

# THE 2023 MARYLAND CHEMIST

## AWARDEE DAVID P. GOLDBERG



JHU

CHEMISTRY  
DEPARTMENT

*Congratulations!*



Professor in the Department of Chemistry,  
Johns Hopkins University. P.5

February 8, 2024



Ira Remsen Award

P. 6

Dazzling Chemistry

P.8

George L. Braude Award

P. 9

**Maryland Local Section  
Newsletter**

Editor-in-chief: [Beatrice Salazar](#)

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*From the Editor's Desk...*

It is a pleasure to announce the 2023 Maryland Chemist of the Year Award winner, Dr. David P. Goldberg, Professor of Chemistry at Johns Hopkins University. Congratulations! Professor Goldberg's award lecture and celebration reception will take place on February 8, 2024. See p. 5 for more details.

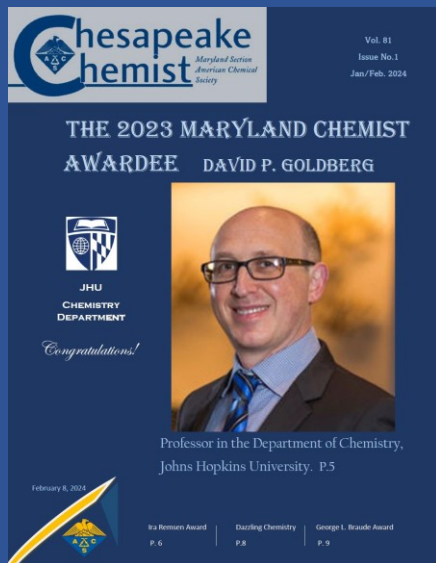
The Latin translation of *Lux Et Veritas*, "Light and Truth" in the Yale University logo called my attention as I was preparing the report on the 2022 Ira Remsen awardee, Professor Scott Miller, from Yale university. His award lecture took place last October 2023. The report on p. 6 includes great photos of some attendees and a commentary on Professor Miller's enlightening lecture "Asymmetric Catalysis".

The 2023 George L. Braude Lecture report is on p. 9. Professor Mark R. Marten's lecture had a unique and familiar tone that was well attended by colleagues, students, family and friends.

Olivia H. Wilkins interviewed Anurag Sodhi, a promising high school student that made history for the Maryland local section. For three consecutive years he participated in the U.S. National Chemistry Olympiad, USNCO where he achieved high marks. Anurag was then chosen to participate in the international competition, IChO in 2023 where he along with the rest of the US team won a gold medal. Anurag has been accepted at MIT where he plans to major in Chemistry. The interview, "Journey to IChO" is an entertaining article written by one of our newest local section members (p. 10).

We also have preliminary information on three future events. The WCC lecture p.15, Student Awards Lecture, p.16 and student travel grants, p.17. We hope you join us during these events.

*Beatrice Salazar*



**The Chesapeake Chemist**

a magazine and newsletter for chemists!

Contact Editor: [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

Contact ACS Maryland Section management at [acsmarylandsection10@gmail.com](mailto:acsmarylandsection10@gmail.com)

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Be one of us! Write articles for the Chesapeake Chemist. Send announcement of your projects and activities. Share your chemistry life with your colleagues.

## 2024 MARYLAND LOCAL SECTION NEW LEADERSHIP

*Congratulations!*

*Jiangnan Peng*

Chair

*Beatrice Salazar*

Vice Chair

*Louise Hellwig*

Secretary

*Eric Cotton*

Treasurer

*Lee Lefkowitz*

Auditor - Treasurer

*Jan Kolakowski*

*Jillian Malbrough*

*Kelly Elkins*

*Stephanie Watson*

Counselors

*Noelle Neff*

*Ayse Gul Yavuz-Cular\**

*Olivia Harper-Wilkins\**

*Nicole Carbonaro\**

*Rose Pesce-Rodriguez\**

*Sara Narayan\**

*Sunil Knonath*

Alternate Councilors and Members at Large with \*

*Kelly Elkins*

Immediate Past Chair

# Jiangnan Peng, Ph.D.

The 2024 ACS Maryland Section Chair want to ...



**Strengthen** the local section members'

Collaboration,

**Continue** the awards, programming

and events from previous years and his work with high school students in Project SEED.

Dr. Jiangnan Peng

Assistant Professor, Chemistry

Office: Dixon Research Center 012

Phone: (443) 885-3955

[Jiangnan.Peng@morgan.edu](mailto:Jiangnan.Peng@morgan.edu)

## Research Interests:

**New drug discovery | Natural products | Quality analysis | Botanical drugs | Medicinal plants | Dietary supplements**

Dr. J. Peng's research interests focus on the identification and analysis of bioactive components from natural resources, including plants, fungi, microbes, and marine invertebrates. His research program explores natural products in three major fields: (1) Discovery of new drug leads from natural resources for the treatment of human diseases such as cancer and infectious diseases, using bioassay-guided isolation, structure elucidation, and chemical optimization; (2) Investigation of the scientific basis of dietary supplements and herb medicines, through studying the bioactive components and pharmacology, and establishing comprehensive analytical methods for better control the quality of them; (3) Development of new botanical drugs.

<https://www.morgan.edu/chemistry/faculty-and-staff/jiangnan-peng>

**Attend the first Executive Meeting of 2024 in February**

**Contact the chairperson to discuss your interest in volunteering for the**

**ACS Maryland Section**

An invitation  
To celebrate the recognition of the  
**2023 Maryland Chemist of the Year**

# David P. Goldberg

Professor in the Department of Chemistry, Johns Hopkins University  
“For his outstanding contributions to  
Inorganic Chemistry”

His research focuses on employing synthetic inorganic chemistry to answer  
fundamental questions regarding structure, spectroscopy, and reactivity  
pertinent to bioinorganic chemistry.



