

THE OCTAGON

April Section Meeting: Call for Posters! Undergraduate Poster Session and Awards Night

[DeSales University](#)

2755 Station Avenue, Center Valley, PA 18034

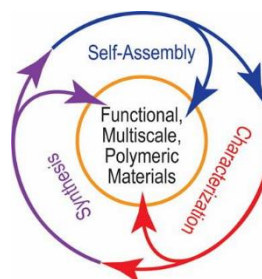
Wednesday, April 12th

Nanostructured Polymer Muscles

Speaker: Robert Hickey, PSU

[Abstract and Bio](#)

Dr. Robert J. Hickey from Pennsylvania State University, Department of Materials Science and Engineering, will be presenting the evening's featured talk: "Nanostructured Polymer Muscles". The Hickey group investigates non-equilibrium chemical and self-assembly methods to create nanostructured polymeric materials. Robert has been awarded the Air Force Office of Scientific Research Young Investigator Prize and the NSF CAREER Award.



All events will be held in the DeSales University Center ([map](#) #15)

Poster Presentation and Social Hour 4:30-6:00 pm

Wood Heritage Rooms

Dinner 6:00-7:00 pm

Meeting/Awards/Speaker 7:00-9:00 pm

Trexler/Hurd Rooms

Cost: \$30 for members; \$15 for students [MENU](#)

[RSVP](#) for Poster Abstract Submission and Dinner by Wednesday, April 5th

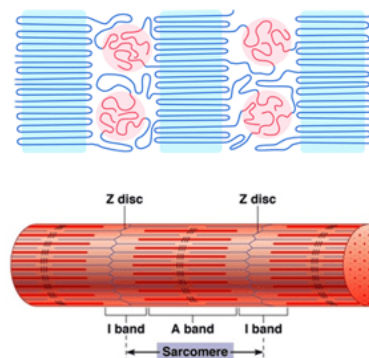
[Directions](#)

[Campus Map](#)

Parking Free in the DeSales University Center lot

PLEASE POST [FLYER](#) !!

CONTACT: Sara Hayik, sara.hayik@desales.edu





ACS
Chemistry for Life®

LVACS Events Calendar

April 2023

April Section Meeting and Undergraduate Poster Session

DeSales University

2755 Station Avenue,
Center Valley, PA 18034

Wednesday, April 12th

Speaker: Robert Hickey, Penn State U
DeSales University Center ([map](#) #15)

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CONTACT: Sara Hayik, sara.hayik@desales.edu



April 16-22: Chemists Celebrate Earth Week

The Curious Chemistry of Amazing Algae

Outreach Events: <https://www.lvacs.org/community-outreach>

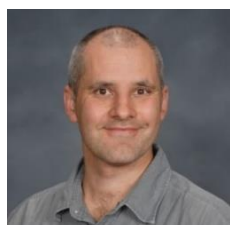
How will you Celebrate 'Planet A' in 2023?

Read more about ACS 2023 CCEW [here](#)



Special Earth Day event: On Earth Day, **Saturday, April 22nd**, LVACS will be co-sponsoring a special half-day symposium on climate science at Cedar Crest College with plenary speakers [Sherine Obare](#), (UNC-Greensburg and 2022-2023 chair of ACS ENVR Division), [Jonas Baltrusaitis](#) (Lehigh University), and [Laura McBride](#) (Albright College).

CONTACT: Lindsey Welch, lawelch@cedarcrest.edu



Always watch www.lvacs.org for current meeting and event updates.

Octagon CONTACT: Nigel Sanders, LVACS secretary and newsletter editor, nigel53.sanders@gmail.com

Also In This Issue...

3. April Undergraduate Research Poster Session Final Call.

4. March Meeting Report.

5. LVACS at Science Fairs.

6. Apply for George Ruger Travel Awards for upcoming Meetings.

7. Video: Eve Gibbs of PSU Berks, 2022 NIAMS InVTRO intern.

8. CCEW Illustrated Poetry Contest

9. CCEW: Algae in the News

10-11. Career Pages

12. High School Awards competitions: Last Call!

13. MARM Registration Open; 2023 is the Year of Copernicus!

14. 2023 Executive Committee.

15-27. Appendices: LVACS High School Awards Application Forms.

Undergraduate Research Poster Session

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

Wednesday, April 12, 2023

DeSales University Center Wood and Heritage Rooms 4:30-6:00 PM

Preceding the April meeting of the Lehigh Valley Section of the ACS

UPDATES WILL BE PUBLISHED ON OUR WEBSITE: <https://www.lvacs.org/meetings-and-events>

Who may participate?

Undergraduates attending a college or university within the Lehigh Valley section of the ACS. Research may have been done at the student's home institution with a chemistry or chemical engineering faculty member, during a summer research experience elsewhere, or as a summary of the work done by an ACS Student affiliate club.

To participate

Students wishing to present their work must submit an abstract *themselves* at <https://forms.gle/yEjdc58wG3ygACWk8> by **Wednesday, April 5, 2023**. Please email sara.hayik@desales.edu with any questions. Early submission is encouraged.

Abstract requirements (filled out in Google Forms at <https://forms.gle/yEjdc58wG3ygACWk8>)

Title (in sentence case)

Authors names and institutions

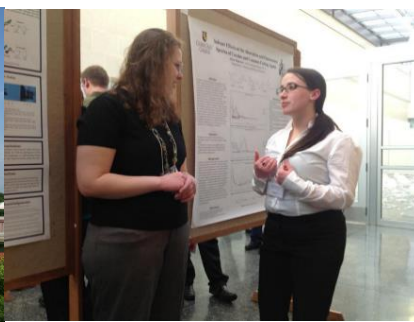
Abstract text (maximum of 150 words)

Dr. Robert J. Hickey from Pennsylvania State University, Department of Materials Science and Engineering will be presenting the evening's featured talk:

"Nanostructured Polymer Muscles". The Hickey group investigates non-equilibrium chemical and self-assembly methods to create nanostructured polymeric materials. Robert has been awarded the Air Force Office of Scientific Research Young Investigator Prize and the NSF CAREER Award.

