

## ACS Maryland Section Volunteer Honored



### Salutes to Excellence Award

The Maryland Local Section Salutes one of our most distinguished members,

**Dr. James A. Saunders**

Retired Chemistry Professor from Towson University.



### 2018 Section Officers:

Chair 2018..... Beatrice Salazar, [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)  
Vice Chair 2018..... Dana Ferraris, McDaniel College, [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)  
Chair-Elect (Chair 2020).... Pumtiwitt McCarthy, Morgan State University, [pumtiwitt.mccarthy@morgan.edu](mailto:pumtiwitt.mccarthy@morgan.edu)  
Secretary 2018..... Louise Hellwig, Morgan State University, [louise.hellwig@morgan.edu](mailto:louise.hellwig@morgan.edu)  
Treasurer 2018..... Angela Sherman, Notre Dame of Maryland University, [asherman@ndm.edu](mailto:asherman@ndm.edu)  
Past Chair (2017)..... Stephanie Watson, N.I.S.T., [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

### 2018 SECTION COMMITTEE ON NOMINATIONS

Nominated by current Chair, Congratulations!

Chair of the Committee on Nominations..... James Saunders, [jsaunders@towson.edu](mailto:jsaunders@towson.edu)  
Additional 4 members: ..... Beatrice Salazar, Chair-2018, [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)  
..... Dana Ferraris, Vice Chair-2018, [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)  
..... Sara Narayan, Stevenson University, [SNARAYAN@stevenson.edu](mailto:SNARAYAN@stevenson.edu)  
..... Sandra Young, RDECOM, [sandra.k.young26.civ@mail.mil](mailto:sandra.k.young26.civ@mail.mil)

### COUNCILORS/COMMITTEES

1. 2018-2020 Dana Ferraris Chair of the Section Program Committee (McDaniel College), [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)
2. 2018-2020 Jan Kolakowski Member of ACS Committee on Economic and Professional Affairs, Chair of Section Finance/Investment Committee, [jek6042@gmail.com](mailto:jek6042@gmail.com)
3. 2017-2019 Merle Eiss Member of ACS Meetings and Expositions Committee, [meiss32@aol.com](mailto:meiss32@aol.com)
4. 2017-2019 Paul Smith Member of ACS Local Section Activities (LSAC) Committee Associate/Chair of Long-Range Planning Committee (MARM-2019) (UMBC), [pjsmith@umbc.edu](mailto:pjsmith@umbc.edu)
5. 2018-2020 Stephanie Watson Member of the ACS Committee on Committees (ConC) Liaison on [Nomenclature, Terminology and Symbols](mailto:stephanie.watson@nist.gov) (NIST), [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov) 

### ALTERNATE COUNCILORS/COMMITTEES

1. 2017-2019 Kelly Elkins Member of the ACS Ethics Committee, [Kmelkins@towson.edu](mailto:Kmelkins@towson.edu)
2. 2017-2019 Pumtiwitt McCarthy Chair of Publicity Committee, [pumtiwitt.mccarthy@morgan.edu](mailto:pumtiwitt.mccarthy@morgan.edu)
3. 2017-2019 Sandra Young Chair of Community Outreach Activities Committee, [sandra.k.young26.civ@mail.mil](mailto:sandra.k.young26.civ@mail.mil)
4. 2018-2020 Michele Foss Committee TBA, [foss.michele@gmail.com](mailto:foss.michele@gmail.com)
5. 2018-2020 Sarah Zimmerman Chair of Member Assistance Committee,\* [scatzim@gmail.com](mailto:scatzim@gmail.com)

\*New 2018 Committee as per Maryland Section Governance Bylaws, nominated by current Chair, Congratulations!  
<https://www.acs.org/content/dam/acsorg/about/governance/charter/lsbylaws/maryland.pdf>

### MEMBERS-at-Large

Suzanne Procell, Edgewood Chemical Biological Center, [suzanne.a.procell.civ@mail.mil](mailto:suzanne.a.procell.civ@mail.mil)  
Rose A. Pesce-Rodriguez, RDECOM, [rose.a.pesce-rodriguez.civ@mail.mil](mailto:rose.a.pesce-rodriguez.civ@mail.mil)  
Sara Narayan, Stevenson University, [SNARAYAN@stevenson.edu](mailto:SNARAYAN@stevenson.edu)  
James Saunders, [jsaunders@towson.edu](mailto:jsaunders@towson.edu)  
George Farrant, [gfarrant@yahoo.com](mailto:gfarrant@yahoo.com)

### [Awards Committee Chairs & Local Section Committees Chairs](#)

#### Maryland Section on the Web:

[maryland.sites.acs.org](http://maryland.sites.acs.org)

#### Webmaster:

Pumtiwitt McCarthy, [Pumtiwitt.McCarthy@morgan.edu](mailto:Pumtiwitt.McCarthy@morgan.edu)

#### Chesapeake Chemist Editor-in-Chief:

Pumtiwitt McCarthy, [Pumtiwitt.McCarthy@morgan.edu](mailto:Pumtiwitt.McCarthy@morgan.edu)

#### Contact us at:

[acsmarylandsection10@gmail.com](mailto:acsmarylandsection10@gmail.com)

## CHAIR'S MESSAGE

BEATRICE SALAZAR

[Maryland Section](#)



Welcome to our final issue of the 2018 Chesapeake Chemist!