**Award Lecture:**

## **Heme and Nonheme Transition Metal Centers: Synthetic Biomimetic Complexes for Small Molecule Activation, Mechanistic Insights, and Catalysis**

Small molecule activation by transition metal centers is at the heart of chemistry and biology. Some of the most important and difficult challenges facing humanity include disease, energy transduction and storage, and environmental sustainability, and in all of these areas small molecules (e.g. O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub>, NO, H<sub>2</sub>S, CH<sub>4</sub>) and their redox transformations mediated by transition metal centers play an essential role. Nature employs a remarkable class of biomolecules known as metalloenzymes to carry out these transformations. With inspiration from nature, our laboratory designs and synthesizes novel transition metal complexes as structural, spectroscopic, and functional analogs of the metal-containing active sites found in both heme and nonheme metalloenzymes. This talk will describe our efforts in the synthesis of new organic ligands and their related heme and nonheme transition metal complexes for the activation of small molecules such as dioxygen (O<sub>2</sub>) and nitric oxide (NO). Metal ions of biological significance and environmental compatibility will be the focus, including iron (Fe) and manganese (Mn). The isolation, trapping, and spectroscopic characterization of rare, metastable analogs of mechanistic intermediates will be highlighted, including high-valent metal-oxo and metal-hydroxo species, as well as metal-dioxygen and metal-nitrosyl adducts. The reactivity and mechanism of these complexes in fundamental processes such as proton-coupled electron-transfer (PCET), oxygen-atom-transfer (OAT), and metal-ligand radical transfer reactions will be discussed, together with kinetic, thermodynamic, and computational analyses.

**Thursday, February 8, 2024**  
**5:30 P.M. Reception, 6:00 P.M. Ceremony**

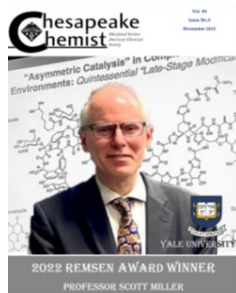
The Great Hall in Levering Hall  
3400 N Charles Street, Baltimore MD 21218  
Parking is available see [Campus map](#)

# REPORT ON AWARD EVENTS

The 2022 [Remsen Award](#) P.6

The 2023 [Braude Award](#) P.9

The 2023 [Maryland Chemist of the Year Award](#) P.5



<https://acsmaryland.org/remsen-award/>

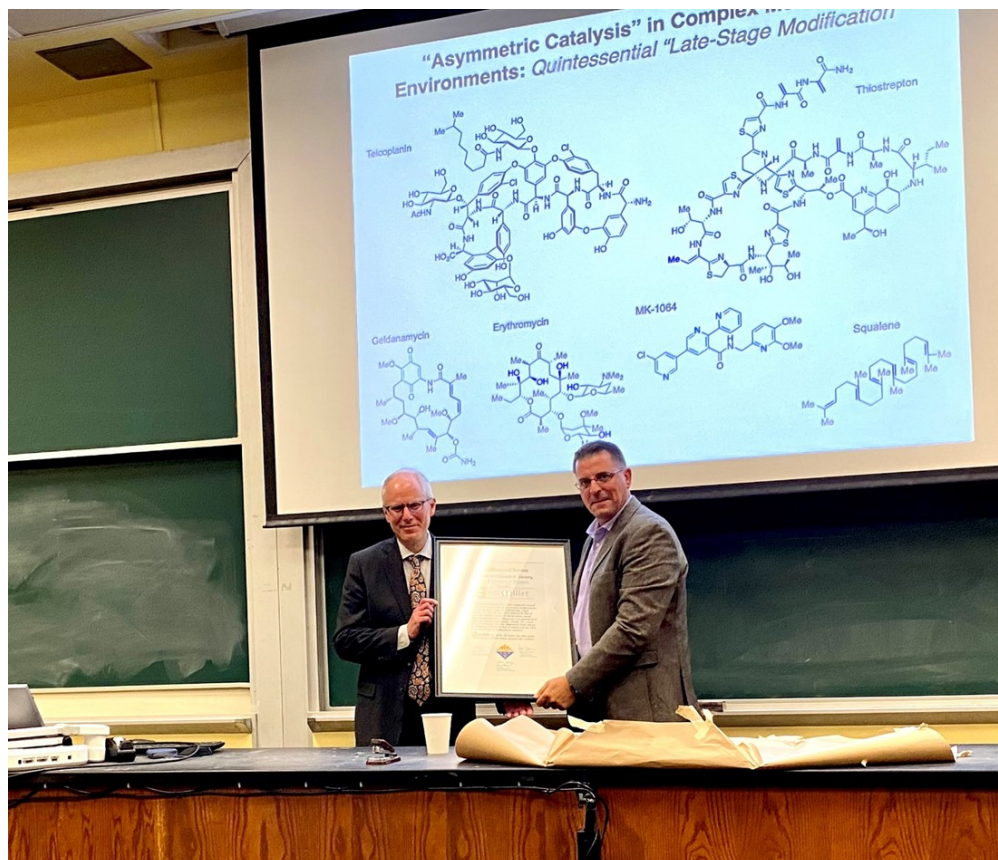
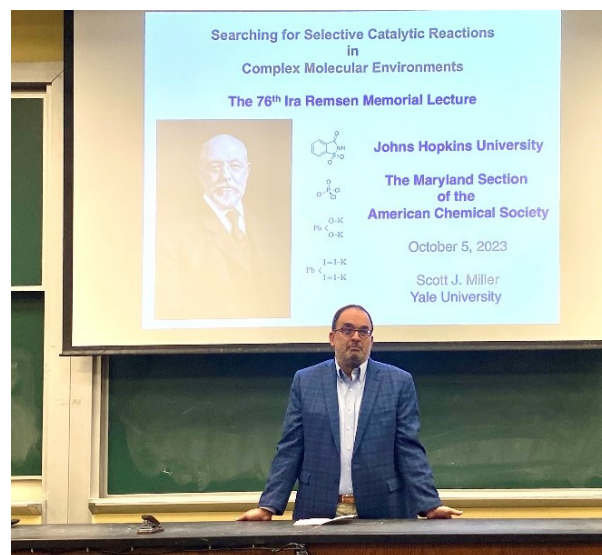
## *Congratulations!*

To Professor Scott Miller from Yale University. He received a Remsen Award plaque describing his numerous contributions to Chemistry, and a monetary Honorarium from the American Chemical Society Maryland Local Section and Johns Hopkins University. The collaboration of these two institutions has been a great opportunity for students to meet distinguished scientists and attend their lectures. Students met with Professor Miller the day before the lecture and had the opportunity to get to know him in person.

Dana Ferraris, Ph.D. from McDaniel College (Chair of the Remsen Award Committee at ACS Maryland Section) honors Professor Miller with the award.