Other requirements and information

- ALL students must register by April 5, 2023 via <https://forms.gle/yEjdc58wG3ygACWk8> but only one per poster need submit an abstract.
- The poster session is held before the dinner meeting (\$30 for full members, \$15 for students, retired, and unemployed guests) and our annual student awards night.
- Poster presenters will be provided with pins, poster boards, and easels for displaying the posters.
- DeSales University encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation, have any questions regarding physical accessibility or would like more information, contact Sara Hayik, sara.hayik@desales.edu





March Section Meeting Report



Our March 23rd Section [Meeting](#) at Muhlenberg College combined a tasty social hour and dinner with an excellent talk by **Dr. Todd McEvoy**, Senior Director of Laboratory Services of Azzur Group, entitled “Developing the Formula for a Rewarding Career in Science.” Todd started out by emphasizing the difference between the usual ‘1st grade’ self-analysis assignment of “What do you want to be when you grow up?” and the more nuanced “*Who* do you want to be when you grow up?” Todd continued to explore that question throughout his presentation. Topics included deciding career paths (don’t be afraid to change!), self-assessment (why science? strengths, interests, values), traditional vs non-traditional career paths (there’s more out there than you think!), utilizing resources to find the right job (advice + exploration) and, finally, putting it all together. Todd graciously provided us his wisdom gained through his own career experiences and fielded many great questions from our student audience. Review his [slides](#). While you’re at it, learn more about ACS member career growth support and how to chart the next steps in your job search: [here](#) !

Developing the Formula for a Rewarding Career in Science
LEHIGH VALLEY ACS MEETING
March 23, 2023
FROM DISCOVERY TO DELIVERY

Who do you want to be when you grow up?

EVALUATE THE FORMULA

$$\text{Successful Career} = (S + I + P + V) \times E$$

S = Skills
I = Interests
P = Personality
V = Values
E = Explore, Effort, Education

WHAT ARE YOUR STRENGTHS?

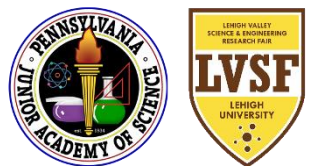
Robyn Duda '04

"Figure out what you love to do and find someone to pay you to do it."

TRADITIONAL VS NON-TRADITIONAL

Biology Traditional	Biology Non-Traditional
• Botany	• Scientific writer
• Environmental Sciences	
• Molecular Biology	
• Medical Biology (genetics, immunology, etc.)	
• Marine Biology	
• Zoology	
• Microbiology	
• Medical school track	

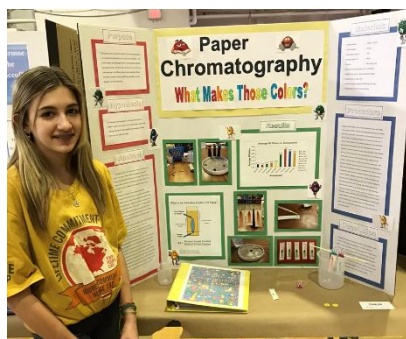
Members Help ElHi Students Elevate Science at Local Science Fairs



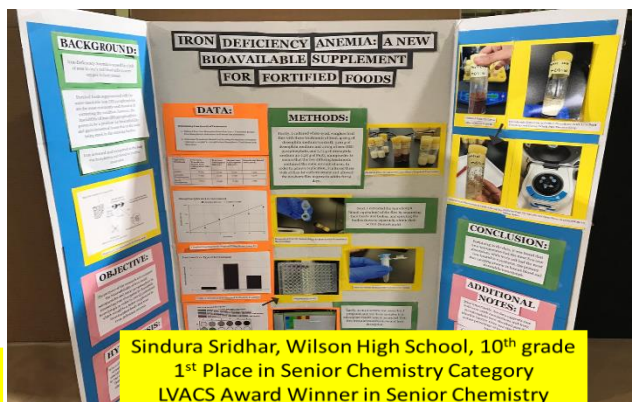
Steve Boyer, LVACS 2023 Chair, and Nigel Sanders, Secretary, share a moment at the Region 3 Pa Junior Academy of Sciences meeting at Northampton CC Feb 25th.



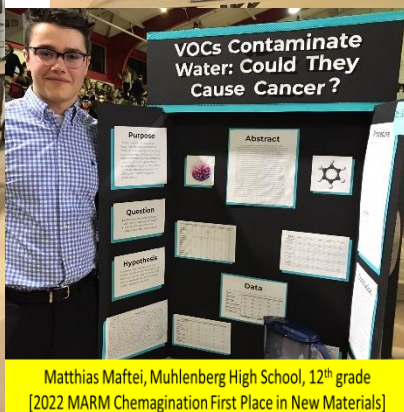
LVACS participated in our local Science Fairs over the past 3 weeks with exhibit tables at the annual PA Junior Academy of Sciences (PAJAS; Region 3 meeting on Saturday, February 25th at [Northampton CC](#)) and Reading-Berks Science and Engineering Fair (RBSEF; March 14-16 at [Albright College](#)). Eight of the judges at PAJAS and four at RBSEF were Section members (we could use more next year!). At the 2023 RBSEF (71st annual event: second oldest in the nation!), LVACS sponsored [two special awards](#) of \$250: to the best chemistry project/poster by a middle school and by a high school student. This year's winners were Muhlenberg MS 7th grader [Morgen Dieter](#) for her project "Paper Chromatography: What Makes Those Colors?" and Wilson HS 10th grader [Sindura Sridhar](#) for "Iron Deficiency Anemia: A New Supplement for Fortified Foods." There were 450 students from 19 schools in all - a fantastic turn-out! See more event [pictures](#) and the awards ceremony [brochure](#).



