

THE OCTAGON



LVACS AND AACT CELEBRATE OUR HIGH SCHOOL TEACHERS MONDAY, MARCH 16th



Our next section meeting, Monday, March 16th, is High School Teachers Night. This event, co-sponsored by the American Association of Chemistry Teachers (AACT), will begin 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 speakers, laboratory demonstrations and educational exhibits focusing on current High School teaching needs.

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 Lehigh Valley section members, student members and 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.

Dinner: Seeger's Union dining hall and event space starting at 5:30PM.

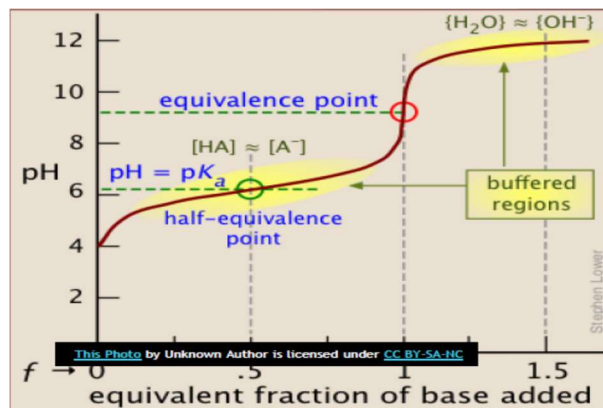
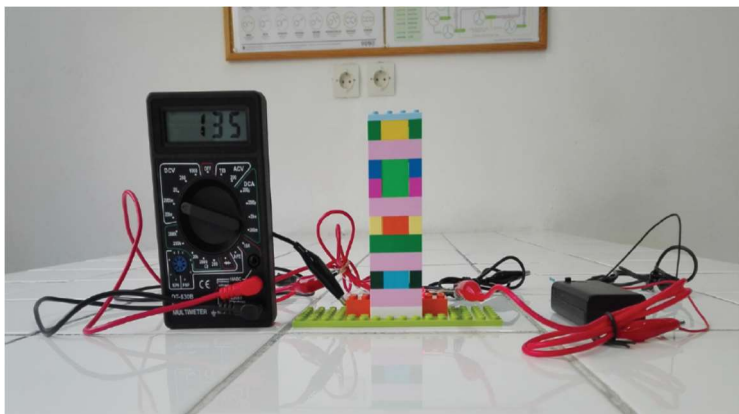
- Exhibits/Posters on display.
- Full dining hall choices available including vegan
- Cost: Complimentary for HS Teachers; \$10 for all other preregistered attendees.

Presentations/demonstrations: Trumbower Hall, Room 130 (the auditorium) at 7:00PM.

Map: <https://www.muhlenberg.edu/media/contentassets/pdf/about/PrintCampusMap.pdf>

Registration and more information: <https://acsmarch2020.app.rsvpify.com/>

CONTACT: Gail Marsella [gailmarsella@muhlenberg.edu]



Spring 2020 LVACS Events

March

Monthly Meeting: High School Teachers' Night,
Muhlenberg College, Allentown
Monday, March 16th at 5:30 pm
CONTACT: Gail Marsella [gaimarsella@muhlenberg.edu]



ACS Spring National Meeting
Philadelphia, PA March 22-26



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

April

Monthly Meeting: 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"
Combined with 50th Anniversary of Earth Day
Annual Chem Club Events and Poetry Contest
Kick-off event Da Vinci Science Center, Saturday, April 18th 10-2
CONTACT: Lindsey Welch [lawelch@cedarcrest.edu]

Special Event: Da Vinci Science Ctr. Hall of Fame Awards Gala
Grand Maestro Award to LVACS
ArtsQuest Center, Bethlehem, April 25th at 5:30 pm
CONTACT: Nigel Sanders [nigel53.sanders@gmail.com]

May

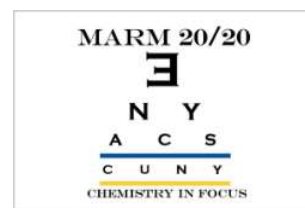
Monthly Meeting: LVACS & ACS 50/60-year Awards Brunch
Two Rivers Brewing, Easton, PA
Sunday, May 17th at 12:00 noon
CONTACT: John Freeman [jcf2@rcn.com]



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]

June

Regional Event: Mid-Atlantic Regional Meeting (MARM) "Chemistry in Focus"
City University of New York, NYC, Friday, June 12th
Regional Chemagination Competition
St. John's University, NYC
Saturday June 13th 12:00 pm - 5:00pm
CONTACT: Brian Gibney [bgibney@gc.cuny.edu]



JUST ADDED! Iron Pigs Game!! **Friday, July 31st** Lindsey Welch [lawelch@cedarcrest.edu]

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 9. Celebrate LVACS at the Da Vinci Science Center's Hall of Fame Gala April 25th
 10. MARM 20/20 and Chemagination 2020
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SPRING 2020 ACS NATIONAL MEETING IN PHILADELPHIA !!