Professors Miller's plaque says *"In acknowledgement of his wide-ranging and seminal contributions to the discovery of new chemical transformations that enable the rapid synthesis of stereochemically complex structures. His work has also greatly advanced the field of asymmetric catalysis with peptides and site-selective natural product functionalizations, enabling access to an expansive set of biologically inspired natural products analogs."*

# THE IRA REMSEN AWARD LECTURE



*His creative design of both peptide-based and atropisomeric-based catalysts has significantly impacted the field of catalysis and has led to broad applications in enantioselective synthesis".* His lecture was about these catalysts that have so much captivated the enthusiasm of Dr. Miller and his students.

Professor Miller displayed pictures of his large and enthusiastic lab group. He mentioned many stories of his students' interests in pursuing specific research. In every story we saw Dr. Miller's enjoyment in his research, it was inspiring. His enthusiasm is so contagious, we could see why he has many collaborators and chemical companies interested in his research.

Professor John Toscano introduced the Remsen Award with a short history of the life of IRA Remsen, the second JHU president and an accomplished chemist. Professor Toscano is a great storyteller; we enjoyed his introduction.

Dr. Miller has an amazing list of accomplishments as well as his scientific relationships. See his CV and publications in the following links. <https://chem.yale.edu/faculty/scott-miller> - [Website and Research interest](#).

To summarize Professor Miller's lecture, we asked a biochemist that attended his lecture to give us his opinion on the lecture. You can read his article on page 10.

The lecture was engaging to a large audience of more than 200 people. There were many questions and "no one was worried about the time". ■



**Professor Scott Miller**, Irénée du Pont Professor of Chemistry, Yale University.



Photos Courtesy of  
Beatrice Salazar,  
ACS Maryland  
Section

Professor David Yarcony, Ph.D. [Maryland Chemist of the Year 2020](#), B. Salazar, M.S. Chair-Elect 2023/ACS Councilor, ACS Maryland Section, Camilo Rojas, Former Associate Professor Drug Discovery, JHU, Lee Lefkowitz, Ph.D. ACS Maryland Section Treasurer, Dana Ferraris, Ph.D. McDaniel College, Professor John Toscano, Ph.D. Chairman Chemistry Department, JHU.

ARTICLE [By Camilo. Rojas, Ph.D.](#)

# Dazzling Chemistry

The final stage in the biosynthesis of cholesterol starts with the introduction of an epoxide into squalene in a reaction catalyzed by squalene epoxidase. Squalene has 6 double bonds and yet, squalene epoxidase, in a remarkable show of stereospecificity, only catalyzes the epoxidation at the double bond in the 2,3 position of squalene. What is the secret? Is it possible to introduce another oxygen containing-3-member ring at another one of the double bonds of squalene with the elegance of the squalene epoxidase-catalyzed reaction?

Squalene epoxidase took millions of years to evolve its remarkable catalytic ability for the purpose of cholesterol biosynthesis. While we are aware of the dangers of high cholesterol levels and the need to control them, it is also true cholesterol plays crucial physiological roles, thus the need for its biosynthesis. On the other hand, why would we be interested in carrying out epoxidation at another one of the double bonds of squalene?

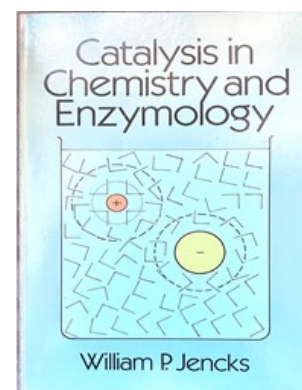
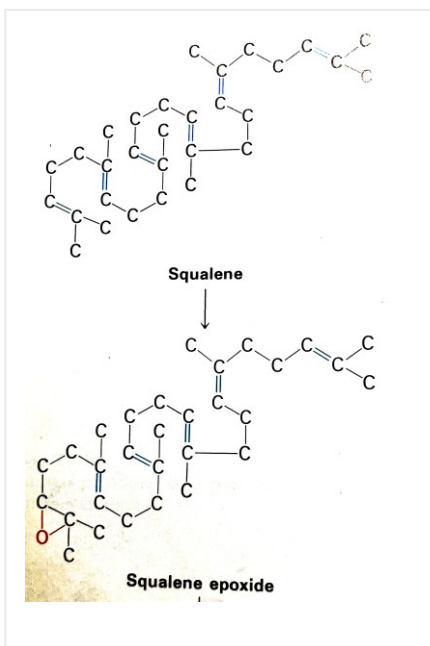
Questions like these are the driving force of Professor Scott Miller's research, a professor of chemistry at Yale University and the winner of the 2022 Ramsen Award. During a lecture commemorating his award on October 5, 2023, Dr Miller shared with an audience at Johns Hopkins University the progress he and his collaborators have made in the daunting task of selectively transforming natural products. Early in the presentation I was at the edge of my seat with the shock of recognition when Dr Miller showed in one of his slides the cover of

William Jencks' classic "**Catalysis in Chemistry and Enzymology**" as a book that had an important influence in helping him resolve his daunting tasks. Jencks' book, a scholarly treatise on the basic principles of catalysis, was a book I studied extensively in graduate school as an enzymologist wannabe.

Understanding the principles of catalysis and using them in organic syntheses that selectively transform natural products is taking the field to new heights. Specifically, site selective catalysis, selective phosphorylation of sugars, oxidation catalysis, site selective carbonyl insertion (my personal favorite) and deoxygenation catalysis just to name a few. For those of us with an interest in exploring some of these intellectually dazzling chemistry further, Dr. Miller had

references to scientific literature that felt like gentle provocations. But all this work is not just to show organic chemists can be as stereospecific as enzymes; the work is bringing out new understanding of catalysis of previously unexplored reactions of natural products. Moreover, some of this work has called the attention of pharmaceutical companies with a clear eye on the development of new drugs.

Interestingly, collaborations with industry have helped reshape the focus of some of the earlier questions. It was a piquant presentation that brought the audience's attention to great science and its potential for practical applications. ■





# THE GEORGE L. BRAUDE AWARD LECTURE

*There's fungus among us!* by 2023 Award Recipient,  
Mark R. Marten at UMBC, October 23, 2023



Photo courtesy of L. Hellwig: In the photo Kelly Elkins, Ph.D. Section Chair-2023, Louise Hellwig, Ph.D. Coordinator of the Braude award program and Professor [Mark R. Marten](#), Braude Award Recipient, UMBC.