Morgen Dieter, Muhlenberg Middle School, 7th grade
LVACS Award Winner Junior Physical Science Category



Sindura Sridhar, Wilson High School, 10th grade
1st Place in Senior Chemistry Category
LVACS Award Winner in Senior Chemistry



Matthias Maftai, Muhlenberg High School, 12th grade
[2022 MARM Chemagination First Place in New Materials]



George Ruger LVACS Student Travel Awards: Apply Now for MARM, NERM and Fall Meetings

To honor the memory of past LVACS chair and devoted ACS volunteer George Ruger, the Lehigh Valley Section is pleased to announce a new \$150 award for students at Lehigh Valley Colleges and Universities to offset the costs of travel to present at an ACS National or Regional meeting. The application form is printed below and may also be downloaded [here](#).

Please submit this completed form to Steven Boyer (sboyer11@esu.edu) along with:

- A copy of the accepted meeting abstract
- A short explanatory letter (1 page max) describing what you hope to learn from the meeting

Eligibility:

- Any college or university student in the Lehigh Valley Local Section that is presenting at an ACS National or Regional meeting
- Preference will be given to first-time attendees
- Award is based on merit as judged by the local section Executive Committee

2023 Deadlines:

- ~~Spring National Meeting 3/7/2023~~
- MARM, NERM, Fall National Meeting 4/31/2023

Application:

Student Name _____ Institution _____
Faculty Advisor _____
Presentation Title _____

Conference Attending _____

This conference is (circle one) a regional conference a national conference

Format of presentation (circle all that apply) poster oral

Is this your first conference presentation: Yes No

Have you won a previous LVACS Travel Award? Yes No

Any other travel support?

Student Name _____

Student Signature _____ Date _____

Faculty Advisor Name _____

Faculty Advisor Signature _____ Date _____



2022 NIAMS Interns Thrived in Hybrid Training Program

March 2, 2023



Eve Gibbs
Penn State Berks
Biochemistry (3rd Year)
[RNA Molecular Biology Laboratory](#)

2022 NIAMS InVTRO [Interns](#)

This past summer, the NIAMS Intramural Research Program's (IRP's) [Career Development and Outreach Branch](#) (CDOB), welcomed the first hybrid class of interns to [the Intramural Virtual Training Research Opportunities](#) (InVTRO) program. Among the diverse group of students from across the country, eight received in-person training, and 11 attendees were virtual for the eight-week program. Last year, the InVTRO program was inaugurated as an entirely virtual training experience. The CDOB plans to continue developing and expanding the program in the future.

InVTRO gave the students a glimpse of the structure and operations of NIAMS and the IRP, the work of NIAMS scientists, and its modern labs and facilities.

The students took advantage of various training tracks and activities, such as career development sessions with NIAMS staff, special presentations from current NIH fellows and Principal Investigators, and participation in Grand Rounds and journal clubs. The internship also offered sessions describing the NIAMS IRP research portfolio, included the students in collaborative lab meetings, and provided other learning and networking opportunities.

Robert Walker, Ph.D., Chief of the CDOB, leads the InVTRO program, and Janelle Hauserman, Ph.D., and Martyn Green also of CDOB, facilitated the training activities.

Watch short videos in which some participants describe their experience in their own words, and read testimonials from other participants [here](#). *We highlight a local intern from this august group: Eve Gibbs, daughter of LVACS Membership Chair and longtime ACS Career Consultant, Greglynn Gibbs.*



2023 CCEW Illustrated Poem Contest The Curious Chemistry of Amazing Algae

The Lehigh Valley Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in kindergarten through 12th grade.

Contest Deadline: Sunday, April 30, 2023 by 11:59 PM ET

Prizes: ACS Gear from the ACS Shop

Contact: Dr. Lindsey A. Welch, lawelch@cedarcrest.edu

Winners of the Lehigh Valley Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the CCEW theme, **"The Curious Chemistry of Amazing Algae."**
Your poem must be **no more** than 40 words and in the following styles to be considered:

HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME - BLANK VERSE

Possible topics related to the theme include:

- Seaweed
- Micro- or macro- algae
- Photosynthesis
- Bioluminescent algae
- Algae as food & habitat for animals
- Consumer products from algae
- Oxygen from algae
- Biofuels from algae

Entries will be judged based upon:

- Artistic Merit - use of color, quality of drawing, design, and layout
- Poem Message - fun, motivational, inspiring about yearly theme
- Originality Creativity - unique, clever and/or creative design
- Neatness - free of spelling and grammatical errors

Contest rules:

- All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.
- Entries are judged based upon relevance to and incorporation of the CCEW theme, word choice and imagery, colorful artwork, adherence to poem style, originality and creativity, and overall presentation.
- All entries must be original works without aid from others. Poems may be submitted by hand on an unlined sheet of paper not larger than 11" by 14" or scanned and sent via email. Illustrations may be created using crayons, watercolors, other types of paint, colored pencils, or markers. The illustration may also be electronically created by using a digital painting and drawing app on a computer, tablet, or mobile device.
- The text of the poem should be easy-to-read and may be typed before the hand-drawn or digital illustration is added, or the poem may be written on lined paper, which is cut out and pasted onto the unlined paper with the illustration.
- No clipart or unoriginal images can be used.
- Only one entry per student will be accepted; all entries must include an entry form.
- If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- Acceptance of prizes constitutes consent to use winners' first name and last initial, along with the name of the ACS Local Section, on the ACS web pages and in the magazine, Chemical & Engineering News



Turning problem sea algae into a replacement for plastic

By Jo Harper, BBC News, January 23, 2023



Mari Granström, a biochemist, sources algae from the Baltic Sea and larger seaweed from the Caribbean