2018 has been a year full of activity and fulfillment. Annual programs such as Women Chemists, Student Awards, U.S. National Chemistry Olympiad, Earth Day – Tour of Montebello Water Filtration Plant-I, Seniors Chemist Awards Luncheon, Braude Award Lecture and Remsen Award Lecture, were all very well attended. There were plenty of networking opportunities. Many graduate and undergraduate Chemistry students as well as distinguished chemists were celebrated for their work with special awards. These included Dr. Jocelyn McKeon Associate

Professor, Chemistry Department at NDMU (Braude Award), and Dr. Chad Mirkin from Northwestern University (recipient of the 73<sup>rd</sup> Ira Remsen Award). Two programs were introduced: Baltimore Museum of Art Tour for Chemists and tour of the Peabody Heights Brewery, a local brewery in Baltimore. We also had two extra tours of the Montebello Water Filtration Plant-I; one for college students and the other for scientists from the community.

In addition to our regular programs, volunteer members of the local section attended the Leadership Institute Meeting in Dallas and the ACS National Meetings in New Orleans and Boston. We presented posters at the national meetings, had a big celebration of the 50th anniversary of Project SEED and placed a seed to create a new program for Senior Chemists. This past October we had successful elections of new officers for 2019 and in late November we began a Teacher Enrichment Program (TEP) collaboration with new society members of the local section from CCBC, a great opportunity to share our K-12 Outreach programs.

I must add that the near future of our local section looks exciting. We have a recipient for the Maryland Chemist of the Year Award, Dr. Jared DeCoste from Edgewood. We are looking forward to his lecture that will take place in February 2019. We also have three nominees for volunteers' awards this year, some of our members are the recipients Dr Angela Sherman and Dr. James A. Saunders. All this is covered in our Chesapeake Chemist newsletter. We are proud to hand in to the ACS Maryland Local Section an up-to-date website with ten 2018 Chesapeake Chemist newsletters for the first time; the website and newsletters are full of details on our history, programs and event reports. For the first time our local section members and participants wrote articles for the newsletter. We are grateful to all who collaborated; these collaborations improved the quality of our newsletter and made it very interesting reading.

One of the Maryland Section's goals is to support its members, encourage their personal development and allocate funds for members to attend events for professional advancement. Please take advantage of these opportunities. Contact us so we can direct you to the right program(s). You can contact me at [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com) or contact any member of the Executive Committee (see page 2 of each Chesapeake Chemist issue). Thanks to you all!

*Beatrice Salazar*

ACS - Maryland Section Chair-2018

*Information is key* continues keeping you informed in detail about activities at the Maryland local section.

## Information is Key

The following includes a background on ACS and the Maryland Local Section, information on our website, and executive committee meetings and more section's programs for 2018. Please check the *2018 Year Events* to see in detail each month of activities. For information on previous month's events or other past activities please refer to Chesapeake Chemist publications: [January](#), [February](#), [March](#), [April](#), [May](#), [June](#), [July](#), [September](#) and [October](#). Our tenth issue is this one. Enjoy!

### III. Executive Committee Meetings

Plans for this year include four regular executive committee meetings:

**First** executive committee meeting: **Monday Feb. 12, 2018** at Notre Dame of Maryland University

**Second** executive committee meeting: **Tuesday, April 24, 2018** at Stevenson University

**Third** executive committee meeting: **Monday, September 24, 2018**, UMBC Chemistry Department

**Fourth** executive committee meeting: **Thursday, December 13, 2018**, Notre Dame Of Maryland University

Exact dates will be announced approximately two weeks prior to each meeting. Please allocate time in your **schedules**. **An extra meeting will be assigned to discuss [MARM-2019](#). Dates could change. Please use our website to stay informed on exact dates. For [minutes](#) of previous meetings please check the website.**

**If you have any event to be considered, please contact us before each month's meeting** or send us the new event fund request form (see website) to any member of the executive committee.

## The Maryland Section Program for 2018 continues...

All ACS members are welcome to our local section activities, lectures and events. They could bring new initiatives to us and ask for support on their activities. We are good at collaborating.

DECEMBER

**Chemist of the Year Award Event (Don't miss it in February 2019!)**

## Salutes to Excellence Award

The Maryland Local Section Salutes one of our most distinguished members,

**Dr. James A. Saunders**

Retired Notre Dame of Maryland University  
Chemistry Professor from Towson University.  
December 13, 2018

## Biography

### James A. Saunders, PhD



Dr. Saunders received a Bachelor of Arts in Zoology from University of South Florida (1967-1971), his PhD in Botany from Miami University, Ohio (1971-1975), and did his postdoc in Department of Biochemistry & Biophysics at University of California at Davis (1975-1977). He spent over 26 years as a Plant Biochemist with the United States Dept. of Agriculture in Beltsville, Maryland, in the Tobacco Laboratory and Drug Crops Laboratory, among other assignments focusing on the chemistry and medicinal effects of secondary natural plant products especially those found in Tobacco, Cannabis, Opium Poppy, Coca and Chocolate crops. He served for over seven years as Director of Molecular Biology, Biochemistry & Bioinformatics at Towson University as a Professor in a joint faculty position in both the Department of Biological Sciences and the Department of Chemistry.