## Braude Award Meeting

Dr. Mark Marten, Chair of the Department of Chemical, Biochemical. & Environmental Engineering at the University of Maryland-Baltimore County is the 2023 winner of the Braude Award. He was presented with a plaque and the monetary award on October 23 (Mole Day!), at Matthew's 1600 in Catonsville, MD. Dr. Marten's presentation "There's a fungus among us!" described the Marten Lab's investigation of filamentous fungi and how to increase their productivity. Dr. Marten framed the research in terms of the students who worked on the project, some of whom were attending the meeting.

This Award is endowed by the family of Dr. George Braude (1918 – 2002). At one point in his career, he was employed at W.R. Grace. We were pleased that Dr. Richard Bush, one of Dr. Braude's former coworkers, attended the meeting and shared that Braude was an avid skier. It enhanced our understanding of the man. Commentary by Louise Hellwig, Ph.D.

# Maryland high school student's journey to International Chemistry Olympiad gold

By Olivia Harper Wilkins

Anurag Sodhi's journey to becoming a gold medalist at the 55<sup>th</sup> International Chemistry Olympiad (IChO) in Switzerland was a long one. Anurag, a rising 12<sup>th</sup> grader at Centennial High School in Howard County, first became interested in chemistry as a middle schooler because "it was interesting and exciting."<sup>1</sup> But since chemistry isn't part of the typical middle school science curriculum, Anurag turned to Khan Academy. He also participated in (and won) the 2019 national "You Be The Chemist Challenge".<sup>2</sup>

As Anurag prepared to start his first year at Centennial High School, his mother recognized that he was driven to continue learning about chemistry and science more broadly. She learned about Chemistry Olympiad by searching the web and encouraged her son to join the program.<sup>1</sup>

Anurag became involved in the US National Chemistry Olympiad (USNCO) in 2020 as a first-year high school student already equipped with chemistry knowledge at the secondary school level.

He was motivated by friend and then-senior high school student Tomas Germanas (now a third-year at the University of Chicago) who had done well in the USNCO exams.

That first year, Anurag learned a lot more about both chemistry and the Olympiad program. "It was challenging," he said, referring to the very low score he received on his first practice exam. Anurag was determined to do better the next time, and he did.

Over the next few years, Anurag improved, and each year, he made it a bit further in the USNCO program.<sup>3</sup> In his second year, Anurag used his previous Olympiad experience to better balance his schoolwork with preparing for the USNCO exam in March 2022.<sup>1</sup> His

chemistry teacher, Mr. Robert Astri, also helped him prepare. Anurag felt much more confident in his performance than he had the year before.

The day the exam results were announced, a friend from Montgomery County, MD, got the call that they had made it into the Chemistry Camp reserved for the top 20 scorers on the USNCO exam. Anurag waited eagerly, hoping his phone would ring next. But the call never came. As the hours dragged on, Anurag accepted his fate: he hadn't made it into Chemistry Camp. Then, about five hours after his friend had learned of their own triumph, Anurag got an email from the Maryland Section's Beatrice Salazar, USNCO coordinator for



**Chemistry Camp participants at the University of Maryland in June 2023.** Anurag is in the second row from the bottom, just left of the center railing. *Photo by Joe Houck (ACS).*



**Team USA, with their local guide in the back, after arriving at IChO in Zurich.** Anurag is in the middle wearing a red shirt. *Photo by Joe Houck (ACS).*

Maryland. She told Anurag that the USNCO officials had been trying to get ahold of him but had the wrong phone number on file. He had, in fact, moved on to Chemistry Camp.

Chemistry camp, he said, was intense. For two weeks in June, the top 20 scorers on the USNCO exam participate in a series of morning lectures and afternoon labs with exams every other day. After the three written exams and three laboratory exams are scored, the top four participants are named as members of the American IChO delegation. Anurag didn't make the American team in 2022, but he was determined to come back for the 2022-2023 schoolyear.

In July 2023, after years of preparation and moving on from the USNCO exam to

Chemistry Camp a second time, Anurag headed to Switzerland as part of the American delegation to IChO. About 90 countries, each with four delegates, participated in the contest held at ETH Zurich. The IChO contest comprised two parts: a five-hour written exam and a five-hour lab. Anurag's gold medal means that his score fell within the top 10% of the competition. His other teammates also brought home medals, giving the American team a total of two gold and two silver.

When he wasn't competing during the 10-day trip, Anurag took the time to enjoy Switzerland. "It's an extraordinary country. Everything is so scenic and beautiful." Avoiding additional studying wasn't difficult since all electronics

were taken away from delegates at the start of the trip to prevent cheating. Instead, Anurag could appreciate how "organized, efficient, and clean" Switzerland was. He was especially struck by how clean and good tasting the water was, even from decorative fountains. You could safely fill your water bottle from public fountains, including those a mere 100 yards from a major chemical plant.

Besides touring Switzerland, Anurag enjoyed connecting with other chemistry enthusiasts. For example, he had met another Olympian online who had also made their national team, and the two were able to meet in person in Switzerland. Referring to his favorite part about Chemistry Olympiad, he smiled, "The people that I've been able to meet. I wasn't prepared for the national and international community of people doing chemistry."

Anurag attributed his success and growth in the program to the people who helped him along the way. "I was surrounded by people willing to teach and willing to help," he said. Among those who helped Anurag improve his Chemistry Olympiad performance was Dr.



**Delegates from the victorious Team USA posing with their medals and the American flag following the 55<sup>th</sup> IChO.**  
Anurag is on the left. Photo by Lily Raines (ACS).

Jianping Huang, who Anurag described as one of the best teachers he's ever had. Dr. Huang teaches preparatory classes for Chemistry Olympiad. He also acknowledged his parents, who encouraged him to keep going, especially on the most challenging days of preparing.

When asked what advice he has for other students interested in Chemistry Olympiad, Anurag didn't hesitate. "Stick with it. It's different, but that doesn't mean it's impossible." He also realized that "This is something that many people can do, especially if you have enough passion and will." But he also acknowledged

that he had so much support from his family and others.