Algae blooms can plague the Baltic Sea, particularly in the summer

Excessive outbreaks of seaweed are clogging up waters from the Caribbean to the Baltic. Now the algae is being harvested alongside farmed crops to create ingredients for cosmetics and food products. Mari Granström says it was her passion for scuba diving that opened her eyes to the continuing problem of toxic algae blooms in the Baltic Sea. The outbreaks occur when tiny cyanobacteria, also called blue-green algae, suddenly multiply rapidly, stretching out on top of the water for potentially kilometres. Also called eutrophication, it is a form of marine suffocation, and it is a significant environmental concern in the Baltic Sea. It can occur in 97% of the total area of the sea, according to official figures. The blooms impact on other marine life, by causing oxygen deficiency, reducing water quality, and blocking out light. The problem is caused by too many nutrients entering the water, typically nitrogen and phosphorus from artificial fertilisers. These are carried into the sea by the rivers of the surrounding countries - Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. While the use of such fertilisers has reduced in recent years, the Baltic Marine Environment Protection Commission, the intergovernmental organisation that aims to improve water quality in the sea, says "the effect of these measures has not yet been detected". Some six years ago Ms Granström, a Finnish biochemist, determined to tackle the problem herself. She'd harvest the algae and use it to make ingredients for a host of products. In addition to cosmetics and human food, the algae extracts can be used in detergents, animal feed, packaging, and even as a replacement for plastic. This comes as there is a growing trend for seaweed to be harvested for such purposes, as a replacement to oil-based ingredients.



Origin by Ocean produces numerous extracts from the algae



The algae is harvested by sucking it out of the sea

"I saw with my own eyes - or perhaps couldn't see - how it was affecting the marine ecosystem, and decided to do something," she says. "There was too much finger pointing and not enough action." Ms Granström says she worked on the project as "a hobby for a long time", before in 2019 setting up a company called Origin by Ocean (ObO). She is the chief executive. The business, which has attracted both commercial investment and European Union funds, is now continuing with a pilot production scheme ahead of aiming to be fully operational by 2025-26. ObO collects the algae off the coast of Finland, where it is sucked on to boats and then separated from the water. The firm is also importing invasive sargassum seaweed from the Dominican Republic in the Caribbean. Vast blooms of that algae have plagued that region for a number of years. "There are 25 million tonnes of sargassum blooming in the Caribbean every year," says Ms Granström. "It stops people fishing and harms tourism. We are now buying several tonnes of sargassum from the Dominican Republic, and this volume will increase." The company further sources unwanted seaweed from Portuguese and Spanish waters. ObO's pilot processing is done at a facility in northern Finland. It uses a patented biorefinery technology called "Nauvu" to separate the algae into numerous useable materials. These are then sold to food, cosmetics, textiles, packing and agricultural companies.

LEHIGH VALLEY ACS CAREER PAGE

Check out the Career page on our website lvacs.org/careers for a wealth of information on the services provided by LVACS to chemists at all stages of their careers. Online courses, 1-on-1 consulting, professional development grants and the [ACS Career Navigator™](#) package are some of the benefits offered to ACS members to assist in planning and executing your career. Greglynn Gibbs, our local section ACS Career Consultant, would be happy to assist any member seeking more information at greglgibbs@gmail.com



Join the ACS for this *free* Virtual Office Hour session on **Thursday, April 6, 2023** at 12pm EST. Open to ACS members and non-members, this virtual session will begin with a presentation reviewing the critical steps to prepare, stand out, and do your best in a virtual interview led by ACS certified Career Consultant Heinz Plaumann, Ph.D., followed by the opportunity to network in small groups lead by ACS Career Consultants. [Register](#) now!

CHEMISTRY JOB LISTINGS: These listings are posted to aid LVACS members in their career development and do not reflect a recommendation of these institutions by LVACS. For an updated listing, check our website, www.lvacs.org

Graduate Chemist, Philadelphia Water Department

A job opportunity appropriate for recent and future Chemistry and Biochemistry graduates. Any student within 9 months of receiving a Bachelor's, Master's, or PhD is eligible to apply, as is anyone already holding one or more of those degrees. The posting itself can be found at <https://phila.peopleadmin.com/postings/99302>.

Director, Process R&D, Evonik Allentown, PA On-site

Strategic planning, coordination, and scientific management of global processes for amines; Development and leadership of projects to drive step change productivity through application of novel process technology including creation of white papers, technology road maps and engineering economics in areas new to the business. Management of international, strategic innovation and process optimization projects across a complex matrix involving R&D, application technology, process engineering and production. Coordination of important internal and external partners regarding technical aspects of projects. Global functional and disciplinary responsibility for "Hydrogenation and Amine Derivatives" group including resource allocation. Monitor new or alternative technology platforms. Development and implementation of IP strategies Responsible; key skills areas in Process R&D including development and recruitment of talent. Ensures that Knowledge Retention is maintained. [Apply](#)

Senior Scientist (DLC/Coatings/Thin Film), BEST Engineered Surface Technologies, LLC, Allentown, PA

We are in search of a **Senior Scientist** at our **Diamonex** facility in **Allentown, PA** to add to our team. This new member of our team and family will be part of a team that develops new products, processes, and configurations specific to our complex technology. [Apply](#)

Formulation Chemist Personal Care, Brenntag, Allentown, PA

The Formulation Chemist is responsible for creating innovative starting point formulations and managing customer projects, product development, and application testing in order to support the sales and marketing organization as well bring value to our customers and suppliers. [Apply](#)

LEHIGH VALLEY ACS CAREER PAGE [continued]

Chemist - Adhesives, Wacker Chemical Corporation USA, Allentown, PA On-site

This position will be focused on technical service, application development and product development for customers in the adhesives market for North America. This position will require significant time working in the laboratory. This role will be crucial in initiating, developing, and maintaining relationships between customers and Wacker from a technical perspective. This position will coordinate and work with R&D, production sites, business teams, EH&S, and the Sales team to grow profitable and sustainable business. In addition, this role has primary responsibility to maintain a safe work environment through establishing, implementing, and maintaining safe work practices in the team and in the technical community in general. [Apply](#)

Chemist, Evonik, Allentown, PA On-site

Manages and completes new product development programs to meet the emerging needs of the epoxy adhesive market, that results in increased, defensible opportunities for the ECA business line. Works with North America-Application Technology and adhesive market leads to manage assigned product development projects from concept to commercialization. Support customers and commercial team on the adhesive curing agents and additives product lines and be the key point of contact. Understand the ECA base product offerings and have a deep knowledge of structure-properties-relationship to apply for the new product design. Develops a strong working relationship with technology teams in the Americas and further develop these relationships with technical counterparts in Europe & Asia. Demonstrates technical leadership in the area of safety and product stewardship. [Apply](#)

Post Doc Industrial Fellow - High Performance Polymers, Evonik, Allentown, PA On-site

The position is limited to 15 months.