He owned and operated Native Seeds, Inc, an agriculture retail wildflower seed business producing and selling wildflower seeds for the retail market (1981-1997). His agricultural background includes growing up on a family farm and early career positions working in farming, ranching, and commercial chicken production 1963-1969. He served as the Greenhouse manager for Miami University (1971-1972), and lives on a small horse farm in central Maryland. As a federal employee he managed approximately 8000 sq. ft of greenhouse space for multiple plant use and maintained a Maryland certified pesticide applicators license from 1978 to 2003. His research interests have included plant biochemistry of secondary natural products, plant/insect interactions, subcellular localization, the biochemistry of drugs of abuse, smoking and health tobacco issues, and the chocolate industry; with expertise in molecular biology with an emphasis on DNA fingerprinting, gene transfer and gene expression methodology. He has expertise in molecular biology with emphasis on DNA fingerprinting, gene transfer and gene expression methodology. He has served on advisory boards in plant genomics, natural product plant biochemistry, gene transfer, extraction technologies, hybridization, and DNA finger printing. He has published 95 career publications, edited 9 books and made over 300 scientific presentations and has participated in teaching at more than 10 different university settings and obtained approximately \$3,000,000 in career grants and contracts.

Dr. Saunders has served in the 3-year Chair leadership position of Maryland Section of ACS and as a Member at Large as well as serving in leaderships for multiple scientific societies and a variety of teaching and mentoring organizations developing enhanced experiences for K-12 and college science organizations. He has taught undergraduate and graduate level science classes at Towson University, University of Maryland College Park, Stevenson University, Catholic University, Cairo University, and the NIH among other locations. He has been active in more than 500 science fairs, the development of multiple teacher recertification courses and the direction of more than 30 lab oriented multi-day workshops both nationally and internationally. He has mentored and placed over 1000 students with individual research experiences at both high school and college levels, assisted in the development of curricula for multiple biotechnology programs, and served on advisory boards for more than a dozen academic, business and scientific organizations.

#### [Slide Video of one of the most interesting talks by Dr. J.A. Saunders](#)

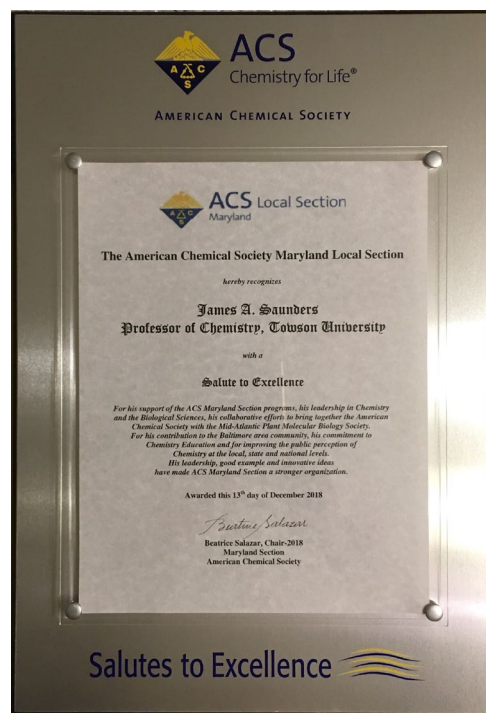
Dr. Saunders has presented chocolate talks three times to ACS, 2005 at Notre Dame of Maryland University, 2008 at Anne Arundel Community College and at McCormick in 2014 with the ACS Cannabis talk 2016.

To congratulate or contact Dr. Saunders please use his e-mail address: [jasaunders@towson.edu](mailto:jasaunders@towson.edu)



Dr. James A. Saunders received one of the most prestigious awards given to an ACS volunteer in the Maryland Local Section in recognition for outstanding achievements and service to the Local Section, the community and for making a positive impact on everyday life of his colleagues and students. Dr. Saunders received an ACS commemorative plaque (see picture) on December 13, 2018 at Notre Dame of Maryland University. Photos courtesy of Beatrice Salazar.

The members of the local section took the opportunity to celebrate Christmas together and welcome Dana Ferraris as chair for 2019, Congratulations!



# Maryland Chemist of the Year Award



**Dr. Jared DeCoste**

## **Edgewood Chemical Biological Center**

*“Interdisciplinary Approaches to Metal-Organic Framework Design: A Scientific Playground & Collaborative Opportunity”*

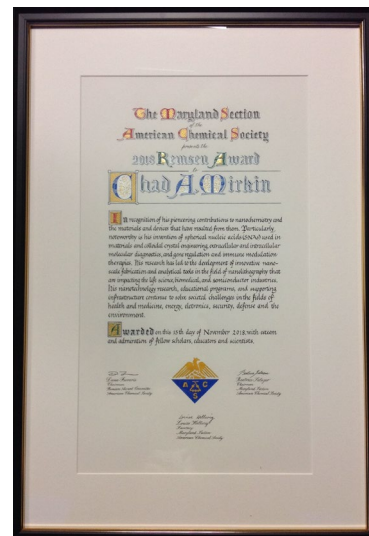
**Abstract:** Metal-organic frameworks (MOFs) are highly porous, modular materials made of simple metal/metal-oxide and organic building blocks. To date thousands of MOF variants have been synthesized, and tens of thousands have been theorized in the literature. This leaves a wide area of potential applications for the mind to explore, including gas storage, catalysis, sensing, drug delivery, and more. With an ever expanding MOF community it has become imperative that in order to explore the breadth of Army relevant applications for MOFs, collaborating with external groups and establishing a robust and diverse internal team are absolute musts. A variety of MOF applications and unique interdisciplinary approaches will be discussed in the context of these strong collaborations and a diverse team. For instance, novel MOF analogs were designed for the photocatalytic oxidation of the chemical warfare agent sulfur mustard via incorporation of various photosensitizers, including pyrene, porphyrins, and fullerene, within the MOF structure. One such porphyrin analog was synthesized in *E. coli* by overexpressing the enzymes used in the Shemin pathway for the synthesis of protoporphyrin IX. Unique, interdisciplinary approaches, such as using synthetic biology, expand the ever-growing MOF field into a seemingly endless playground.