Now that Anurag has brought home gold, his Chemistry Olympiad journey is over. He says he'd like to try to be a normal high schooler this year and enjoy time with friends, including at events like homecoming which he's skipped in the past to focus on Olympiad. Anurag is also going to focus on an internship at the University of Maryland with Dr. Pratyush Tiwary, with whom he is learning about artificial chemical intelligence. 🧪

**References.** <sup>1</sup>Interview with Anurag Sodhi, 28 July 2023. <sup>2</sup>Chemical Education Foundation. "Anurag Sodhi Wins 2019 National *You Be*

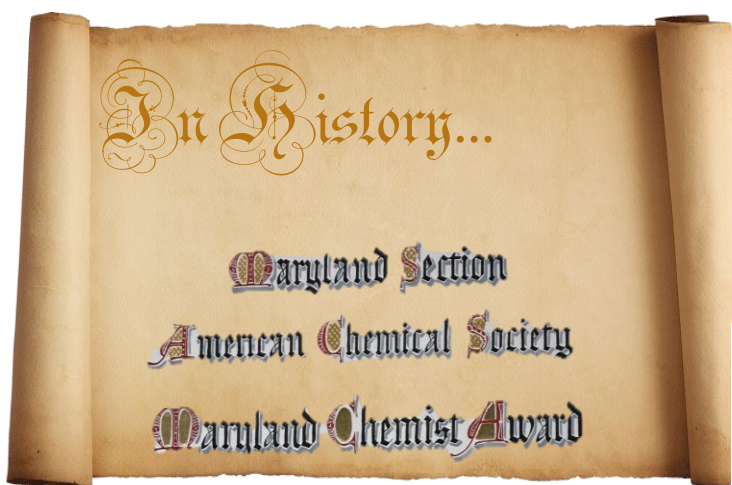
*The Chemist Challenge.*", 2019, <https://www.chemed.org/whats-new/2019-national-challenge-champion-announced/> (accessed 2023-08-02). <sup>3</sup>Salazar, Beatrice. "Maryland will be represented in the International Chemistry Olympiad!" *Chesapeake Chemist*, 2023, 80(6), 4-8.

**Olivia Harper Wilkins, Ph.D.**, is a NASA Postdoctoral Program (NPP) Fellow at NASA Goddard Space Flight Center. She is also a Maryland Section Member-at-Large, Chair of the Maryland Younger Chemists Committee (YCC), and a National YCC Affiliate. You can connect with her on Twitter and Instagram at @LivWithoutLimit. She can also be reached by email at [olivia.h.wilkins@nasa.gov](mailto:olivia.h.wilkins@nasa.gov).

# USNCO – 2024 Maryland Section U.S. Chemistry Olympiad

The USNCO-2024 has completed the Participants' registration process. This year all participants needed to register directly with ACS. The schedule for exams and other activities of USNCO are listed in the ACS Maryland Section Website: <https://acsmaryland.org>.

The local section exam will be given during the month of March by participant teachers. If any student has a problem with this schedule, he/she needs to directly contact the ACS Maryland USNCO Coordinator Beatrice Salazar at [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com) for indication on how to proceed and where to take the exam.



**When did the award begin?**

It is only speculation because there are no records of when this award was established; It is believed that it began in 1962 but the idea was born when the Maryland Section of the American Chemical Society was created. In the meantime, more research will be done on this subject to have a complete and accurate list of the awardees since the creation of the award.

The Maryland Chemist of the year is one of the Maryland Section most distinguish award because it is at the State Level. What would be next? Could this award be at the national level? The Maryland Section has a great list of awardees since 1975 and it will be a matter of time that we extend this award to a national level by nominating a scientist to the American Chemical Society for a National Award. The oldest award recipient on record... 1968

## Maryland Chemist of the Year Recipients in the last decade:

- 2023** Dr. David P. Goldberg, Johns Hopkins University
- 2022** Dr. Cheng Gong, University of Maryland
- 2021** Takashi Tsukamoto, Johns Hopkins University
- 2020** David R. Yarkony, Johns Hopkins University
- 2019** Andrew Coop, University of Maryland School of Pharmacy
- 2018** Jared DeCoste, US Army Research



Dr. George L. Braude (left) being presented with 1968 Maryland Chemist Award by Section Chairman Timothy F. Parr (right). In the center is George Steinberg, Chairman of the Awards Committee.

# FUTURE EVENTS

## PROGRAMS

### ▶ STUDENT AWARDS

The Student Award Program coordinator, Sara Narayan, Ph.D. has announced the name of the speaker for the award lecture.

Mr. Jason Price read his biography and other details of the awards on page 16.

The ceremony will take place at Notre Dame of Maryland University on April 28, 2024, at noon.

Contact: [snarayan5@yahoo.com](mailto:snarayan5@yahoo.com)

### ▶ STUDENT TRAVEL AWARDS

The student travel awards application is closed for the ACS National Spring Meeting in New Orleans.

The program coordinator Louise Hellwig, Ph.D. encourages all interested graduate students and post docs to take advantage of this opportunity and apply soon for the next ACS meeting in the Fall. The names of the selected awardees are on page 17.

Contact:

[louise.hellwig@morgan.edu](mailto:louise.hellwig@morgan.edu)

### ▶ WOMEN CHEMISTRY COMMITTEE, WCC

The coordinators of the program both Sara Narayan, Ph.D. and Kelly Elkins, Ph.D. announced that the women lecture will take place at

the science building at Towson University. The 2024 speaker is Nicole Goodwin, Ph.D. from GSK. Her lecture will be February 19, 2024, in-person.

Lecture: *Accelerating Medicinal Chemistry through Modern High Throughput Experimentation*

More details on the meeting and lecture and reception on page 15.

### ▶ THE 2023 MARYLAND CHEMIST AWARD

The 2023 Maryland Chemist award lecture and reception will take place at John Hopkins University on Thursday, February 8, 2024. Find all the details on page 5 of this magazine.

Contact: Award Committee Chair  
[beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)



▶ The new Young Chemist Committee is planning a café event; for details contact committee chair,  
[olivia.h.wilkins@nasa.gov](mailto:olivia.h.wilkins@nasa.gov)

Previous successful programs, see page 18.