Contribute to R&D projects, communicate with partners internally (e.g., Technical centers in Marl and China) and externally (e.g., concerning polymer processing). This includes the planning, preparation, coordination, and execution of R&D work in labs and plants. The position holder will be in contact with customers and internal stakeholders to learn new competences and get involve with main tasks and challenges in polymer development work. [Apply](#)

Sr. Research Chemist, Church & Dwight Co., Inc., Princeton, NJ On-site

The Senior Research Chemist will work with other researchers and multidisciplinary project teams to solve problems using various analytical chemistry techniques. Work with Sr. Manager Applied Sciences and other Analytical, and Microbiology Leads to develop a 5- and 10-year plan to build C&D's Analytical/Microbiology capability delivering a roadmap to support innovation. The Senior Research Chemist will be able to interpret and communicate results to various product and process personnel. The Senior Research Chemist will also mentor other chemists and technicians in the department. [Apply](#)

Senior Surfactants Scientist, Nouryon, Bridgewater, NJ On-site

The Senior Surfactants Scientist will join the Nouryon team and be responsible for the research, development, and evaluation of surfactant ingredients for the home and personal care segments. This may include developments for various sub-segments, such as hard surface cleaners, degreasers, laundry and dish washing products, personal cleansing systems, conditioners, sunscreens, and skin care products. [Apply](#)

ACS ANNOUNCES A NEW CAREER PLANNING TOOL FOR MEMBERS

[ChemIDP](#) is an Individual Development Plan designed specifically for students and postdoctoral scholars in the chemical sciences. Through immersive, self-paced activities, users explore potential careers, determine specific skills needed for success, and develop plans to achieve professional goals. ChemIDP tracks user progress and input, providing tips and strategies to complete goals and guide career exploration. The latest feature, My Vitae, helps document and track user's career and professional development, making it easier to craft job-specific documents such as CVs or résumés. Get started with [ChemIDP](#) today!





LVACS High School Chemistry Awards: Last Call

John Freeman, LVACS Awards Committee Chair, has announced the 2023 Chemagination Competition, Foundation in Chemistry Award and the Lehigh Valley Section Award for Excellence in High School Teaching. More on these awards, including application forms and past winners can be found by visiting our website, <https://www.lvacs.org/education-and-student-awards>.

Chemagination Competition

The Lehigh Valley American Chemical Society (LVACS) will be holding a Chemagination Competition. Chemagination is a great learning experience for students. In addition to increasing their knowledge of science and chemistry, they can improve their creative, teamwork and public speaking skills. Such skills will serve them well in their future careers. For this event, high school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: "Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people's lives today." In addition to the article, students are asked to design a cover for the magazine. The article must be written as if the student is living in the year 2048, looking back at innovations that have occurred since 2023. The innovation must fall into one of the following categories: Alternative Energy, Environment, Medicine/Health, or New Materials. The winners of the LVACS local section competition will advance to the regional meeting, MARM 2023. Articles due by **April 14, 2023**. *Application materials: see the appendices to this issue.*

Foundation in Chemistry Scholarship Award

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2023 Foundation in Chemistry Award. The award, designed to promote the chemical sciences at the college level, will be given to a high school senior who will be majoring in chemistry, biochemistry, or chemical engineering and attending a college or university in the Lehigh Valley Section. This scholarship award consists of \$1000 and a certificate, which will be presented to the winner at a meeting of the Lehigh Valley Section of the American Chemical Society. The guidelines for the award and the application materials are attached. Please share this information with parents, students and guidance counselors and post the flyer. The four-part application should be completed and submitted by **April 14, 2023**. *Application materials: see the appendices to this issue.*

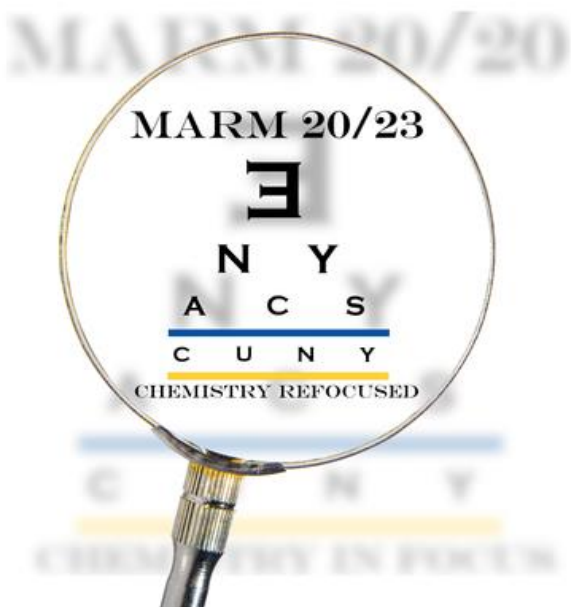
The Lehigh Valley Section Award for Excellence in High School Teaching

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2023 award for excellence in teaching. The award is designed to promote excellence in chemistry instruction at the high school level. Within the membership boundaries of the LVACS (Lehigh, Northampton, Berks, Monroe, Schuylkill, and Carbon Counties in PA, and Warren County in NJ). We hope that you will identify an outstanding teacher at your school and support them for the award. The Application materials follow Please share them with a teacher or administrator that has shown excellence in the instruction of the chemical sciences. The application should be completed and submitted by **April 1, 2023**. *Application materials: see the appendices to this issue.*



MARM 2023: Register today for our Regional ACS Meeting!