Now's the Time to Decide to Go!

Join our very own Penn State/Berks Chemical Society as they host the Student Chapter Social at the Philadelphia National meeting! They are really excited to be chosen to represent both Penn State and the LVACS at this event!



Register for the ACS Spring National Meeting at:

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

MANY LVACS MEMBERS WILL BE GIVING PAPERS ON A WIDE RANGE OF TOPICS

Here are just a few examples from our leadership team:

Kelley Caflin	CHAS 9: "Chemical safety improvement efforts at Picatinny Arsenal"
Celia Williams	BIOT 116: "Interfacial study of biosurfactants in recombinant protein formulation for transdermal drug delivery applications"
	BIOT 263: "Profiling and quantitation of impurities in carbohydrate excipients used in parenteral formulations" and "Evaluation of the fatty acid composition of polysorbate 80 (PS-80)"
George Ruger	CHAS 13: "Safety in outreach settings"
Jeanne Berk	SCHB 8: "Tap into business to business networking with your SCHB membership"
	CHAS 15: "Use of online platforms for laboratory safety"
Sara Hayik	CHED 1252: "Synthesis of pyridine derivative monoazo dyes and their metal chelation properties"
	CHED 660: "Determination of the thermodynamics of betanin adsorption onto activated charcoal as a lab in the physical chemistry curriculum"
	CHED 1185: "Determination of the relationship between silver nanoparticle ink morphology and electrical properties"
	CHED 1934: "Integrating PASCO chemistry sensors into the general chemistry laboratory: First year retrospective"
Sherri Young	CHED 68: "Organic chemistry laboratory experiences that simulate real-world collaborations"
	CHED 1261: "Improved synthesis and the exploration of alternative linkages of N-benzylamide non-steroidal anti-inflammatory drug conjugates"
	MEDI 340: "In vitro stability of N-benzylamide non-steroidal anti-inflammatory drug conjugates"
Julie Himmelberger	CHED 515: "Exploration of single amino acid changes in GGGPS from Thermoplasma volcanium"
Caroline Multari	CHAS 12: "Enhancing safety through emphasis of biological and toxicological concepts"

**AND THERE ARE SO MANY MORE!
VISIT THE ONLINE PLANNER FOR
THE FULL SCHEDULE:**

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



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. This is an outstanding opportunity to learn about the chemistry research being carried out in the Lehigh Valley area!

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)

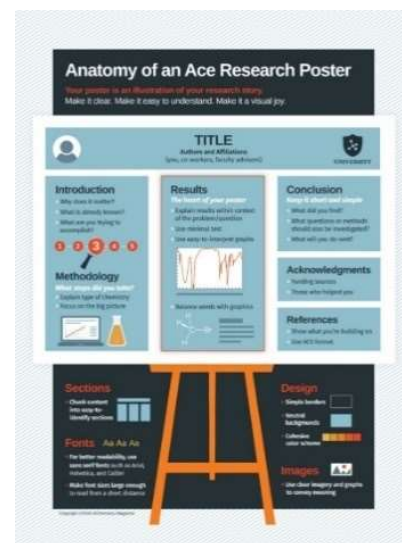
RSVP deadlines: [April 10, 2018 for abstracts](#),
[April 13, 2018 for dinner](#)

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

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

DIRECTIONS TO CAMPUS: <https://www.desales.edu/about/location-directions>

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



UNDERGRADUATE SENIOR AWARDS

This is also the time of year when we honor the top graduating seniors in chemistry and chemical engineering from our Lehigh Valley section's 4-year colleges: Albright, Alvernia, Cedar Crest, DeSales, East Stroudsburg, Kutztown, Lafayette (2 - chemistry and chemical engineering), Lehigh (2 - chemistry and chemical engineering), Moravian and Muhlenberg. Come and congratulate our 'BEST AND BRIGHTEST' for 2020! Faculty Chairs, please contact Pamela Kistler for details.

CONTACT: Pamela Kistler, Cedar Crest College [pdkistle@cedarcrest.edu]



CHEMISTS CELEBRATE EARTH WEEK 20/20 IS NEARLY HERE !

Greetings Lehigh Valley ACS Members, Student Chapters and Affiliates:

I am reaching out to you all this year to request information about your plans to celebrate CCEW 20/20 and the 50th anniversary of Earth Day.

