

2019 Maryland ACS Student Awards



Dr. Dana Kollmann Clinical Associate Professor, Towson University "I Have an Idea!! Creative Thought and the Forensic Sciences"

> Sunday April 14th, 2019 11:30 am-2:30 pm Doyle Formal Room Notre Dame of Maryland University Baltimore, MD

April 2019



2019 Section Officers:

Chair 2019	Dana Ferraris, McDaniel College, <u>dferraris@mcdaniel.edu</u>
Vice Chair 2018	Pumtiwitt McCarthy, Morgan State University, <u>pumtiwitt.mccarthy@morgan.edu</u>
Chair-Elect (Chair 2020).	Eric C. Cotton, Community College of Baltimore County, <u>cccotton2@ccbcmd.edu</u>
Secretary 2019	Louise Hellwig, Morgan State University, <u>louise.hellwig@morgan.edu</u>
Treasurer 2019	Angela Sherman, Notre Dame of Maryland University, <u>asherman@ndm.edu</u>
Past Chair (2018)	Beatrice Salazar, <u>beatricesalazar1@gmail.com</u>

2019 SECTION COMMITTEE ON NOMINATIONS

COUNCILORS/COMMITTEES

1.	2018-2020 Dana Ferraris	Chair of the Section Program Committee (McDaniel College), <u>dferraris@mcdaniel.edu</u>
2.	2018-2020 Jan Kolakowski	Member of ACS Committee on Economic and professional Affairs, Chair of Section Finance/Investment
		Committee, <u>jek6042@gmail.com</u>
3.	2017-2019 Merle Eiss	Member of ACS Meetings and Expositions Committee, 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), pismith@umbc.edu
5.	2018-2020 Stephanie Watson	Member of the ACS Committee on Committees (ConC) Liaison on
		Nomenclature, Terminology and Symbols (NIST), stephanie.watson@nist.gov

ALTERNATE COUNCILORS/COMMITTEES

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

MEMBERS-at-Large

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

Awards Committee Chairs & Local Section Committees Chairs

Maryland Section on the Web: maryland.sites.acs.org Webmaster: Pumtiwitt McCarthy, <u>Pumtiwitt.McCarthy@morgan.edu</u>

Chesapeake Chemist Editor-in-Chief: Pumtiwitt McCarthy, Pumtiwitt.McCarthy@morgan.edu **Contact us at:** acsmarylandsection10@gmail.com

April 2019

Maryland Section

CHAIR'S MESSAGE DANA FERRARIS

Dear colleagues:

I am looking forward to working with ACS members of the Maryland section and the Executive Committee to make 2019 a productive year by continuing our programming and supporting scientific exchange specifically at this year's Mid-Atlantic Regional Meeting which will be held in our section.

I have set three major goals for our section this year. The first is to maintain our programming at the same level as previous years. We have a track record of several events throughout the year that are well attended and bring members of the section together. I want to ensure that these events run smoothly and are well advertised and attended. These events include the student awards, the US National Chemistry Olympiad, the Remsen Award symposium, Women Chemist's panel, the Braude award and the Maryland Chemist of the year. The second goal is to continue to support the goals from last year of increasing participation from members within our section. This goal goes hand in hand with my last goal which is to increase our presence on social media and engage the younger members of our section.

I look forward to meeting new members and working with the Executive Committee to ensure a successful 2019.

Dana Ferraris

April 2019

2019 MD ACS Student Award Luncheon

Guest Speaker: Dr. Dana Kollmann Clinical Associate Professor, Towson University "I Have an Idea!! Creative Thought and the Forensic Sciences"

When: Sunday April 14th, 2019

11:30 -12:15 registration and viewing of the posters of the student who gave posters at the ACS Orlando Meeting
12:15-12:30 Hors d'oeuvres and seating
12:30-1:15 Luncheon
1:15-1:45 Awards ceremony
1-45-2:30 Lecture and Q&A

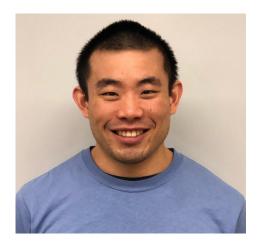
Where: Doyle Formal Room, Notre Dame of Maryland University, Baltimore, MD https://www.ndm.edu/ *Directions:* https://www.ndm.edu/admissions-aid/visit-campus/map-directions-parking *RSVP*: George Farrant, gfarrant@yahoo.com (Please inform of any dietary restrictions) **Cost**: Free to all awardees and awardee guests. \$20 members/\$10 students