### ▶ MIDDLE ATLANTIC REGIONAL MEETING

June 5 - 8 | State College, PA



**MARM 2024**

*Celebrating Discovery*

## MEETINGS

### ▶ 2024 EXECUTIVE

#### COMMITTEE MEETING, No.1

Professor J. Peng, Ph.D. is the 2024 chair of the Maryland section. He planned the first executive meeting to be virtual and within the first two weeks of February. All members are encouraged to select the best available date and write their budget plan and activities to be discussed at this meeting.

Contact:

[iangnan.peng@morgan.edu](mailto:iangnan.peng@morgan.edu)

### ▶ MINUTES OF DEC.2023 EXECUTIVE COMMITTEE MEETING AND SOCIAL

Minutes are attached.

Louise Hellwig  
Chemistry Department, SP 212  
Morgan State University  
1700 E. Cold Spring Lane  
Baltimore, MD 21251  
443 885 2085

### ▶ 2024 ELECTED EXECUTIVE BOARD MEMBERS

Chair-Elect: VACANT

See page 3 of this magazine for names and positions of new leaders.

To announce event contact

[Chesapeake Chemist Editor in Chief.](#)



# *Accelerating Medicinal Chemistry through Modern High Throughput Experimentation.*

2024 WCC Lecture February 19, 2024



## **NIKKI GOODWIN**

Nicole (Nikki) Goodwin received a B.S. with honors in chemistry from the University of Delaware where a two-year undergraduate research experience with Douglass F. Taber cemented her interest in organic chemistry.

She subsequently earned her Ph.D. from Caltech working with 2022 Nobel Laureate David W.C. MacMillan on the development of novel organocatalytic strategies applied to the syntheses of the spiculisporic acids and cylindrocyclophanes. After graduation, Nikki started her industrial career as a medicinal chemist at Lexicon Pharmaceuticals in Princeton, NJ where she most notably was a team member and inventor of Inpefa™ (sotagliflozin), an FDA-approved dual SGLT1/2 inhibitor for heart failure.

In 2014, Nikki transitioned from the biotech sector to big pharma with a move to GSK where she is currently a director in Medicinal Chemistry focusing on the development and utilization of platform technologies and high throughput experimentation. Over the course of her career, Nikki has worked in a variety of therapeutic areas, including metabolic diseases, ophthalmology, immunology, and respiratory.

She is an active member of the American Chemical Society, ACS, and is the Industrial Vice Chair for the MEDI Division. Nikki was recently recognized by the ACS as one of its 2022 WCC Rising Stars. Growing up in southern New Jersey outside of Philadelphia, Nikki will never turn down a good pretzel or cheesesteak! More information: [Nikki's curriculum vitae and publications.](#)

Lecture Location: Science department, Towson University

Reception: 5:00 P.M.

Contact: Sara Narayan at [snarayan5@yahoo.com](mailto:snarayan5@yahoo.com)



# STUDENT AWARDS

## Lecture: Chemistries Impact on Wine Quality: Combating Smoke Taint in Recent Vintages.

By Jason Price, Head Winemaker, Robert Craig Winery, Angwin, CA 94508

April 28, 2024


**PROGRAM:** Every year each university and college in the Maryland area celebrates the best students and their research and achievements at each institution. This program has become popular and more distinguished with the years.

In the past years, the section had up to 24 or more nominees. The program includes an award lecture by a distinguished scientist, a reception for students, teachers, family and friends and a small token of appreciation for their dedication to chemistry and related fields.

Most importantly, awardees receive a certificate that recognizes their accomplishment.

This year's speaker is Dr. Jason Price, former student of Dr. Narayan. His lecture abstract, photos and biography are included.

**BIOGRAPHY:** Jason Price received his BS in Chemistry from Stevenson University in 1997. Immediately following graduation, he moved to Los Angeles, California and was hired by the Avient Corporation, formerly Polyone, as an R&D Chemist working to develop various Plastisol and Latex formulations used in the Roto-mold industry. Moving back East in 2001, Jason began working as a Chemistry Lab Technician for the Hope Creek Nuclear Power Generating Station in Hancock's Bridge, NJ. Working as a Chemist in nuclear power is subject to rigorous procedural compliance and therefore effectively breeds an industry of competent

scientists dedicated to public safety and sustained infrastructure. In 2006, during a visit to a small commercial Winery in Lancaster County, Pennsylvania Jason struck up a conversation with the winemaker and talked his way into working part-time on his days off from the power plant. One year later, Jason ceremoniously left nuclear power to pursue a career in winemaking. After 3 years working in the cellar and vineyards in Pennsylvania, Jason moved back to California in 2009 to attend the prestigious University of California at Davis's Viticulture and Enology program. After graduation, Jason continued to work in Napa Valley, eventually joining Robert Craig Winery as Assistant Winemaker in July 2015 and then promoted to Head Winemaker in 2019. Jason continues to guide the Robert Craig portfolio of wines using his Chemistry Education to optimize each wine's potential. 



Photos and information courtesy of Sara Narayan, Ph.D., Sara was Professor of Chemistry at Stevenson University and currently the coordinator of the Student Awards program at ACS Maryland Section. For more information on the award see <https://acsmaryland.org> Contact: [snarayan5@yahoo.com](mailto:snarayan5@yahoo.com). Location of the award ceremony: Notre Dame of Maryland University. Time 12:00 Noon.



# STUDENT TRAVEL AWARDS



<https://www.acs.org/meetings/acs-meetings/spring/attend/image-resources.html>

## CONGRATULATIONS!

The following students will travel to the Spring National ACS Meeting in New Orleans:

Name	PI	School	Educational level	Research Abstract
Shannon Carr	Elkins	Towson U	Undergraduate	<a href="#">SC</a>
Rick Wallace	Elkins	Towson U	Undergraduate	<a href="#">RW</a>
Matt Denny	Craig	McDaniel	Undergraduate	<a href="#">MD</a>
Lauren Logue	Craig	McDaniel	Undergraduate	<a href="#">LL</a>
Chris Goodis	Fletcher	UM School of Pharmacy	Graduate	<a href="#">CG</a>
Fatima Imtiaz	Tromberg	Hood	Undergraduate	<a href="#">FI</a>

The following three will present ONLINE so their grant will be for registration to the national meeting.