As the coordinator for the Lehigh Valley ACS Section's CCEW, I will have a limited supply of CCEW giveaways starting in the first week of March. They will include Celebrating Chemistry booklets (geared for K-8 graders, in Spanish and English), pencils, balloons, stickers, and temporary tattoos. If you would like access to these giveaways, please email me.

There will be a kick-off event held on Saturday, April 18th at the Da Vinci Science Center in Allentown, PA. Students, faculty and other community members are encouraged to participate. If anyone from your institution wishes to conduct an activity geared for this event, please let me know.

The section would like to help communicate events across the Lehigh Valley Section, so I encourage you to share your activity details with me.

For more information, contact me: Lindsey Welch [lawelch@cedarcrest.edu]

CCEW will run from April 19-25, 2020 and heralds the 50th year since the first Earth day in 1970.

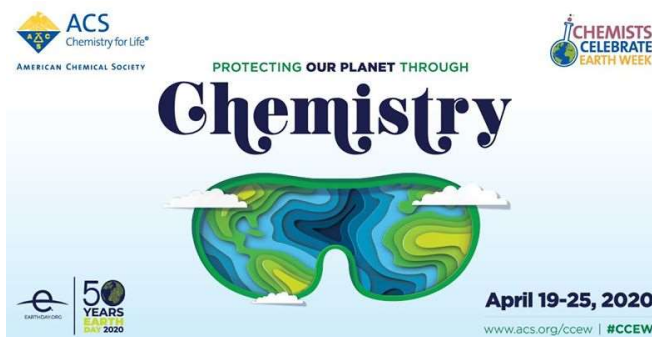
The theme of Earth Day, April 22, 2020 is Climate Action and incorporates a number of initiatives including Earthrise and The Great Global Cleanup. The ACS theme is

“Protecting Our Planet Through Chemistry”

and reminds us that Chemistry has a big role to play in improving our overall sustainability.

Through scientific research and green chemistry

(also known as the science of sustainability), chemists can not only help to clean up the planet, but also keep pollution from happening in the first place.



Speaking of Chemical Celebrations...

We didn't get much traction last fall with the NCW Grand Challenge Award but we know you'll do better next year... so start thinking early!! Plan a really captivating (and Mole-worthy!) NCW outreach event that captures next year's theme “Sticking with Chemistry” (October 18-24, 2020 Glues and Adhesives) and win the Grand Prize! Here's that rubric again:

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 the chapter members?

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



ANNUAL CCEW POETRY CONTEST

Part of CCEW each year is the poetry contest where K-12 students give us their 'spin' on Earth Week and its theme. We're reproducing the competition rules and application form on the following pages.

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: Monday, April 27, 2020

Prizes: Earth Day 2020 Gifts / Gift Card (TBD)

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, "Protecting Our Planet through Chemistry." 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 sustainable chemistry include:

Green chemistry Environment Pollution

Entries will be judged based upon:

- Artistic Merit - use of color, quality of drawing, design & 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.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses, and entries for editorial, advertising, and publicity purposes.



2020 CCEW Illustrated Poem Contest
Protecting Our Planet through Chemistry
ENTRY FORM



Please fill out this form and attach it after the poem. All fields are required. Incomplete forms will invalidate the entry.

The deadline for the Lehigh Valley Local Section Contest is Monday, April 27, 2020.

Student and Organization Information			
Student Name:			
Student Grade:			
Parent/Guardian Name:			
Parent/Guardian Email:			
Parent/Guardian Address:			
Parent/Guardian City:	State:	Zip:	
School or Sponsoring Group (e.g. Boys and Girls Club or Scout Troop, 4-H, etc.):			
Teacher Name:			
Teacher Email:			
School Address:			
School Address 2:			
School City:	State:	Zip:	
Please send any follow up for the student to the <u>parent</u> <input type="checkbox"/> or <u>school</u> <input type="checkbox"/> address.			
Illustration Type (Check one)			
Hand-drawn art <input type="checkbox"/>		Digitally created art <input type="checkbox"/>	
If the poem was digitally created, please name the software used in the box below:			
Judging Category by Grade (Check one)			
K-2 <input type="checkbox"/>	3-5 <input type="checkbox"/>	6-8 <input type="checkbox"/>	9-12 <input type="checkbox"/>
FOR LOCAL SECTION USE ONLY			
Local Section Name:	Lehigh Valley		
NCW Coordinator Name:	Dr. Lindsey A. Welch		
NCW Coordinator Email/Phone:	lawelch@cedarcrest.edu (610) 606-4666 ext. 3615		