CHEMISTRY REFOCUSED

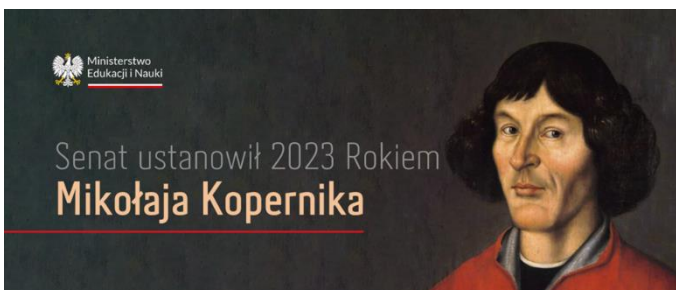


The [New York ACS](#) along with its partners at the [The Graduate Center of the City University of New York](#) and [St. John's University](#) are proud to present the 2023 Middle Atlantic Regional Meeting on June 9-10, 2023. This mini-MARM has the theme of 'Chemistry Refocused' and will include technical sessions, poster sessions, an exposition, employment programming including a resume review workshop, a graduate study fair, a social media social, a Women's Chemists Committee workshop on Promotion to Full Professor, a 50/60/70-year member luncheon, and an awards banquet.

Exhibitors and Sponsors are encouraged to [apply now](#) as space is limited. [Registration](#) is now open. Register by April 30th to take advantage of early registration fees!

2023 is the Year of Nicolaus Copernicus!

The Senate of the Republic of Poland has declared 2023 the [Year of Nicolaus Copernicus](#) to honor the revolutionary astronomer's 550th birthday. Polish universities with ties to Copernicus's work will host events throughout the year as part of the World Copernican Congress. And, in celebration of the occasion, the Polish postal service has issued a new stamp featuring the astronomer's portrait. Additionally, the element Copernicium, 112 on the Periodic Table, first created in 1996 by the GSI Helmholtz Centre for Heavy Ion Research in Germany, is named in his honor, which is interesting since Copernicus was an astronomer and had little to do with chemistry or physics. Nicolaus Copernicus was born on February 19, 1473 in Toruń, in a merchant family. He was a Polish lawyer, official, diplomat, doctor, lower Catholic clergyman, doctor of canon law, also dealing with astronomy and astrology, mathematics, economics, military strategy, cartography and philology. Copernicus is best known for putting Earth in its place. Though 16th-century convictions stated that all heavenly bodies orbit our home planet, Copernicus toppled Earth's celestial supremacy with the heliocentric model of our solar system. Yet this rebellious revelation didn't reach prominence until the posthumous publication of his treatise Six Books Concerning the Revolutions of the Heavenly Orbs. Legend has it that Copernicus was presented a copy of the manuscript in print while on his death bed. "He awoke long enough to realize that he was holding his great book and then expired, publishing as he perished," historian Robert S. Westman writes in the Encyclopaedia Britannica. It's an anecdote that may seem dramatic even by today's standards. But for this year, at least, it's all about Copernicus.



LEHIGH VALLEY SECTION OF THE AMERICAN CHEMICAL SOCIETY
2023 EXECUTIVE COMMITTEEOFFICERS

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sboyer11@esu.edu

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pelias@muhlenberg.edu

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lawelch@cedarcrest.edu

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nigel53.sanders@gmail.com

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jrberk@cedarcrest.edu

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caflinacs@yahoo.comALTERNATE COUNCILORS

Mike Bertucci (term ends 12/31/23)

bertuccm@lafayette.edu

Ned Corcoran (term ends 12/31/24)

ewc777@gmail.com

At-large members:

John Freeman

Abigail Stocker



The Octagon Newsletter is published by the Lehigh Valley Section of the American Chemical Society to provide information to section members and the public about activities and programs which support the section mission "To elevate the chemical sciences in the Lehigh Valley section for the benefit of our members and our community." Send all queries to the editor at: nigel53.sanders@gmail.com

APPENDICES: INFORMATION AND APPLICATIONS FOR LVACS HIGH SCHOOL AWARDS

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Pages 21-26 The Lehigh Valley Section Award for Excellence in High School Teaching

2023 CHEMAGINATION COMPETITION

Dear High School Teachers,

The Lehigh Valley Section of the American Chemical Society (LVACS) will be holding a Chemagination Competition. Chemagination is a great learning experience for students. In addition to increasing their knowledge of science and chemistry, they can improve their creative, teamwork and public speaking skills. Such skills will serve them well in their future careers regardless of field.

CONTEST OVERVIEW

For this event, high school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: *"Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people's lives today."* To view a sample ChemMatters magazine visit [acs.org: http://www.acs.org/content/acs/en/education/resources/highschool/chemmatters.html](http://www.acs.org/content/acs/en/education/resources/highschool/chemmatters.html).

In addition to the article, students are asked to design a cover for the magazine. The article must be written as if the student is living in the year 2048, looking back at innovations that have occurred since 2023. The innovation must fall into one of the following categories:

- * Alternative Energy
- * Medicine/Health
- * Environment
- * New Materials

A few examples of areas where development is expected are nanotechnology, energy efficiency, pollution prevention, green chemistry, sustainability, intelligent devices for sensing, proteomics, climate models, biopharmaceutical therapies, medical devices and/or implants and new energy sources.

Questions to guide your students

1. How did this research begin? What prompted or catalyzed the idea?
2. How did this research evolve from the initial research idea to the final innovation 25 years later? What were some of the key breakthroughs?
3. How did the research team work together and collaborate over the years?