Catherine Connolly	Devadas	Towson U	high school	<a href="#">CC</a>
Mansoor Johnson	Devadas	Towson U	high school	<a href="#">MJ</a>
Darius Aligholizadeh	Devadas	Towson U	high school	<a href="#">DA</a>

Students will receive a monetary grant Of \$500.00 each to help with travel expenses and high school students will receive \$150 each for registration.

Information courtesy of  
 Louise Hellwig <[Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu)>  
 Chemistry Department, SP 212  
 Morgan State University  
 1700 E. Cold Spring Lane  
 Baltimore, MD 21251  
 443 885 2085

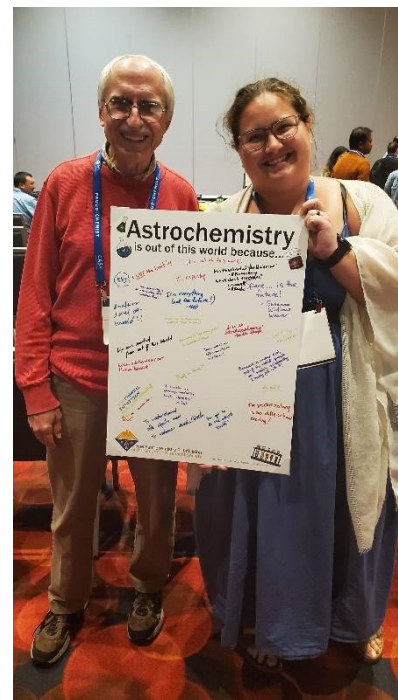
# ACS Maryland helps make ACS Fall 2023 Astrochemistry Symposium a success

By Olivia Harper Wilkins

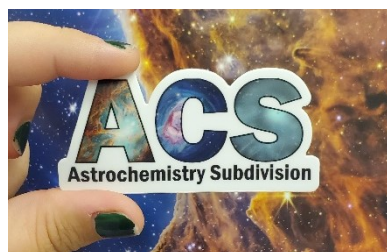
The Astrochemistry Subdivision celebrated its 10-year anniversary at the ACS Fall 2023 meeting in San Francisco, and I was honored to be one of the organizers of the symposium “The Astrochemistry Subdivision: A Decade of Progress and Prospects for the Next Decade”. Not only was being invited to co-organize a symposium with Dr. Dave Woon, the secretary of the Subdivision, a dream as an early-career scientist hoping to make my mark on the field, but this event coincided with a different, more personal milestone for me in the field.

Ten years ago, I was a summer student at Green Bank Observatory (then part of the National Radio Astronomy Observatory, or NRAO) in Green Bank, West Virginia. I was a chemistry undergraduate who had never taken an astronomy class, but a fascination (or perhaps “obsession”) with radio telescopes resembling large satellite dishes drew me to try out being a radio astronomer. It was in Green Bank as a summer student that I heard the word “astrochemistry” for the first time. It just so happens that a few weeks later, the Astrochemistry Subdivision convened for its first symposium at the ACS Fall 2013 meeting in Indianapolis.

The symposium was a success, with each of our eight sessions consistently maintaining between 35 and 65 people in attendance. Because this symposium marked such a special occasion for the Subdivision, I wanted to incorporate some community engagement activities.



**Astrochemistry Subdivision symposium co-organizers** Dave Woon and Olivia Wilkins with the community board at the end of the ACS Fall 2023 meeting.



**Astrochemistry Subdivision sticker**

## I give the Maryland Section my sincerest gratitude for making these activities possible.

Thanks to monetary support from ACS Maryland, I was able to make ACS Astrochemistry Subdivision stickers, a symposium stamp card (for which Dave and I donated prizes), and a community board on which attendees could share why astrochemistry is out of this world. These activities were positively received by attendees, and many people, from early-career astrochemists to senior Astrochemistry leadership, went out of their way to express how much fun they thought these activities were. Thanks, ACS Maryland, for helping me organize a—pardon the pun—stellar symposium! 🧪

**Olivia Harper Wilkins, Ph.D.**, is a NASA Postdoctoral Program (NPP) Fellow at NASA Goddard Space Flight Center. She is also a Maryland Section Member-at-Large, Chair of the Maryland Younger Chemists Committee (YCC), and a National YCC Affiliate. You can connect with her on Twitter (X) and Instagram at @LivWithoutLimit. She can also be reached by email at [olivia.h.wilkins@nasa.gov](mailto:olivia.h.wilkins@nasa.gov).



# JOIN THE SPEAKER'S DIRECTORY

- Speakers' directory information/contact
- Planning Events

## [Speaker Directory](#)

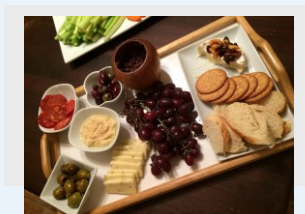
The Speaker Directory is located in the ACS Network for the perusal of vetted Local Section officers and planners. For questions and to request access to the directory contact [speakers@acs.org](mailto:speakers@acs.org).

[Planning Local Section Meetings](#) Tips on how to plan effective meetings



Courtesy of Pablo Rojas,  
The Catalyst, Boston, MA

## Laugh a little...



1. What ionic compound goes great with cheese? Sodium acetate
2. Why does a hamburger have less energy than steak? Because it's in the ground state!
3. The chemist who specializes in making soda. Is called a fizzy-cist.
3. What is the chemical formula for banana? BaNa<sub>2</sub>
4. When life gives you C<sub>6</sub>H<sub>8</sub>O<sub>7</sub> make H<sub>2</sub>O+C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>+C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>.