Interview: Leading Da Vinci Science Center Toward a STEAM Future for the Lehigh Valley



The Octagon talked recently with Lin Erickson, Executive Director and CEO, Judy Belaires, Director of Philanthropy and Tyler Groft, Senior Museum Experience Manager of the Da Vinci Science Center (DSC) about plans for expansion and how the ACS Lehigh Valley section can help. Tyler began by explaining that the vision for the proposed new facility in Allentown is to “provide a compelling reason to visit by offering an experience which is both fun and interesting” while supporting Da Vinci’s core mission of ‘bringing science to life and lives to science.’ While the details of the future Center are in the very early stages, it is not too early to begin thinking about ways to apply the partnership between LVACS and DSC to guide development of exhibits and programs. Beginning in the fall of this year, teams will be forming to plan several exhibit areas to be included in the new center. One focus that will draw on LVACS’ skill base is to anticipate Environmental, Health and Safety concerns throughout the facility. Another is to provide specific advice for chemically related exhibits in such areas as the local biosphere, health & the human body and innovative, green manufacturing. Of course, there will also be the need for many new volunteers, especially as the center opens, expected in early 2023. Because of the more central location, the proximity of other Allentown cultural attractions and the surrounding neighborhoods, there is a much larger opportunity for cooperative programs and extended hours. One example is to enable a tighter connection with Leonardo Da Vinci’s philosophy of one-ness of science and the arts. In fact, the vision for the new center, ‘Driving Curiosity,’ will encourage visitors of all ages to be, like Leonardo, curious and active participants in their learning through merging STEM with the Arts.

While the new center is being planned and built, the Cedar Crest campus of DSC will continue to provide its established programs of informal science education, career discernment and Da Vincian inspiration to the greater Lehigh Valley community. Career events such as the “Made in America” career fair, March 4th-6th from 10-2, the WISE Forum March 18th from 5-9 pm at The Center at Holiday Inn Lehigh Valley and a wide range of Science Clubs and Camps need our support to be successful. Won’t you ‘pay it forward’ with a small amount of your time to help our young people?



<https://www.davincisciencecenter.org/experience/made-in-america-career-connection-days/>

<https://www.davincisciencecenter.org/wise-initiative/wise-forum/>

<https://www.davincisciencecenter.org/science-clubs/>

LVACS has a special place in this year’s Hall of Fame Awards gala, 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! You will soon be receiving an invitation from Judy Belaires to join in supporting DSC and your ACS section as we lead the Lehigh Valley into the STEAM era!

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

Da Vinci Science Center Grand Maestro Award to be Awarded to Lehigh Valley ACS Section at the April 25th 2020 Hall of Fame Gala



SAVE THE DATE!

DA VINCI SCIENCE CENTER *Gala*
HALL OF FAME

Presented by
HIGHMARK
An Independent Licensee of the Blue Cross and Blue Shield Association

and
Vince & Michelle Sorgi

Saturday, April 25, 2020 • 5:30 – 9:30 PM
ArtsQuest Center at SteelStacks • Bethlehem, PA

Special Honoree Rate

As honorees, members of the American Chemical Society will receive the following discounted rate for our Gala Awards Dinner.

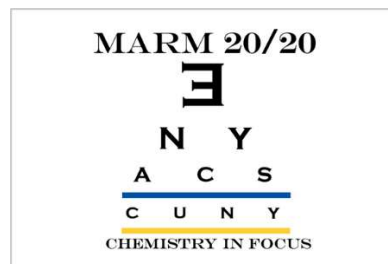
Table of 10: \$1200.00

Tickets are valued at \$175 a person, for a regular table rate of \$1750.

For more information, contact Judy Belaires, CFRE, Director of Philanthropy, at (484) 664-1002 ext. 102 or judy@davincisciencecenter.org.
Sponsorship Opportunities Available

Support your section and the STEAM-promoting activities of the Da Vinci Science Center by attending the Gala at the special honoree rate or make a donation to the Center by co-sponsoring one of the awards such as the Grand Maestro. Contact Judy Belaires: judy@davincisciencecenter.org (484)-664-1002 ext. 102.

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

**MARM 20/20 IN NYC WILL BE AT CUNY****Mid-Atlantic Regional Meeting (MARM)
“Chemistry in Focus”****City University of New York, NYC****Friday, June 12th, 8:30 am – 9:00 pm**ACS Local Section
New York**Registration:** <https://www.marm2020.org/Registration/>**Submit an Abstract (deadline March 9th):** <https://callforpapers.acs.org/marm2020>**Regional Chemagination Competition****St. John's University, NYC****Saturday, June 13th, 12:00 pm – 5:00pm****High School Teachers: Sign up your team for Chemagination 2020!**

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.