Abstract: Just how old are the forensic sciences? We know the uniqueness of fingerprints has been appreciated for some time. Archaeologists have identified "maker's mark" impressions in 6,000-year-old Chinese pottery and thumbprint "signature" impressions in clay seals of ancient legal documents. In the year 1000, Roman attorney Quintilian used a bloody handprint to prove his client was being framed for murder. In 1248, the Chinese director of justice, jail and supervision reported the use of forensic entomology in eliciting a confession when fly larvae were deposited on the presumed murder weapon. In 1784, an Englishman was convicted of murder when document fracture matching was used to associate a a piece of newspaper in the barrel of a pistol to a remnant

recovered his pocket. In 1816, footwear and fabric impressions in mud were used to identify the killer of a young Englishwoman that was drowned and 1889, there commenced research on the uniqueness of land and groove impressions on projectiles. In 1987, DNA profiling was used for the first time in a United States Criminal court, and in 2004, the first DNA exoneration in the United States occurred right here, in Baltimore County, Maryland. Many of the advances in the forensic sciences started with a difficult case and one person who was not afraid to think outside the box.

Biography: Dana Kollmann holds a BS degree in anthropology from Towson University, a MFS from George Washington University, and a MA and a Ph.D. in anthropology from American University. Dana's experience in forensic archaeology and anthropology has been obtained primarily through her training at the Smithsonian Institution. She has worked in museums throughout the United States performing examinations of curated skeletal collections. Her field experience includes mass grave exhumation and victim identification in the former Yugoslavia; grave identification and exhumation of Texas gunfighter Wild Bill Longley; work on the human remains aboard the Hunley Civil War submarine; analysis of Roman plague victims in Croatia; and examination of Mayan remains excavated from tombs in the Petén region of Guatemala. In 2012, Dana was deployed to Haiti with Disaster Mortuary Operational Response Team (DMORT) to assist in the recovery and identification of Americans killed in the earthquake. In 2018, she worked on the Pacific Island of Tarawa recovering and repatriating the bodies of United States Marines that were killed during WWII. Dana has 11 years of crime lab experience, 10 of which was obtained through her work as a Forensic Services Technician with the Baltimore County Police Department where she completed all but a few hours of her training as a footwear and tire track examiner. Dana has authored and co-authored a number of journal articles, technical reports, and continues to work in the field at the request of law enforcement.

Congratulations to the 2019 Student Awardees!



Emmanuel Ho Anne Arundel Community College



Nathaniel Espey Community College of Baltimore County



Delight Nweneka Frederick County Community College April 2019



Himsheela Karki Baltimore City Community College



Malia Vester Coppin State University



Karen Nga Tana Goucher College Volume 76, Number 1



Juliana Pitzer Harford Community College



Harrison Mayo Howard Community College



Sabrina Nance Loyola University



Anastazia Jablunovsky Hood College



Julia Chang Johns Hopkins University



Kristopher Mason McDaniel College Volume 76, Number 1

April 2019



Pierce Perkins Morgan State University



Victoria Oji Notre Dame of Maryland University



Leobardo Rodriguez Segura Mount Saint Mary's University



Lindsey Power Saint Mary's College of Maryland



Justin Kim Towson University



Sehlah Butt Stevenson University

April 2019



David Sachs University of Maryland Baltimore County



Grace Lane United States Naval Academy



Collin Vincent Washington College



M A R M • 2 0 1 9

Advanced Registration is Open Until May 3rd! Register now at <u>www.marm2019.org</u>!

Report on the April 3, 2019 Council Meeting at the 257th ACS National Meeting in Orlando, Florida

The meeting began at 8:02 AM. Carol A. Duane and H.N. Cheng were selected as candidates for 2020 President-Elect. These two candidates, along with any others selected via petitions, will stand for election in the 2019 Fall National Election. By internet ballot, Councilors from District II selected Christina C. Bodurow and Dawn Mason as candidates for District II Director. Likewise, Rigoberto Hernandez and Lisa Houston were selected as candidates for District IV Director by Councilors from their district. Candidates selected for 2020-2022 Director-at-Large were: Harmon B. Abrahamson, G. Bryan Balazs, D. Richard Cobb, and Dorothy Phillips. The election of two Directors-at-Large from among these four candidates, and any selected via petition, will be conducted in the fall.

