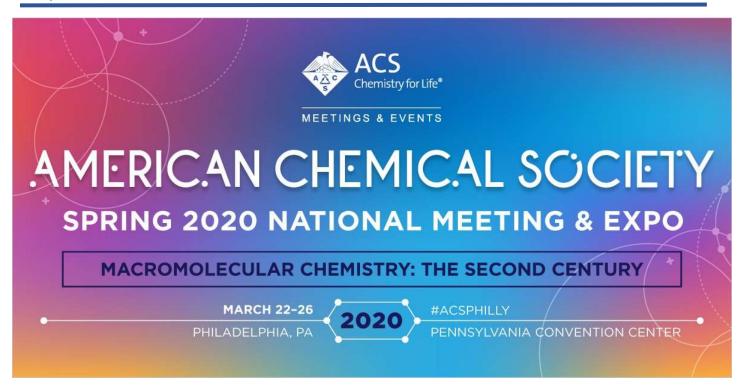
Local section exam, March 21, 2020 (paper test)

National exam, April 18, 2020 (paper test plus a lab practical for top performers on the local exam) Top 20 students in the country go to a study camp in June.

Four of those 20 go to the International Chemistry Olympiad in Istanbul, Turkey in July.

**U.S. National Chemistry Olympiad** 





EARLY REGISTRATION ENDS JANUARY 8TH FOR THE SPRING MEETING IN...



# PHILADELPHIA!!

Register at: <a href="https://www.acs.org/content/acs/en/meetings/national-meeting/registration/pricing.html?sc=191126">https://www.acs.org/content/acs/en/meetings/national-meeting/registration/pricing.html?sc=191126</a> mtg em PH20 od

EXCELLENT STUDENT AND TEACHER PROGRAMMING: Sunday, March 22<sup>nd</sup> and Monday, March 23<sup>rd</sup> <a href="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/student-programming.html</a>



#### STUDENT CHAPTERS!

Participate in *ChemDemo Exchange* on Sunday, March 22<sup>nd</sup> 2020! Demonstrations/hands-on activities must use only household chemicals and materials, plus meet safety criteria. *Only one station will be assigned per chapter*. To participate, please submit your activity by Friday, January 17, 2020. Submissions will be reviewed for safety, creativity, and educational merit. See the ACS website: <a href="https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/student-program/chemdemo-exchange.html">https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/student-program/chemdemo-exchange.html</a> for details and how to submit an activity.

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!

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#### IN MEMORIAM: JOHN THOMAS (TOM) BALAS, died SEPTEMBER 23, 2019 aged 71

We were informed in late September that John Thomas (Tom) Balas, a 50-year ACS member honored at our 125<sup>th</sup> Anniversary Celebration in March had died. Carol Stein contributed these reminiscences of a fellow LVACS member and mentor to honor Tom's memory.

"Today we honor the late Tom Balas. On behalf of Tom, LVACS members are donating money to the ACS SEED program. Tom had a passion for chemistry and wanted everyone to have an opportunity to follow their dreams. Tom lived in the Lehigh Valley and was active in the community. He was a 50+ year member of the ACS and followed our local section's activities.

I first met Tom because I was college roommates with his daughter. I have fond memories of joining his family for a dinner or a celebration. Eventually the conversation would turn into a chemistry discussion. Tom had a great passion for chemistry; he worked as an analytical chemist for most of his career and enjoyed engaging in what I was learning. I was always impressed by his ability to remember reactions and techniques. Imagine... I was the one that just read the text yesterday, college was how many years ago for him? Yet he was reminding me that I forgot a critical reagent in my equation.

After I started my career and even though his daughter had moved out of the house I would occasionally stop in for a visit. Once again Tom would ask questions that led our conversation to what type of chemistry I was working on and the reaction behind the test. He taught me that despite my frustration with the QC routine job, I could still know and learn the chemistry behind the USP test. I didn't have to just follow a recipe blindly. The years that I knew Tom, before he retired, he worked as an inorganic analytical chemist for Ashland. It impressed me that he never seemed to forget the organic chemistry. I would talk about a color test or wet chemistry analysis I was working on and he was able to tell me the reaction and why the test would work. Tom encouraged me to be the best chemist I could be, whether in the classroom, doing a boring job, or performing the research I dreamed of doing. His attitude on life, his faith and how he persevered are great examples for my generation and the ones to come.

I currently work with a former coworker of Tom's. She only had praises toward Tom, saying he was a joy to work with, caring, and always willing to help. You knew you could count on him, he had a real passion for chemistry.

After Tom retired, he took up different hobbies like painting, but still held onto his passion for chemistry. On my last visit (Jan 2019) we talked about many of life's adventures, his grandson, painting with Parkinson's, my upcoming trip and house remodeling and of course my current chemistry endeavors. I think Tom enjoyed hearing about the advancements in the lab even if he was not there to benefit from them. The science community has lost a great chemist."

LVACS members are invited to contribute to ACS SEED in Tom's honor at: https://www.acs.org/content/acs/en/about/makedonation/projectseed.html



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