The local section competition will be completely electronic. Teams should submit their articles and cover design to by **April 14, 2023**. The articles will be judged based on the MARM 2023 rules. Please refer to the attached document titled 2023 MARM CHEMAGINATION DESCRIPTION AND RULES for the official rules.

The winners of the LVACS local section competition will advance to the regional meeting, MARM 2023, sponsored by the NY ACS Section of the ACS. This will be held on Saturday, June 10th at St. John's University. First place category winners from the LVACS Section's Chemagination contests are eligible to participate in MARM 2023. If a first-place winning team chooses not to participate, a second place team may serve as an alternate. At that event masks covering the nose and mouth may be required. Students and faculty will be required to comply with any existing NY COVID-19 regulations for large gatherings.

DEADLINES: 2023 Chemagination

March 15: Teams should submit their intent to participate (this allows for appropriate judge recruitment but is not a firm deadline.)

April 14: Teams submit their articles online for the LVACS competition to lvacschemagin@gmail.com.
(This is a firm deadline)

May 9: Teams notified of award status (This is a firm deadline)

Late May TBD: LVACS winning teams submit their articles for MARM 2023 pre-judging

June 10: The 2023 MARM Chemagination Competition takes place at St Johns University, 8000 Utopia Parkway, Queens, NY 11439

Fall TBD: Teams honored at a Lehigh Valley ACS meeting

Regards,
John Freeman Chemagination2023 coordinator
lvacschemagin@gmail.com

2023 Foundation in Chemistry Award

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2023 Foundation in Chemistry Award. The award, designed to promote the chemical sciences at the college level, will be given to a high school senior who will be majoring in chemistry, biochemistry, or chemical engineering and attending a college or university in the Lehigh Valley Section. This scholarship award consists of \$1000 and a certificate, which will be presented to the winner at a meeting of the Lehigh Valley Section of the American Chemical Society. The guidelines for the award and the application materials are attached.

As an ACS member please share this information with parents, students and guidance counselors and post the flyer. The four-part application should be completed and submitted by **April 14, 2023**. We appreciate your help and thank you for publicizing the 2023 Foundation in Chemistry Award. We look forward to many worthy applications.

Instructions: The Foundation in Chemistry Award is sponsored by the Lehigh Valley Section of the American Chemical Society (LVACS) to promote the chemical sciences at the college level. This award, consisting of \$1000 and a plaque, will be awarded annually to a high school senior within the membership boundaries of the LVACS (Lehigh, Northampton, Berks, Monroe, Schuylkill, and Carbon Counties in PA, and Warren County in NJ) to attend a college in the Lehigh Valley area (eligible colleges are listed below) and intending to major in chemistry, biochemistry, or chemical engineering. The \$1000 check will be given to the student for defraying college expenses.

The applicant for this award should have completed one year of college preparatory chemistry, four years of mathematics, and one semester of college preparatory physics by high school graduation. The application, which is attached to these instructions, will be evaluated on merit by the LVACS HS Scholarship Committee. The completed four-part application (nomination letter from your chemistry teacher, the application form, transcript, and your essay) must be submitted by **April 14, 2023** and emailed to: lvacsfoundations@gmail.com. Please direct any questions about this award to: John Freeman at lvacsfoundations@gmail.com.

Sincerely
John Freeman
Chair of the LVACS HS Scholarship Committee
220 W Pierce
Easton, PA 18042

Eligible Colleges for Awardees:

*Albright College
Cedar Crest College
East Stroudsburg University
Lafayette College
Lehigh University
Muhlenberg College
Penn State-Berks
Penn State-Schuylkill Valley
Warren County CC*

*Alvernia College
DeSales University
Kutztown University
Lehigh Carbon CC
Moravian College
Northampton County CC
Penn State-Lehigh Valley
Reading Area CC*

2023 Foundation in Chemistry Award Nomination Form

(To be filled out by the student)

Student's Name: _____

Chemistry Teacher's Name: _____

e-mail address: _____

School Address: _____

I hereby _____ waive my right of access to this recommendation
_____ do not waive my right of access to this recommendation

(To be filled out by the teacher)

Please submit a letter of recommendation (as an attached letter) addressing such issues as the above student's knowledge of chemistry and the sciences, initiative, leadership potential, and potential as a student in the chemical sciences at college. Any additional information about the student's financial need would be appreciated; we will consider financial need in the event we judge more than one student to be equivalent on the basis of merit.

Deadline: April 14, 2023

Foundation in Chemistry Award Application Form

(To be filled out by the student)

Full Name: _____

Home Address: _____

Home Phone #: _____

e-mail address: _____

High School: _____

Names and addresses of your legal guardians:

College you will attend: _____

Proposed major degree program: _____

Please attach an official transcript with your most recent grades.

Please write and attach an one page essay (250 words maximum) on why you have chosen to study the chemical sciences in college.

Deadline: April 14, 2023

Application Check list

- ☐ Application form/this page
- ☐ Letter of recommendation
- ☐ Student Essay
- ☐ Student Transcript

The Lehigh Valley Section Award For Excellence in High School Teaching

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2023 award for excellence in teaching. The award is designed to promote excellence in chemistry instruction at the high school level. Within the membership boundaries of the LVACS (Lehigh, Northampton, Berks, Monroe, Schuylkill, and Carbon Counties in PA, and Warren County in NJ). We hope that you will identify an outstanding teacher at your school and support them for the award. The Application materials follow Please share them with a teacher or administrator that has shown excellence in the instruction of the chemical sciences.

The application should be completed and submitted by **APRIL 1, 2023** to *John Freeman* at LVACSTOTY@gmail.com as an attachment.

THE LEHIGH VALLEY SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING AWARD PROGRAM FOR 2023

Purpose: To recognize, encourage, and stimulate outstanding teachers of high school chemistry in the Lehigh Valley Section of the American Chemical Society

Nature: The Section Award consists of a cash award and a certificate. A meal at the meeting of the Lehigh Valley section of the ACS at which the award will be presented will be paid. A certificate will also be provided to the recipient's institution for display. The Winner's Application will be forwarded to the Mid Atlantic Regional ACS Division of Chemical Education Award for Excellence in High School Teaching for the following year.