## 2024 Administration Officers

### 2024 Section Officers

Chair 2024	Jiangnan Peng, <a href="mailto:jiangnanpeng@morgan.edu">jiangnanpeng@morgan.edu</a>
Vice-Chair (Chair 2025)	Beatrice Salazar, <a href="mailto:beatricesalazar1@gmail.com">beatricesalazar1@gmail.com</a>
Immediate Past Chair-2023	Kelly Elkins, <a href="mailto:Kmelkins@towson.edu">Kmelkins@towson.edu</a>
Secretary 2023-2024	Louise Hellwig, <a href="mailto:louise.hellwig@morgan.edu">louise.hellwig@morgan.edu</a>
Treasurer 2023-2024	Eric C. Cotton <a href="mailto:ccotton2@ccbcmd.edu">ccotton2@ccbcmd.edu</a>
	Auditor, Lee Lefkowitz, <a href="mailto:lee_lefkowitz@hotmail.com">lee_lefkowitz@hotmail.com</a>

### 2024 Committee on Nominations & Elections (Elected by current Section Chair)

Chair	
Committee member	
Committee member	Beatrice Salazar, <a href="mailto:beatricesalazar1@gmail.com">beatricesalazar1@gmail.com</a> (vice Chair)
Committee member	Sara Narayan, <a href="mailto:snarayan5@yahoo.com">snarayan5@yahoo.com</a>
Committee member	Pumtiwitt McCarthy, <a href="mailto:pumtiwitt.mccarthy@morgan.edu">pumtiwitt.mccarthy@morgan.edu</a>

### Council/ACS Committees (3Yrs)

2022-2024 Kelly Elkins,	<a href="mailto:Kmelkins@towson.edu">Kmelkins@towson.edu</a>
2024-2026 Jan Kolakowski,	<a href="mailto:jek6042@gmail.com">jek6042@gmail.com</a>
2024-2026 Jillian Malbrough,	<a href="mailto:jillian.malbrough2@gmail.com">jillian.malbrough2@gmail.com</a>
2024-2026 Stephanie Watson,	<a href="mailto:stephanie.watson@nist.gov">stephanie.watson@nist.gov</a>

### 2024 Alternate Councilor (3-Yrs)

2024-2026 Noelle Neff	<a href="mailto:nneff@ccbcmd.edu">nneff@ccbcmd.edu</a>
2022-2026 Olivia Harper Wilkins	<a href="mailto:olivia.h.wilkins@nasa.gov">olivia.h.wilkins@nasa.gov</a>
2024-2026 Rose A. Pesce-Rodriguez	<a href="mailto:rose.a.pesce-rodriquez.civ@army.mil">rose.a.pesce-rodriquez.civ@army.mil</a>
2024-2026 Sunil Knonath,	<a href="mailto:skonath@ccbcmd.edu">skonath@ccbcmd.edu</a>
2024-2026 Vacant position	

### 2024 Member-At-Large (1-Yr)

Ayse Gul Yavuz-Cular	<a href="mailto:ayavuzcular@ccbcmd.edu">ayavuzcular@ccbcmd.edu</a>
Nicole Carbonaro,	<a href="mailto:ncarbonaro@towson.edu">ncarbonaro@towson.edu</a>
Olivia Harper Wilkins	<a href="mailto:olivia.h.wilkins@nasa.gov">olivia.h.wilkins@nasa.gov</a>
Rose A. Pesce-Rodriguez	<a href="mailto:rose.a.pesce-rodriquez.civ@army.mil">rose.a.pesce-rodriquez.civ@army.mil</a>
Saraswathi Narayan	<a href="mailto:snarayan5@yahoo.com">snarayan5@yahoo.com</a>

### Maryland Section Website/Social Media

2024 Webmaster	Nicole Carbonaro, <a href="mailto:ncarbonaro@towson.edu">ncarbonaro@towson.edu</a>
Chesapeake Chemist Editor-in-Chief	Beatrice Salazar, Chair 2018, <a href="mailto:beatricesalazar1@gmail.com">beatricesalazar1@gmail.com</a>
Social Media Liaison	Pumtiwitt McCarthy, Chair 2020, <a href="mailto:pumtiwitt.mccarthy@morgan.edu">pumtiwitt.mccarthy@morgan.edu</a>
Local Section Contact:	<a href="mailto:acsmarylandsection10@gmail.com">acsmarylandsection10@gmail.com</a>

#### AWARDS

George L. Braude Award, L. Hellwig  
Ira Remsen Award, D. Ferraris  
Maryland Chemist Award, B. Salazar  
Student Awards, S. Narayan  
Student Travel Award, L. Hellwig  
Senior Chemist Award, M. Eiss  
Younger Chemist Award, O. H. Wilkins

#### PROGRAMS

Women Chemist Committee, WCC, S. Narayan/K. Elkins  
High School outreach: B. Salazar  
National Chemistry Olympiad, USNCO  
Chemist Celebrate Earth Day, CCED  
Middle & elementary School outreach:  
R. A. Pesce-Rodriguez  
National Chemistry Week, NCW  
Chemist Celebrate Earth Week, CCEW  
Project SEED/ Summer-Research-PGM L. Hellwig  
Publicity, P. McCarthy/ B. Salazar/ N. Carbonaro  
Entertainment and Sci-tours, M. Foss/ L. Hellwig

# EVENTS CONTACT

**The U.S. National Chemistry Olympiad**

USNCO MARYLAND [URL](#) [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

WCC February Lecture [Kelly Elkins](#) | [Sara Narayan](#)

Jan - April

**Student Travel Awards**

<https://acsmaryland.org/travel-awards/>

Email: Louise Hellwig <[Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu)>

Dec – March\*

**Student Awards** <https://acsmaryland.org/student-awards/>

Email: Sara Narayan, [snarayan5@yahoo.com](mailto:snarayan5@yahoo.com)

**[Chemists Celebrate Earth Day](#)** CCED – [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

April

**National Chemistry Week, NCW/ Earth Week Events, CCEW**

[Rose Pesce-Rodriguez](#)

**Chemists Celebrate Earth Day**, CCED – [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

<http://acsmarylandevents2016.webs.com> (being updated)

**Beer & Social Tours:** Louise Hellwig <[Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu)>  
and Michele Foss <[foss.michele@gmail.com](mailto:foss.michele@gmail.com)>

April - Oct.

**Senior Awards**

Email: Merle Eiss, [meiss32@aol.com](mailto:meiss32@aol.com)

May

June-August\*

**George L. Braude Award**

<https://acsmaryland.org/braude-award/>

Email: Louise Hellwig <[Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu)>

Oct.

**The Ira Remsen Award**

<https://acsmaryland.org/remsen-award/>

Email: Dana Ferraris ([dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu))  
<[dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)>

Nov.

**The Maryland Chemist of the Year Award**

<https://acsmaryland.org/maryland-chemist-of-the-year/>

[Beatrice Salazar](#), Award Committee Chair

Dec.

\*The travel awards program runs twice a year.

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