**Bio:** Dr. Jared DeCoste is a Research Chemist at the Edgewood Chemical Biological Center (ECBC) in the Protection and Decontamination Division. He earned his Ph.D. at SUNY Binghamton under Professor David Doetschman on the decontamination of chemical hazards using zeolites. His last 8 years of experience at ECBC have mainly focused on the development of metal-organic frameworks (MOFs) and other novel materials for the remediation of chemical threats. His work has led to more than 50 manuscripts, 50 oral presentations, and 5 patents, on his research. His work has been highlighted by periodicals and news outlets including Chemical and Engineering News, Materials Today, Fox News, Science Daily, CBRNE World, and Nature. Dr. DeCoste has been recognized through numerous awards including the Achievement Medal for Civilian Service, ECBC’s Rookie of the Year for Outstanding Early Career Achievement, ECBC’s Safety Award (3X), ECBC’s STEM Volunteer Award (2X), and Leidos’s Publication Prize for Physical sciences. His work as the Principal Investigator of the Biological Engineering for Applied Materials Solutions (BEAMS) program has been a highlight of his career as it has led him to collaborate and innovate in ways that only working in a highly interdisciplinary field allows. His work has always revolved around finding unique ways to progress science through working together, as evidenced in the pride he takes in aiding others through mentorship, encouraging collaboration, and developing opportunities to learn and evolve in the ever changing scientific landscape.

***Congratulations to Dr. DeCoste! Date and location of the awards dinner will be in the next issue of the Chesapeake Chemist newsletter!***

# The Remsen Award

**Dr. Chad Mirkin, Professor at Northwestern University, was the recipient of the 2018 Remsen Award.** He presented his presentation was, "Colloidal Crystal Engineering with DNA" at the November 15<sup>th</sup> award dinner held at Remsen Hall on the Homewood campus of Johns Hopkins University.



Photos courtesy of Beatrice Salazar



# THE BRAUDE AWARD CEREMONY

Notre Dame of Maryland University Associate Professor Jocelyn McKeon is the Braude Award winner of 2018. She received a plaque and a monetary award to support her programs carried out with undergraduate Researchers. She presented her work with the title, "Identification of Extracted Antioxidant Compounds and Quantification of their Binding Affinities with Proteins" at the October 25<sup>th</sup> Award dinner held at Notre Dame of Maryland University.



# CHEMISTRY WEEK 2018

Children and parents at Miller Branch Library (Howard County Library System) observing LEDs through double diffraction glasses.



Children and parents at Roland Park Branch (Enoch Pratt Library System) working with UV sensitive beads



# Teacher Enrichment Program (TEP) STEM Teacher Round Table



ACS Maryland Section  
and the community

TEP

Teacher Enrichment program

Figure 1: 2<sup>nd</sup> click on the picture above to see some the presentation slides



**Natasha Schuh-Nuhfer, Ph.D.** Director, Teacher Enrichment Program, TEP and coordinator of STEM Teacher Roundtable in Baltimore invited ACS Maryland Section's current Chair Beatrice Salazar and 4 other speakers from industry, academia, government, and local STEM organizations. The Meeting took place on **Thursday, November 28th** from **4:30-6:30pm** at CCBC's Catonsville campus.

The STEM Teacher Roundtable focused on exciting students to STEM careers and outreach opportunities in the Baltimore area. Each speaker talked for 15 minutes about what they do, advice for students to be successful in their STEM field, and any opportunities for students or teachers with the company, organization, or university to explore STEM subjects further. After the presentations, there was an open discussion, allowing teachers to ask specific questions to the speakers or the panel as a whole. More information can be found at <https://www.cce.org/teacher-roundtables>.