High school students are asked to imagine that they are living 25 years in the future, 2042, and are writing for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The editor chooses them to write the cover article for the next issue of the magazine describing a recent breakthrough or innovation in chemistry and its applications that improve the lives of those living in 2042. Along with the article they have the honor of designing the magazine's cover. 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." The article must be written to fit in one of four categories: Alternative Energy, Environment, Medicine/Health, or New Materials.

The local section competition will be completely electronic. Teams should submit their articles and cover design by **April 15, 2020**. The articles will be judged based on the MARM 2020 rules:

https://www.newyorkacs.org/meetings/MARM2020/2020_MARM_CHEMAGINATION.pdf

The winners of the LVACS local section competition will advance to the regional meeting, MARM 2020 sponsored by the New York Section of the ACS. This will be held on Saturday, June 13 from 12:00 noon to 5:00 pm at St John's University, New York, NY. First place category winners from Local ACS Section's Chemagination contests are eligible to participate in MARM 2020. If a first-place winning team chooses not to participate, a second-place team can serve as an alternate. The regional competition will be judged on a poster session, in addition to the article, followed by a presentation or other activity for the students and the award ceremony.

CONTACT: John Freeman, LVACS Chemagination Coordinator [lvacschemagin@gmail.com]



Lehigh Valley Section to Present 2020 Awards at Sunday, May 17th section meeting Two Rivers Brewing, Easton, PA



LVACS will present its annual awards and the ACS 50/60-year awards at our Sunday, May 17th Brunch meeting at Two Rivers Brewing in Easton, PA beginning at 12:00 noon.

The awards for Excellence in High School Teaching, Excellence in Small College Teaching, Volunteer Service, Advancing Diversity and The Foundations in Chemistry Award for a High School Senior matriculating to a Lehigh Valley area college will be presented to five outstanding members of our chemistry community. The chairs for the event, John Freeman and Lorena Tribe, *are seeking nominations for the following three awards:*

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

ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN TEACHING AT SMALL COLLEGES

FOUNDATIONS IN CHEMISTRY AWARD FOR A HIGH SCHOOL SENIOR MATRICULATING TO A LEHIGH VALLEY AREA COLLEGE

The nomination forms for these three awards are attached in an Appendix the back of this newsletter. Please follow the instructions and submit the completed forms to the designated email address listed on the form.

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

ACS Fellows Program: Nominate a Colleague for this signal ACS honor



The American Chemical Society (ACS) Fellows Program was created by the ACS Board of Directors in December 2008 to recognize members of ACS for outstanding achievements in and contributions to science, the profession, and the Society. The nomination period for the 2020 Class of ACS Fellows is now open from **February 1-April 1, 2020**. More information may be found here:
<https://www.acs.org/content/acs/en/funding-and-awards/fellows.html>



LEHIGH VALLEY SECTION ANNUAL REPORT HIGHLIGHTS

Every year each local ACS section submits an annual report of its activities to the national ACS organization. For the information of all our members, the following is a brief summary from the 2019 report as filed by the Executive Committee of the section. More details can be obtained by request to the current section chair, George Ruger [gruger04@yahoo.com] or secretary, Nigel Sanders [nigel53.sanders@gmail.com]

The Lehigh Valley Section of ACS had a year filled with diversity and celebration of our members and the section. The 125th Anniversary served as a driving force for the various activities the section hosted and sponsored and focused on our membership and partners needs across academia, industry and the community we are a part of. The section was strategic in being involved in events such as the "Exploring Your Horizons" Career and Networking Night providing a student career development opportunity as well as the Research Poster Session and Senior Awards Event. These events echoed the section's continued investment in the student chapters and the students within our community and the development as scientists. The section was mindful of the needs of our industry membership and partners and the growing desire for collaboration and connection between industry and academia, which led to sponsorship of event with speakers at monthly meeting, as well as events such as "Industry Night" featuring the Ben Franklin Technology Partners of Northeastern PA's start-up company incubator TechVentures, that showcased our support for these initiatives and meeting those needs. The section continued its work in supporting diversity in chemistry by sponsoring a Mole Day Guest Speaker, Dr. Katherine J. Franz, Chair of the Duke University Chemistry Department at Cedar Crest College. We continued our passion for community engagement by hosting several events centered around Chemist Celebrate Earth Week, Program-In-a-Box and National Chemistry Week. The section continued to support our budding scientists by participating in Chemagination and Chemistry Olympiad activities in 2019. We recognize the value to supporting the initiatives of other sections in support of the ACS organization as a whole and therefore shared events and programs that may be of interests to membership such as the Philadelphia section co-sponsored workshop "The Art of Managing Scientists - Panel Discussion and Networking Event." One of the highlights of of 2019 activities was our 125th Anniversary celebration dinner, which allowed us to come together as a section, and honor all our members, including our 50-year plus members and recognize those who have gone above and beyond with the work they do in support of the section. This event was well received by membership and there was an expressed desire to host more of these events that bring together the membership as a whole. The Lehigh Valley section had a 2019 filled with continued fulfillment of the goals set in our strategic plan, but also growth and exploration with the activities held in 2019 and looking forward to even more upward mobility.