The Council approved the Petition to Streamline the ACS Governing Documents [Constitution Articles I-XIX, Bylaws I-XIV, and Standing Rules I-IX], which will reorganize the fundamental governing documents of the Society: the Constitution and Bylaws, and create a third document: Standing Rules. These three documents will function as a hierarchy. The Constitution should define; the Bylaws should authorize; and the Standing Rules should operationalize.

Additionally, an Amendment was voted upon, and passed by recorded vote. Specifically, the amendment stated that language proposed as Standing Rule II, Sections 2a, 2b, and 2g be moved to the Bylaws as new Sections 2a, 2b, and 2c of proposed Bylaw III with appropriate renumbering of the other sections of Bylaw III and Standing Rule II.

The Petition will become effective if and when the proposed changes to the Constitution are approved by the Membership of the Society, and if and when the Board of Directors approves the Petition. Because the changes to the ACS Governing Documents are substantial, the Council authorized the ACS Secretary and General Counsel and the Committee on Constitution & Bylaws to correct minor technical mistakes in the Petition.

The Council voted on the recommendation of the Committee on Budget and Finance to set the member dues for 2020 at the 2019 rate of \$175. The Council voted to extend the provision of the international dues discount test based on World Bank country income levels for an additional three years (August 2019 – August 2022).

On the recommendation of the Committee on International Activities, the Council approved the establishment of the ACS Pakistan International Chemical Sciences Chapter, subject to confirmation by the Board of Directors.

In 2018, ACS generated a net from operations of \$41.1 million, which was \$13.3 million higher than 2017. Total revenues were \$571.6 million, increasing 6.4% - or \$34.2 million - over 2017. Expenses ended the year at \$530.5 million, which was \$20.8 million or 4.1% higher than the prior year. These results were attributable to

strong performance from the Society's Information Service units (CAS and ACS Publications) and a continued emphasis on expense management across the ACS.

The ACS ended 2018 with 151,012 members, a net membership growth of onetenth-of-one-percent. This is the first membership growth ACS has recorded in the better part of a decade. Of the 25,000 new members who joined in 2018, about 20% were incentivized by market testing initiatives. Without these new members, ACS would have seen continued declines.

As of Tuesday, April 2 the Orlando Meeting attendance was as follows:

Attendees	7,887
Students	6,019
Exhibitors	869
Expo only	404
Guests	426
Total	15,605

The meeting adjourned at noon.

Respectfully submitted.

Jan Kolakowski Councilor

Recent Events

Congratulations to the 2018 Maryland Chemist of the Year! Dr. Jared DeCoste Edgewood Chemical Biological Center

"Interdisciplinary Approaches to Metal-Organic Framework Design: A Scientific Playground & Collaborative Opportunity" Wednesday, February 6, 2019 Mountain Branch Golf Course Grille & Pub



Photos courtesy of Jared DeCoste and Beatrice Salazar

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. April 2019 Volume 76, Number 1



WHAT THE ACS HAS MEANT TO ME OVER THE YEARS



- A platform for presenting research
- A networking platform
- A platform to give back
- A resource of information
- Promotes and advocates for scientists
- Promoting the future of science through STEM

Dr. DeCoste in his own words about the value ACS holds

2019 CHEMAGINATION COMPETITION

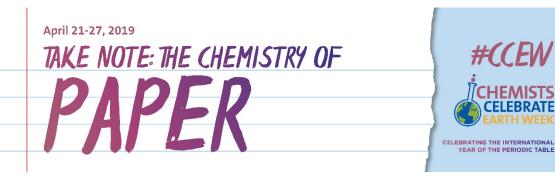
We are pleased to announce that the Maryland Section of the American Chemical Society will be sponsoring a 2019 Chemagination Competition. For this event, high school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a 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 (gfarrant@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.

April 2019



CHEMISTRY IN THE LIBRARY

Ages 7 & up (7-8 year olds must be accompanied by an adult); 60 min. Registration required.

Celebrate Earth Week with a chemist from the Army Research Laboratory and the American Chemical Society. Participate in hands-on experiments exploring the chemistry of paper.