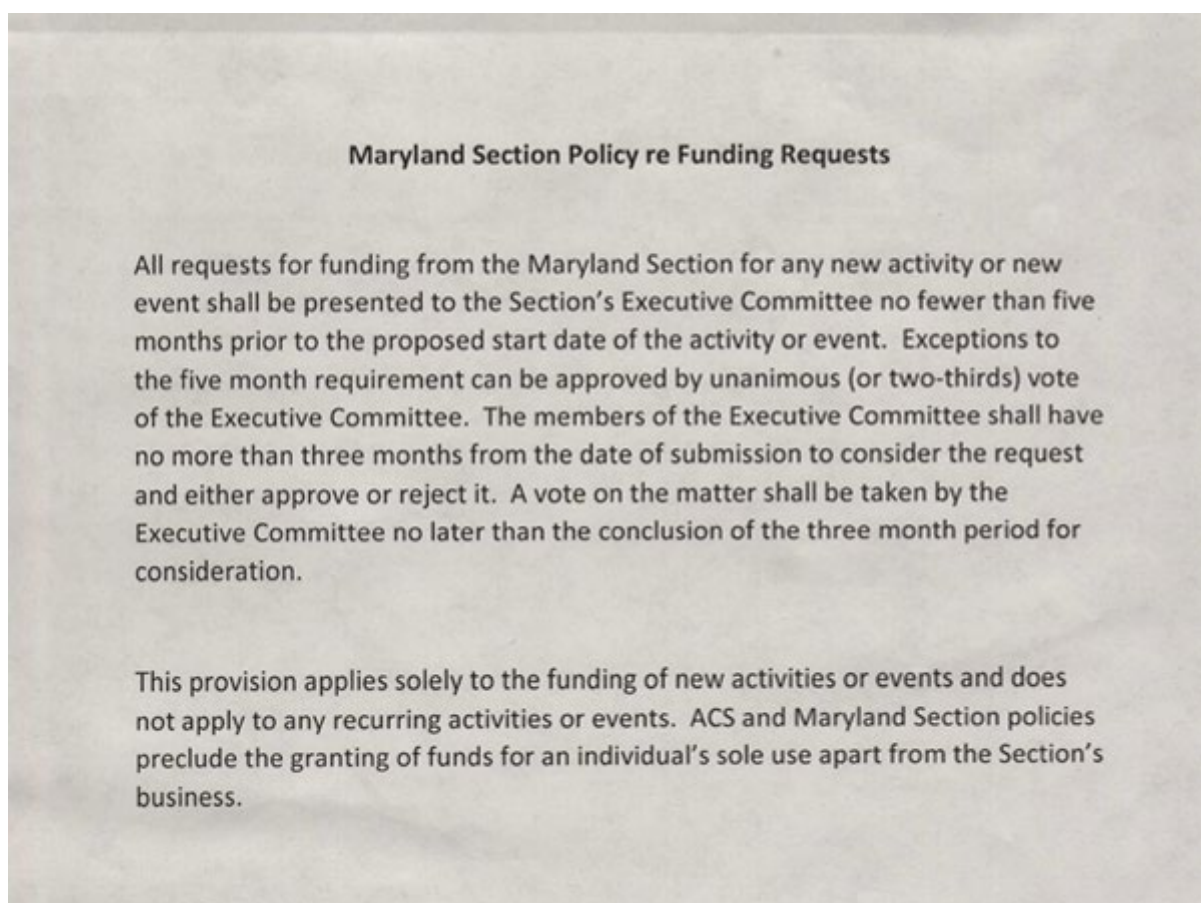
The Teacher Enrichment Program (TEP) provides opportunities for middle and high school teachers in select states to connect with scientists and engineers from industry and academia to explore research and development taking place in their communities and make connections to local STEM professionals. All TEP resources and professional development events are cost-free to participants.

The round table gave ACS Maryland Section the opportunity to highlight the outreach activities provided by the Maryland chapter of the American Chemical Society for middle and high school teachers and their students. This was the first Roundtable for the Baltimore area stated Dr. N. Schuh-Nuhfer, after successful professional enrichment sessions in the city for the last four years. TEP is eager to highlight opportunities for teachers and students within Baltimore city and surrounding communities.

For more Information Contact: **Beatrice Salazar** Chair-2018 ACS Maryland Section or **Natasha Schuh-Nuhfer, Ph.D.** Director, Teacher Enrichment Program, TEP Center for Excellence in Education at CCBC her contact is [8201 Greensboro Drive, Suite 215 | McLean, VA 22102](mailto:nschuh@cce.org) (703) 448-9062 ext. 222 | [nschuh@cce.org](mailto:nschuh@cce.org) On the Web: [Website](#) - [Facebook](#) - [Twitter](#) - [LinkedIn](#)

# New Regulation for Requesting Funds for New Activities, Events or Presentations

All members of the Maryland Section who want to submit a request for funds from the Local Section for a new activity, event, science café, poster presentation etc. must comply with the following document redacted by Merle Eiss, Councilor and Sandra Young, Alternate Councilor (September 2018). In addition, a form stating the purpose of the event and budget will have to be completed and submitted to vote by members of the local section Executive Committee. The form will be posted in our website [www.maryland.sites.acs.org](http://www.maryland.sites.acs.org).



Feel free to express your opinion and/or concerns to any member of the Local Section board, see page 2 of any Chesapeake Chemist newsletter.

## Programs for High School Teachers and Students

### **Research Science Institute (RSI) Applications Now Open!**

The Center for Excellence in Education (CEE) and Massachusetts Institute of Technology (MIT) cosponsor the Research Science Institute (RSI), a free six-week program that nurtures high school scholars to careers of excellence and leadership in Science, Technology, Engineering, and Mathematics (STEM). CEE seeks talented 11<sup>th</sup> Grade (or equivalent) STEM Students who have a desire to complete an unforgettable research program through the RSI. The 2019 RSI program will be held on the MIT campus June 23<sup>rd</sup> to August 3<sup>rd</sup>. The program is cost-free to students except for travel to and from MIT. Deadline to apply is **January 15<sup>th</sup>!** Students interested in this program should visit the CEE website at <http://www.cee.org/apply-rsi> for more information about the application process. *Questions about RSI should be directed to Maite Ballesterro, Executive Vice President of Programs & Administration, at [maite@cee.org](mailto:maite@cee.org)*