The final budget report of the section for 2019 is given on the next page. It should be noted that the section reported a slight excess for the year.

Of possible interest to some members are the new ACS Governing Documents just released by ACS Secretary and General Counsel, Flint Lewis and effective January 1, 2020. These documents include the Charter, Constitution, Bylaws, Standing Rules and Regulations of the Society. The most significant change is the movement of text from the Constitution to the Bylaws and from the Bylaws to the Standing Rules. These changes permit the Society to be more flexible and efficient in updating its governing documents in the future. A searchable pdf is available: www.acs.org/govdocs

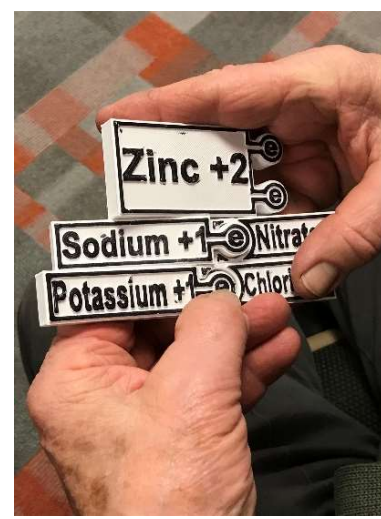
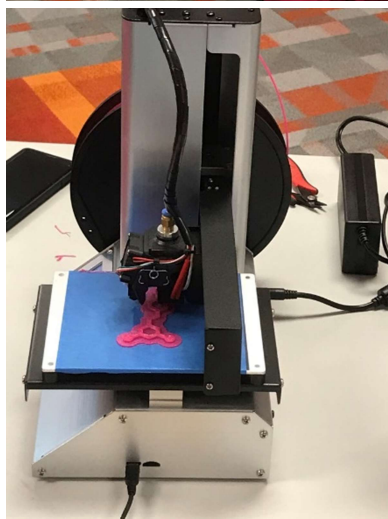
Lehigh Valley Local Section Financial Form 2019
Local Section Financial Form - Revenues and Expenses

Revenues	Amount(USD)
1. Annual ACS Allotment	9589
2. New member commissions	15
3. Donations, contributions	475
3a. Bequests and/or trusts (list amount separately from line 3)	0
4. Rebate from ACS for Councilor travel expenses	4019.04
5. ACS Awards or Grants received (e.g. IPG)	2500
6. Program revenue (includes newsletters, short courses, lecture series, national or regional meetings, etc.)	1405
7. Local section dues, affiliate dues	3351.5
8. Interest, dividends	27.64
9. Special events and activities (describe and itemize in document uploaded to Supporting Materials Tab; the purpose of these is to raise funds other than contributions to finance exempt activities. Include events such as dinner dances, raffles, bingo games, etc.)	
9a. Gross revenue (not including \$475 of contributions reported on line 3)	515
9b. Less direct expenses other than fundraising expenses	0
9c. Net income (or loss) from special events and activities (line 9a less line 9b)	515
10. Meals (include total meals revenue)	0
11. Other revenue (describe and itemize)	0
12.Total Revenues (Add lines 1 through 8 and 9c through 11)	21,897.18
Expenses	
13. Subsidies to subsections, topical groups or affiliate groups	0
14. Awards, scholarships, grants, etc.	3754.71
15. Administrative expenses (not including postage, printing, and shipping)	
15a. Salaries, other compensation	0
15b. Professional fees and payments to independent contractors	0
15c. Occupancy, rent, utilities, and maintenance	20.00
15d. Total administrative expenses (add lines 15a through 15c)	20.00
16. Printing, publications, newsletters, meeting announcements, postage, and shipping	2500
17. Local meetings (include speakers expenses)	8226.51
18. Meals (include total meal expenses)	0.0
19. Travel subsidies to Councilors	5053.79
20. Travel subsidy and fee for Local Section Track at the ACS Leadership Institute	554.80
21. Other expenses (describe and itemize)	0.0
22. Total Expenses (add lines 13, 14 and 15d through 21)	20,109.81
23.EXCESS (DEFICIT)(Line 12 less line 22)	1,787.37

February 20th Meeting Report: 3D Printing Workshop

The February 2020 section meeting was held at in Priscilla Payne Hurd Academic Complex of Moravian College preceded by a social hour and dinner in the nearby Hauptert Union Building. Following dinner, Dr. Jeffrey Bush, Assistant Professor of Mathematics & Computer Science delivered a workshop and presentation entitled “3D Printing of Molecules.” A section business meeting was then convened by LVACS chair, George Ruger.