Howard County Library System East Columbia Branch	Sat 2	3 Mar	2 pm
Howard County Library System Glenwood Branch	Sat 3	0 Mar 1	1 am
Carroll County Library System, Eldersburg Branch	Sat O	6 Apr	1pm
Howard County Library System Savage Branch	Sat 1	.3 Apr	2 pm
Howard County Library System Central Branch	Sat 2	0 Apr	2 pm
Howard County Library System Miller Branch	Sat 2	7 Apr	2 pm
Howard County Library System Elkridge Branch	Sat 0	4 May	2 pm
Enoch Pratt Library System, Waverly Branch	Sat 1	.1 May 1	.1 am
Howard County Library System Elkridge Branch	Wed 1	5 May	7 pm
Enoch Pratt Library System Govans Branch	Sat 1	13 Jul	2pm

https://hclibrary.org/classes-events/

https://ccpl.librarymarket.com/events/take-note-chemistry-paper

http://calendar.prattlibrary.org/

April 2019

An Invitation to Celebrate Earth Day With ACS Maryland Section

April 22, 2019

Coordinator Beatrice Salazar

The Maryland Section of the American Chemical Society will have a tour of The Montebello Water Filtration Plant-I in Baltimore

The tour is designed for high school students, the scientific community and university/college students to learn the chemistry involved in the treatment and purification of surface water to produce safe drinking water. The tour includes the history of the plant which was built in 1915, why it was built and how public health was improved after cleaning water for consumption. An explanation of the water sources in Maryland and the clean water distribution networks. A visit of the facilities showing the different steps in the process of water treatment with emphasis on the chemicals added to raw water and why. Instructional material will be given to students and their chemistry teachers involving the chemical reactions that take place as chemicals are added to water for treatment. This year, we will emphasize the mathematics requirements involved in such processes. All high schools are invited please make a reservation.



http://www.acsmarylandevents2016.webs.com/

NEW STEM PROJECT

In 2018 a new project began involving the Baltimore Montebello Water Filtration Plant Tour. The content of the tour became highly appreciated by the scientific community.

It is now available for college and university students and professors. As a result of the excellent chemistry application in the real world, a series of scientific posters have been designed and prepared to enhance STEM education. These posters will provide a valuable resource for STEM teachers. The posters are presented at ACS National Meetings every year.

2018 Poster: MWFP-I: Chemistry Contribution to Public Health, presented at ACS National Meeting in New Orleans, LA (NOLA) March 2018.

2019 Poster: MWFP-I: Engaging Students in Physical Chemistry, A STEM Approach. It will be presented at ACS National Meeting, San Diego, CA. August 25-29, 2019.

In addition, this STEM resource is available in an Engineering APP to learn about Engineering projects nationwide :

http//www.repicture.com

U.S. National Chemistry Olympiad USNCO-2019

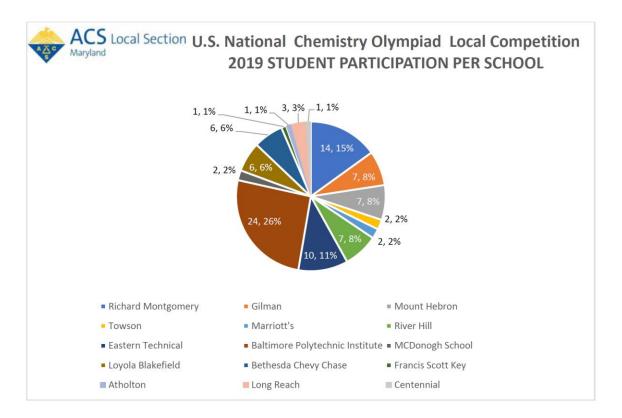
Coordinator: <u>Beatrice Salazar</u>

Welcome to the 2019 Chemistry Olympiad. We are very enthusiastic about this year's competition at the



Community College of Baltimore County, CCBC. The Maryland Local competition is now closed with almost 100 participants. These students will take the USNCO local exam during the month of March competing for the coveted few positions offered by the ACS Maryland Local Section to compete with more than 1,300 participants nationwide. The National exam will take place April 27, 2019. For more information use the URL: http://www.beatricesalazarusncocoordinator.webs.com

CONGRATULATIONS TO CHEMISTRY TEACHERS AND STUDENTS YOU ARE MAKING YOUR SCHOOL AND MARYLAND STATE PROUD!