### **USA Biology Olympiad (USABO) Registration Now Open!**

Teachers and students are invited to participate in the 2019 USA Biology Olympiad (USABO). The USABO is a three-tiered competition that demands the very best of students in theoretical and laboratory knowledge in biology. The USABO culminates with the National Finals at UC San Diego in June 2019 for the top 20 students. The final four students will form Team USA to compete at the International Biology Olympiad in Szeged, Hungary, from July 14<sup>th</sup>-21<sup>st</sup>. Those interested in learning how to participate in this year's Olympiad should visit the USABO website at <https://www.usabo-trc.org>. Students should check the Student Corner for study resources and how to form a USABO Club. Registration closes **January 16<sup>th</sup>!** *Questions about RSI should be directed to Dr. Frank Stearns, Manager of the USABO, at [fstearns@cee.org](mailto:fstearns@cee.org)* Contacts: **Beatrice Salazar, Chair-2018. ACS Maryland Section, [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)** or **Natasha Schuh-Nuhfer, Ph.D., Director, Teacher Enrichment Program, Center for Excellence in Education, 8201 Greensboro Drive, Suite 215 | McLean, VA 22102. (703) 448-9062 ext. 222 | [nschuh@cee.org](mailto:nschuh@cee.org) On the Web: [Website](#) - [Facebook](#) - [Twitter](#) - [LinkedIn](#)**

## 2019 CHEMAGINATION COMPETITION

We are pleased to announce that the Maryland Section of the American Chemical Society will be sponsoring a 2019 Chemagination Competition. 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." The article is written to fit in one of four categories: Alternative Energy Sources, Environment, Medicine/Health, or New Materials. In addition to the article, students are asked to design a cover for the magazine.

It is a great learning experience for students. In addition to using and adding to their knowledge of science and chemistry, they can improve their "soft" skills of creativity, teamwork and public speaking, skills that will serve them well in their future careers.

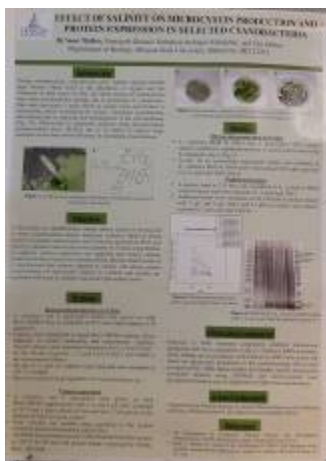
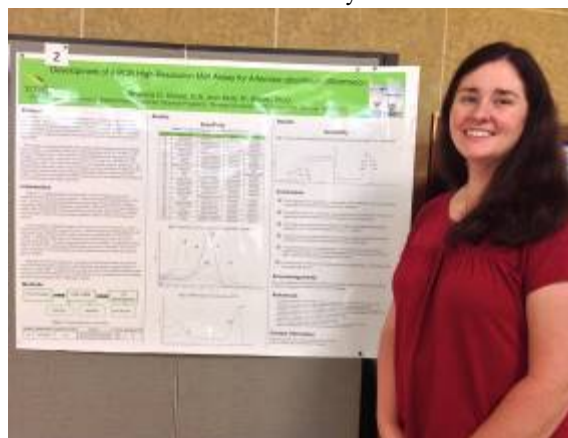
There will not be an onsite competition. Rather student teams will be asked to submit an article and video presentation of their "research. First Place winners in each category will go on to compete in the 2019 Mid Atlantic Regional Competition will be held on Saturday, June 1 from 12:00 pm to 5:00 pm at the University of Maryland, Baltimore County (UMBC) in conjunction with MARM 2019 sponsored by the Maryland ACS Section.

Please contact George Farrant ([garrant@yahoo.com](mailto:garrant@yahoo.com)) for more information about this contest and the rules of the competition. Any and/all high Schools in our area are encouraged to compete.

# SUCCESS STORIES-2018

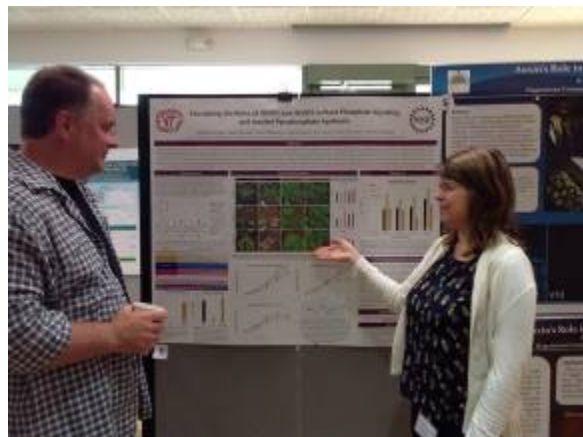
**The 35th Mid Atlantic Plant Molecular Biology Society Annual Conference (AMAPMBS)** was held on August 14th and 15th, 2018 at the Patuxent Research Refuge 10901 Scarlet Tanager Loop in Laurel, MD 20708. One hundred and four registered participants attended the event with details of the meeting published on the MAPMBS website at <http://wp.towson.edu/mapmbs>. The society encourages presentations of research in the form of poster presentations as well as short oral talks from all participants in addition to a slate of 10 invited speakers on topics related to plant or plant viral Molecular Biology, Biochemistry, or Bioinformatics. In addition, we feature a special poster competition for the best poster for early career scientists at the levels of undergrad and grad students, technicians, and postdoc researchers which compete for cash awards and certificates. The goals of the meeting are to facilitate networking and the exchange information between plant researchers in the Mid-Atlantic region.