To begin the workshop, Dr. Bush invited all of the attendees to take their places in computer lab room 114 around several tables where 3D printers were set up for their use. Before explaining the history and basic concepts behind 3D printing and the Fused Deposition Modeling (FDM) method in particular, Jeff instructed the members to choose a model to print from Thingiverse.com. Then the students helped each team get their printer started so there would be time to complete the prints before the end of the workshop. While the models were printing, Jeff turned everyone’s attention to model design software and focused on PyMol© to design and 3D print molecules, inviting participants to use PyMol to build a molecule of their own choosing. He finished his talk by describing the importance of polymer properties in the 3D printing process and giving some future perspectives on the applications of the method. By the close of the workshop at 8:00, most teams had 3D-printed a model as a souvenir. Pictures of the event are attached below.



February 25th ACS Program-In-a-Box (PIB) Report: The Future of Food

This PIB, held at Cedar Crest College, was preceded by a special “plant-based meat” tasting session themed for the event which was “The Future of Food.” Featured for tasting by the group were sausage links sold locally, manufactured by Beyond Meat and LightLife and expertly cooked by our own Jeanne Berk!



The PIB began with introductions of the live participants by host, Kerri Jansen, science reporter and video/podcast producer at Chemical & Engineering News; Selina Wang, Research Director & Professor, UC Davis Olive Center, University of California, Davis; Ricardo San Martin, Research Director & Industry Fellow, Alternative Meat Program, University of California, Berkeley and Daniela Barile, Professor & Chemist, Milk Process Research Lab, University of California, Davis. The three presenters discussed their work, in turn: olive oil chemistry and analysis, alternative meat chemistry and gut microbiome studies to define benefits of food processing waste-based oligo-saccharides for reducing malnutrition and digestive tract inflammation. The webinar was interrupted briefly by a web-streaming issue which shortened the middle talk which was actually a video by Hank Green, host and founder of the YouTube channel SciShow. Brief summaries are given below.

Olive Oil Chemistry and Analysis (Selina Wang, UC/Davis)

The two main quality measurements for commercial olive oil products are total acidity and oxidation value. The first is a diagnostic for extent of triglyceride hydrolysis while the second indicates rancidity. A particularly important new chemical analysis method for olive oils is the TAG (Total Acid Group) profile which defines the amount and type of fatty acids present in the oil. This leads to an “Oil Map” which is a very useful fingerprint of each oil sample and readily distinguishes commercial oil ingredients (e.g. amount of other oils such as canola oil in olive oils). This type of analysis has enabled the identification of ‘virgin olive oils’ which do not meet USDA standards. Another useful chemical application is phenolic compound determination in olive oil processing byproducts which are added to animal feeds.

Alternative Meats (Ricardo San Martin, UC/Berkeley)

One of the less expected key aspects of any alternative to red meats such as ground beef is the visual appearance. The characteristic red liquid which we associate with fresh ‘hamburger meat’ is actually a suspension of myoglobin in water. The myoglobin is released from muscle cells in the meat during processing and cooking. Moreover, cooking releases iron from the myoglobin and this catalyzes reactions that give some of the unique flavor components. Developers of alternatives have been seeking ways to replace myoglobin in their products with a suitable mimic, such as leghemoglobin. Leghemoglobin can be obtained as a natural product from root nodules such as those in soy. However, this is not an economical source, so companies like Impossible Foods have been ‘growing’ their own leghemoglobin via transgenic yeasts. Another important flavor ingredient in meats is umami which comes from glutamates. These can also be obtained from non-meat sources and are well-known food additives.

Gut Microbiome studies (Daniela Barile, UC/Davis)

The science of Glycomics is about the study of prebiotic carbohydrates. A major goal of such work is to discover food ingredients which can reduce both gut pathogen levels and gut inflammation while increasing the levels of desirable gut flora. The example introduced here is utilization of oligosaccharides from dairy wastes such as whey. Whey proteins are already separated from the whey and sold in health food products. The currently unutilized remainder of the whey could therefore be processed to obtain these oligosaccharides to promote better gut health.