Who May Nominate? Any individual, except a member of the award selection committee or currently enrolled student of the nominee, may submit one nomination or support form in any given year. Prior winners are members of the award selection committee for 10 years post their award.

Who is Eligible? The nominee must be actively engaged in the teaching of chemistry or a chemical science in a high school (grades 9-12) on at least a half-time basis in Berks Schuylkill Carbon Lehigh Northampton or Monroe counties in PA and Warren County NJ. The nomination should clearly demonstrate as many of the following attributes as possible.

- The quality of the nominee's teaching; unusually effective methods of presentation should be emphasized;
- The nominee's ability to challenge and inspire students;
- Extracurricular work in chemistry or a chemical science by the nominee, including science fairs, science clubs, and activities that stimulate the interest of young people in chemistry and related sciences;
- A willingness to keep up-to-date in the field, as evidenced by the pursuit of a higher degree in chemistry or a chemical science, enrollment in refresher courses and summer institutes, regular attendance at scientific meetings, membership in professional organizations, and other means of self-improvement;
- Evidence of leadership and/or active involvement within the profession.

Required components of Nomination Portfolio: The Awards Committee will consider only **complete** nomination portfolios. A complete portfolio shall consist of:

- A Nomination Portfolio Check List (see Page 3), which shall serve as the Portfolio Cover Sheet;
- Nominator Information Form (see page 5);
- Nominee Information Form (see page 6);
- Nominator Recommendation of not more than 750 words submitted by the nominator according to the guidelines outlined on the Recommendation Form (see page 7);
- A current 2-page curriculum vitae or resume that includes a list of the nominee's honors, professional activities, and additional evidence of service to the profession; **NOTE: Limited to no more than two pages and the activities listed must have occurred within the past ten years.**
- A statement by the nominee of not more than 500 words that describes the nominee's teaching philosophy or commitment to the profession.
- At least one, but not more than three, letters of support. One letter, of no more than 400 words, must be from the teacher's current principal or supervisor. Additional letters of support, of no more than 400 words, may be sent by colleagues, members of the American Chemical Society, who are familiar with the nominee's achievements, or former students and parents of former students.
- **NOTE: Some commentary on student reaction to the work of the nominee in either the nominating letter or that of the current principal or supervisor is essential for a well-rounded portfolio.**

Submit nominations to **John Freeman**) by e-mail attachment to LVACSTOTY@gmail.com by **April 1st 2023**

***Please state award title in subject line, and the candidates name ***

THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR
EXCELLENCE IN HIGH SCHOOL TEACHING

2023 Nomination Portfolio Cover Sheet Check List

The following items are required components for a Nomination Portfolio. Please check each item contained in the portfolio. This list, submitted by the nominator, will serve as the cover to every submitted portfolio.

☐ Nominator Information Form;

☐ Nominee Information Form;

☐ Nominator Recommendation Letter of no more than 750 words send as email by Nominator with nominee's name in subject line.

☐ Nominee's Statement on Teaching Philosophy of no more than 500 words;

☐ Nominee's Current CV:

A curriculum vitae or resume that includes a list of the nominee's honors, professional activities, and additional evidence of service to the profession. This must be limited to no more than two pages and the activities listed must have occurred within the past five years.

☐ Letters of Support (no more than 400 words) sent separately as email by principal with nominees name in subject line:

One must be from the teacher's current principal or supervisor.

Up to two additional letters of support may be sent by colleagues, members of the American Chemical Society who are familiar with the nominee's achievements, or former students and parents of former students.

Nominator's

Name: _____

Date: _____

NOMINATION FORM

THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: *April 1, 2023*

Any individual, except a member of the award selection committee or current students of the nominee, may nominate or support *only* one nominee during any given award year. Submit to **JOHN FREEMAN** via e-mail at LVACSTOTY@gmail.com By April 1 2023 Please state award title in the subject line.

The-award will be announced at a Meeting of the Lehigh Valley Section of the American Chemical Society. Dinner will be arranged.

NOMINATOR INFORMATION

Name:	
Company or Institutional Affiliation:	
Present Position (Exact Title):	
Address:	
City:	
State and Zip:	
Telephone:	
Fax:	
e-mail:	
Relationship to Nominee	

NOMINATION FORM

THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: *April 1, 2023*

NOMINEE INFORMATION

Name:	
Present Position (Exact Title):	
School:	
Address:	
City:	
State and Zip:	
Telephone:	
Fax:	
e-mail:	
Website: if appropriate	

Give your current teaching assignment including course titles and grade levels. What is your involvement in extracurricular activities.

- On a separate sheet, provide a statement of not more than 500 words in which you present your teaching philosophy or otherwise describe your commitment to the profession.

NOMINATION FORM

THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: *APRIL 1, 2023*

RECOMMENDATION STATEMENT OF NOMINATOR

Submit a narrative statement of no more than 750 words that describes and comments upon the following:

- The quality of the nominee's teaching. Unusually effective methods of presentation should be emphasized;
 - **NOTE: Some commentary on student reaction to the work of the nominee in either the nominating letter or that of the current principal or supervisor is essential for a well-rounded portfolio.**
- The nominee's ability to challenge and inspire students;
- Extracurricular work in chemistry or a chemical science by the nominee, including science fairs, science clubs, and activities that stimulate the interest of young people in chemistry and related sciences;
- A willingness to keep up-to-date in the field, as evidenced by the pursuit of a higher degree in chemistry or a chemical science, enrollment in refresher courses and summer institutes, regular attendance at scientific meetings, membership in professional organizations, and other means of self-improvement;
- Evidence of leadership and/or active involvement within the profession.