Photos courtesy of Beatrice Salazar



Some participants and members of the Maryland Section of the American Chemical Society:

- Morgan State University
- Stevenson University
- Towson University
- UMBC



This year, thanks to the collaboration of Dr. James Saunders, treasurer, organizer and editor of the AMAPMBS we are participating in their events. The Biology Society members are also invited to ACS Maryland Section events. We expect this partnership to improve and increase in membership on both societies.

**Contact: Dr. James A. Saunders, Chair Nominations & Elections Committee, Maryland Section of the American Chemical Society and Treasurer, Mid Atlantic Plant Molecular Biology Society**

14590 Triadelphia Mill Road, Dayton, MD 21036 [jasaunders@towson.edu](mailto:jasaunders@towson.edu) 443-386-4695

## **SUCCESS STORIES: 2018 U.S. National Chemistry Olympiad Participant Made Honors**

High School student Kevin Wang received honors in his U.S. National Chemistry Olympiad. Kevin participated in the Maryland section with other 13 nominated students. He was one of 1300 students who competed nationwide.

## **USA Team wins 4 gold medals at the 50th International Chemistry Olympiad. 296 students from 76 countries!**

U.S. National Chemistry Olympiad program proudly announces the extraordinary performance of the Alpha Lambda Team at the [50th International Chemistry Olympiad](#) competition, which concluded July 29, 2018, in Prague, Czech Republic.

**Jeffrey Shi** of Marcellus High School, NY won the fourth highest-ranking gold medal; place 4<sup>th</sup>

**Michelle Lu** of Pomperaug High School, CT, place 10<sup>th</sup>

**Andrew Wu** from Park Tudor School, IN, place 12<sup>th</sup>

**Yutong Dai** of Princeton International School, NY, place 13<sup>th</sup>



## **SUCCESS STORIES Update on Student Travel Awards and its impact to Chemistry Safety**

Sarah Ashleigh Wirick and her professor Christopher Stromberg research were featured in C&EN, March 26 edition. Congratulations!

### **Some safety eyewear fails to protect against ultrafast lasers**

Users should test eyewear under their own working conditions, researchers suggest by Jyllian Kemsley

March 26, 2018 | Vol 96, issue 13

C&EN website <https://cen.acs.org/safety/lab-safety/safety-eyewear-fails-protect-against/96/i13>

To Maryland Section Executive Board: *“Thank you. That feature was a direct result of us being able to attend the meeting, which we couldn’t do it without the Maryland Section’s support! Thanks, Chris”* Christopher Stromberg.

Abstract ID: 2860140

**Femtosecond laser eyewear protection: Measurements and precautions** Maximilian Riedel-Topper<sup>1</sup>, [Sarah Wirick<sup>1</sup>](#), Joshua A. Hadler<sup>2</sup>, Brian G. Alberding<sup>3</sup>, Edwin J. Heilweil<sup>3</sup>, [Christopher J. Stromberg<sup>1</sup>](#)

<sup>1</sup>Department of Chemistry and Physics, Hood College, 401 Rosemont Ave, Frederick, MD 21710

<sup>2</sup>Applied Physics Division, Physical Measurement Laboratory, NIST Boulder, CO 80305

<sup>3</sup>Radiation Physics Division, Physical Measurement Laboratory, NIST Gaithersburg, MD 20899

Unlike continuous-wave lasers, femtosecond pulsed lasers have wide spectral bandwidths and extremely high peak power. Lasers such as Ti:Sapphire oscillators also have an adjustable center wavelength. These factors become an issue when selecting eyewear protection, as the eyewear may not protect the user from the entire laser spectrum, and the integrity of the eyewear material

may be compromised by the high peak powers. This study was a continuation of a previous study that measured the effective optical densities of commercially donated filter samples. In this study, the same samples were tested to characterize their potential modes of failure using a 1 kHz Ti: Sapphire regenerative amplifier which generated ca. 80 fs pulses with various wavelengths, powers, repetition rates, and beam spot sizes. For some filters, the wide bandwidth and variable center frequency of the laser caused the observed optical densities to be significantly lower than the supplier's rating at the center frequency. The observed modes of failure included melting, burning, bleaching, and saturable absorption behavior. Several filters transmitted several orders of magnitude more light than the supplier's suggested optical density ratings without any physical signs of damage. In general, plastic lenses were considerably more likely to fail, while all glass samples tested maintained their integrity under the conditions tested. The results of these experiments indicate that eyewear protection should be tested under the given experimental conditions to determine their efficacy before use.

### **SUCCESS STORIES: 2018 Project SEED Program**

Morgan State University hosted an intern from Baltimore Polytechnic High School this summer, Rudy Diaz, through Project SEED. Rudy worked in Dr. Fasil Abebe's lab on rhodamine-based fluorescent and colorimetric chemosensors. Rudy (center) was partnered in the lab with Morgan Chemistry major, Khalil Makins-Dennis (right).



### **Update on Project SEED Alumni & 50<sup>th</sup> Anniversary Celebration!**

Corshai Williams, formerly a student at Western High School, was a Project SEED high school student at Morgan State University during the summer of 2013 (working with Dr. Yousef Hijji) and the summer of 2014 (Dr. Puntiwitt McCarthy). We have now received word

that she has been accepted at MIT for a PhD in Chemistry with a full scholarship and teaching assistant position! Congratulations Corshai! The ACS Project SEED summer research program allows economically disadvantaged high school students to intern in an academic, industrial, or government laboratory.

<https://www.acs.org/content/acs/en/education/students/highschool/seed.html> Corshai's stipend was paid by the national ACS (50%) and by the Maryland Section (50%).