LEHIGH VALLEY SECTION OF THE AMERICAN CHEMICAL SOCIETY
2020 EXECUTIVE COMMITTEE

OFFICERS

Chair:
George Ruger
gruger04@yahoo.com



Chair Elect:
Roger Egolf
rae4@psu.edu



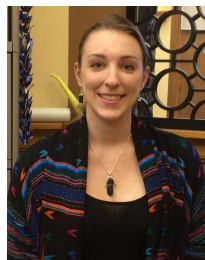
Immediate Past Chair:
Denise Beautreau
deedewwo@yahoo.com



Secretary/Newsletter Editor:
Nigel Sanders
nigel53.sanders@gmail.com
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Treasurer:
Tesia Chciuk
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COUNCILORS

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jrberk@cedarcrest.edu



Kelley Caflin (term ends 12/31/20)
caflinacs@yahoo.com



ALTERNATE COUNCILORS

Lorena Tribe (term ends 12/31/20)
lut1@psu.edu



Celia Williams (term ends 12/31/21)
lvacscma@gmail.com



APPENDICES:
LVACS AWARD
NOMINATION
FORMS

THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING AWARD PROGRAM FOR 2020

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. The meal at the May 17th 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

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.

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 five 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 2020

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

**THE ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR
EXCELLENCE IN HIGH SCHOOL TEACHING
2020 Nomination Portfolio 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 nominees 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, 2020*

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, 2020 Please state award title in the subject line.

The award will be presented at the May 17th Meeting of the Lehigh Valley Section of the American Chemical Society.

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, 2020*

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, 2020*

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.

ACS LEHIGH VALLEY LOCAL SECTION AWARD FOR EXCELLENCE IN TEACHING AT SMALL COLLEGES

You are cordially invited to nominate a colleague to be recognized at the annual awards program of the Lehigh Valley Section of the American Chemical Society (LVACS) to be held at Two Rivers Brewing in Easton on Sunday May 17, 2020 beginning at 12:00 noon. The event will feature a brunch followed by a keynote speaker and the award recognition program.

We are seeking to recognize, encourage, and stimulate high quality teaching and research at small colleges. Please send the nominee's short curriculum vitae, list of publications, and evaluation of the nominee's achievements as a teacher in a small college. This document should clearly demonstrate the candidate's attributes: the quality of the candidate's teaching; organization and efficiency of lab work; research and/or development work; ability to challenge and inspire students; extra-curricular work in chemistry; courses, meetings, presentations, awards, etc. Seconding letters are not essential but as many as three may be included with each nomination. Letters may include careful evaluations of the teacher's abilities by their superiors, associates, or by local section members.

Please contact Lorena Tribe at lut1@psu.edu for any questions pertaining to the nomination for this award. The deadline for reception of your emailed application is **April 1, 2020**.

2020 Foundation in Chemistry Award

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2020 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 plaque, which will be presented to the winner at the May meeting of the Lehigh Valley Section of the American Chemical Society on Sunday, May 17th at our Awards meeting. We have enclosed the guidelines for the award and the application materials. Please post the flyer and feel free to make additional copies as needed.

Please share this information with parents students and guidance counselors. The four-part application should be completed and submitted by **April 10, 2020**. We appreciate your help and thank you for publicizing the 2020 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 sent independently as a separate email, the application form, transcript, and your essay) must be emailed by April 10, 2020 to: lvacsfoundations@gmail.com

Please direct any questions about this award to: John Freeman c/o lvacsfoundations@gmail.com.

Eligible Colleges for Awardees:

Albright College

Alvernia College

Cedar Crest College

DeSales University

East Stroudsburg University

Kutztown University

Lafayette College

Lehigh Carbon CC

Lehigh University

Moravian College

Muhlenberg College

Northampton County CC

Penn State-Berks

Penn State-Lehigh Valley

Penn State-Schuylkill Valley

Reading Area CC

Warren County CC

2020 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 as we will consider financial need in the event we judge more than one student to be equivalent on the basis of merit. Please submit your letter as a PDF or word attachment to an email with the students name in the subject line to lvacsfoundations@gmail.com.

Deadline: April 10, 2020

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 a PDF of an official transcript with your most recent grades. If there are issues with generating a PDF please mail a hard copy to: John Freeman, 220 W Pierce St, Easton PA 18042 by April 8, 2020

Please write an essay using this page as a cover page (250 words maximum = approximately ½ page using 12 point font) on why you have chosen to study the chemical sciences in college and email it to lvacsfoundations@gmail.com.

Deadline: April 10, 2020