For more information, contact Beatrice Salazar Immediate Past Chair ACS Maryland U.S. National Chemistry Olympiad Coordinator <u>mailto:beatricesalazar1@gmail.com</u>



U.S. NATIONAL CHEMISTRY OLYMPIAD

LOCAL STUDENTS WIN CHANCE TO QUALIFY FOR INTERNATIONAL CHEMISTRY OLYMPIAD, IChO

The Maryland Section of the American Chemical Society has announced the names of 15 outstanding high school chemistry students that are moving forward to the second part of the competition. These students will take a national exam that may qualify them to become members of the U.S. National Chemistry Olympiad Team that will compete in the 51st IChO competition, July 21-30, 2019 in Paris, France.

Students	High Schools	Teachers
Abhinav Modugula	Long Reach High School	Chariz Penalber-Johnstone
Alan Tong	Richard Montgomery HS	Katherine Lin
Anna Ju	River Hill High School	Kelly Wester
Justin Bai	Gilman High School	Alvaro Salcedo
Katherine Haas	Bethesda Chevy Chase HS	Nurgul K. Balimtas
Katherine Zhao	Richard Montgomery HS	Katherine Lin
Kathleen Monahan	Bethesda Chevy Chase HS	Nurgul K. Balimtas
Matthew Jacoby	Mount Hebron High School	Mary Ann Sankey
Mohammad Sheikhattari	Mount Hebron High School	Mary Ann Sankey
Shuming Alan Mao	Towson High School	Ronald Schneider
Thomas Luo	Centennial High School	Robert Astri
Tomas Youjae Germanas	Centennial High School	Robert Astri
Vedaant Shah	River Hill High School	Kelly Wester
Wilson Robert Turner	Towson High School	Ronald Schneider
Zhuoyuan Li	Marriott's Ridge High School	Katherine Rush

The IChO involves a series of theoretical exams, laboratory exercises, and other activities aimed at identifying the best chemistry students from participating nations from around the world. The U.S. has participated in this event since 1984. Approximately 300 students represent more than 75 countries each year at IChO. All members of the U.S. Team won gold medals in Prague, Czech Republic last year. This was another great performance in the history of the U.S. Team!

Our 15 local nominees are among over 1,200 nationwide that will take a national qualifying exam April 27, 2019. Twenty finalists will be identified and will undergo intensive training in June at the US Force Academy in Colorado Springs, Colorado. The top four students will be chosen to represent U.S. in the 51st IChO competition.

The American Chemical Society was founded and chartered by Congress in 1876. It is a nonprofit scientific and educational organization dedicated to the advancement of chemistry in the public interest, serving about 160,000 members. The Maryland Section is one of 185 local sections across the nation serving more than 2,000 members.



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/seniorchemists.html

Information on how to Start a <u>New Senior Committee</u> at your Local Section:

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

Announcements

BRAUDE AWARD: Call for Nominations

The George L. Braude Award, presented at the October meeting, was established by the Maryland Section in 2003. His wife, Monique Braude, created this annual awardin her husband's memory to support a professor conducting outstanding research involving students at a college or university, particularly in the Maryland section. The recipient receives a plaque describing his/her contributions and a monetary award of \$3500. to help support further student research.

The deadline for nominations is May 15; the awardee will be announced in June. Nominees must a member of the ACS, and underrepresented candidates including women are encouraged. Submit a list or description of the research accomplishments of the nominee, as well as an indication of the number of students involved in that research, to Louise Hellwig via email: https://www.louise.hellwig@morgan.edu.

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:

April 2019

- E-mailing us at <u>acsmarylandsection10@gmail.com</u> 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 <u>service@acs.org</u>

To ensure that you receive the Chesapeake Chemist, please add the MD ACS e-mail <u>acsmarylandsection10@gmail.com</u>.

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 <u>acsmarylandsection10@gmail.com</u> – 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: <u>http://www.maryland.sites.acs.org</u> – please see the Newsletter Archive link on the left-hand side of the website.



The Chesapeake Chemist is e-published monthly September through June by the Maryland Section of the American Chemical Society. Send submissions to the editor in electronic format. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of the authors. The editor is not responsible for all unsigned material.