### **This year we celebrate the success and 50<sup>th</sup> Anniversary of Project SEED!**

Participating members of the Maryland section:

Puntiwitt McCarthy, PhD, Chair Elect-2018, MD Section – Morgan State University

Louise Hellwig, PhD, Secretary-2018, MD Section – Morgan State University

Takashi Tsukamoto, PhD, Past Chair-2011, MD Section - Johns Hopkins University

Beatrice Salazar, MS, Chair-2018, Maryland Section of the American Chemical Society



## SUCCESS STORIES: 2018 Outreach Volunteer of the Year Award



Dr. Angela Sherman (Chemistry Department Chair at Notre Dame of Maryland University and Maryland Section Treasurer) has received the 2018 Outreach Volunteer of the Year Award for her commitment to the local section and the outreach programs. An announcement of the award and her picture came out in [February 8<sup>th</sup>](#) on the ACS website.

## NEW PROGRAMS



### New Program for Senior Chemists

[ACS Senior Chemists](#): Message from the ACS Senior Committee Chair

<https://www.acs.org/content/acs/en/membership-and-networks/senior-chemists.html>

Information on how to Start a [New Senior Committee](#) at your Local Section:

<https://www.acs.org/content/dam/acsorg/membership/senior-chemists/senior-chemists-starter-kit.pdf>

## Announcements

### NEW MARYLAND SECTION OFFICER POSITIONS, Congratulations!

The committee on Nominations and Election presented its report on the new elected officers for 2019. The elections took place during the month of October 2018, thank you for casting your votes.

**Chair-Elect**, 3 year term, Dr. C. Eric Cotton, CCBC

**Treasurer**, 1 year term, Dr. Angela Sherman, Notre Dame of Maryland University

**Secretary**, 1 year term, Dr. Louise Hellwig, Morgan State University

**Members At Large**, 1 year term,

Dr. Rose Pesce-Rodriguez, ECBC

Dr. Sara Narayan, Stevenson University

Dr. James Saunders, Towson University (retired)

Dr. George Farrant, CCBC (retired)

Dr. Suzanne Procell, ECBC

## **AWARDS:**

Dr. Pumptiwitt McCarthy, Vice-Chair-2019, Travel Award to attend the ACS Leadership Institute Meeting  
Dr. C. Eric Cotton, Chair Elect-2019, Travel Award to attend the ACS Leadership Institute Meeting

## **Undergraduate and Graduate Student Travel Grants**

Undergraduate and Graduate students may apply to the ACS Maryland Section to receive up to \$500 for travel and expenses to attend the Spring ACS National Meeting in Florida in 2019. This is open to ACS members who are enrolled full time in a college or university in the Maryland Section. The application should include:

- The meeting you plan to attend along with location and dates
- Your ACS membership number
- An estimated budget (cost for travel, registration, lodging, and meals)
- A 250 word essay describing your motivation for attending the meeting
- A copy of your abstract and the abstract number ACS gave it when your abstract was accepted
- A letter of support from your faculty advisor.
- Please state what would be the most convenient way for the check to be made out, in the event you are awarded a travel grant.

Applications for the Spring 2019 national ACS meeting in Orlando FL will be accepted starting December 1, 2018. Decisions will be announced January 20, 2019. To a certain extent the decisions will be made on a first come, first served basis; however the goal is to allow students from as many schools as possible to attend, so special consideration will be given to the first student who applies from each college/university. We especially encourage schools which have never had a student apply for a travel grant, to consider applying for a travel grant this year. Submit your application to Louise Hellwig by e-mail:

[Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu). If you are awarded a travel grant, the following items need to be submitted after the meeting:

- Photocopies of receipts totaling the amount of the award.
- Trip report summarizing your experience at the meeting and photos of yourself at your poster at the meeting so we can proudly post them on the section website.

## **REMINDER:**

### **Receiving the Chesapeake Chemist**

Hopefully, if you are reading the Chesapeake Chemist this month, you are receiving it via e-mail from us. We went to electronic-only mailings to our MD ACS membership in October 2006.

**Changing your e-mail address? Moving out of the MD ACS area?** E-mail changes can be updated either by:

- E-mailing us at [acsmarylandsection10@gmail.com](mailto:acsmarylandsection10@gmail.com) – give us your member #, full name, and e-mail changes and we can ensure that your records are updated with National ACS.
- **Contacting the National ACS membership division: 800-333-9511 (US only) or [service@acs.org](mailto:service@acs.org)**

To ensure that you receive the Chesapeake Chemist, please add the MD ACS e-mail [acsmarylandsection10@gmail.com](mailto:acsmarylandsection10@gmail.com).

If you are a member who currently doesn't receive the Maryland ACS Chesapeake Chemist but download it from our website, it is possible that National ACS does not have your e-mail address on file. If you want to receive the Chesapeake Chemist via e-mail, please e-mail us at [acsmarylandsection10@gmail.com](mailto:acsmarylandsection10@gmail.com) – give us your member #, full name, and e-mail address and we can ensure that your records are updated with National ACS.

The current edition and previous editions of the Chesapeake Chemist can ALWAYS be obtained via our website: <http://www.maryland.sites.acs.org> – please see the Newsletter Archive link on the left-hand side of the website.



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3815 LANCASTER PIKE, WILMINGTON, DE  
19805

Phone: 302-998-1184, Fax: 302-998-1836

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