

THE CAPITAL CHEMIST

A Publication of the Chemical Society of Washington Section of the American Chemical Society

CSW Monthly Meeting on April 6, 2022, 7:00-8:30pm ET, featuring presentation of Hillebrand Prize, Gordon Award, and ACS Volunteer of the Year Award

Schedule of Events

7:00 - 7:30 pm: Recognition of the Gordon Award and ACS Volunteer of the Year Award

7:30 - 8:30 pm: Recognition of the Hillebrand Prize and awardee's presentation

Dr. Marino will present, "Biophysical Measurement Innovation and its Centrality to Advancing Biotechnology"

This will be a Zoom meeting. There is no charge to attend, but you must register: <https://american-chemical-society.zoom.us/meeting/register/tZllc-trj4rHtO7bEKIk6JGjFtBBzALuW87>

Charles L. Gordon Memorial Award



Sara Orski, PhD
Charles L. Gordon Memorial Award

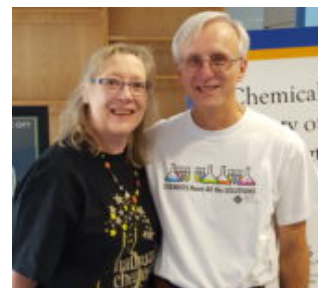
Dr. Sara Orski is recognized for her exemplary service to the profession of chemistry and to the Chemical Society of Washington.

ACS Outreach Volunteer of the Year Award

Kim Morehouse, PhD

ACS Outreach Volunteer of the Year Award

Dr. Kim Morehouse has been the driving force behind the Chemical Society of Washington's annual Chemists Celebrate Earth Week (CCEW) and National Chemistry Week (NCW) activities for the past 16 and 18 years, respectively. His efforts have impacted at least 3000 people in the past 5 years. He also ran the biannual illustrated poem contests (for K-12 students) for CCEW and NCW, actively recruited volunteers for the outreach activities, planned and prepared materials for demos and take-home bags, and partnered with other organizations for a broader participation. Kim has been instrumental in the success of these annual outreach events.



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Inside this issue:

- Register for the April CSW meeting
- Congratulate Kim Morehouse, the ACS Global Outreach Volunteer of the Year!
- View the March meeting recording
- Attend the Committee on Minority Affairs Meeting
- Submit an abstract for two symposia the ACS National Meeting
- Learn about Carleton J. Barbour, our CSW Volunteer Spotlight
- Register for the upcoming Grad School Panel
- Host an Illustrated Poem Contest
- Apply for a travel award
- Plan to attend and submit an abstract for SERMACS 2022

Hillebrand Prize



John P. Marino, PhD
Hillebrand Prize

Dr. John Marino is recognized for groundbreaking contributions to the field of biophysical characterization by high-resolution NMR and development of engineered protein reagents for next-gen proteomic measurements.

Dr. Marino will present, "Biophysical Measurement Innovation and its Centrality to Advancing Biotechnology."

Bio

Dr. John P. Marino currently serves as Co-Director of the Institute for Bioscience and Biotechnology Research (IBBR), a joint research institute of the University of Maryland and NIST and the Group Leader of the NIST Biomolecular Structure & Function Group at IBBR. He is also appointed Adjunct Professor in the Department of Chemistry and Biochemistry and is a member of the Molecular and Cell Biology Program at the University of Maryland. Prior to coming to NIST and the University of Maryland in 1997, Dr. Marino completed an A.B in Chemistry from Princeton University in 1989 and a Ph.D. in Chemistry from Yale University in 1995. He then held an Alexander von Humboldt post-doctoral fellowship for two years at the Goethe Universität in Frankfurt, Germany. Over his career, his research has involved the application of Nuclear Magnetic Resonance (NMR) and other biophysical methods to advance precision measurement of proteins and nucleic acids, with a particular focus on applications to therapeutics and vaccines. He has co-authored over 90 papers and 4 patent applications.

Abstract: "Biophysical Measurement Innovation and its Centrality to Advancing Biotechnology"

At the center of advances in biotechnology often lies new experimental approaches, analysis tools and models that address critical gaps in measurement. Innovative approaches developed to address these measurement gaps can be underpinned by standards that establish trust and accelerate broad adoption through benchmarking and harmonization. In this talk, I will highlight examples from our group at NIST of measurement innovation and standards that support protein therapeutic development and next-generation protein sequencing. Protein therapeutics are a highly successful class of drugs that are currently used to treat a number of serious and life-threatening conditions such as cancer, autoimmune disorders, and infectious diseases (e.g., COVID-19). A critical requirement unique to protein therapeutics is that these drugs must adopt and retain the correct structural fold without forming unintended aggregates. The development of precision tools for characterization of the structure of protein therapeutics has therefore emerged as a major priority in the pharmaceutical industry. To address this gap, I will describe high-resolution NMR methods developed by our group for producing spectral 'fingerprints' that can be quantitatively assessed to reveal and classify variations in structure, and how these approaches are paving the way for broad use of NMR in the industry for assessment of protein therapeutics via chemometrics and machine learning that is both objective and automated. In the second part of the talk, I will describe next-generation approaches for protein sequencing based on fluorescence imaging of immobilized peptides that are emerging and have the potential to revolutionize the field in proteomics. A key technical challenge in implementing the fluoro-sequencing approach is achieving high-fidelity, sequential recognition and detection of specific amino acids that comprise the peptide sequence. To address this challenge, I will describe how our group is leveraging naturally occurring biomolecules that can function through selective recognition of (N)-terminal amino acids (NAAs) as starting points for engineering NAA-binders (NAABs) that are suitable for use as biotechnology reagents.

Kim Morehouse honored as ACS 2022 Global Outreach Volunteer of the Year

Check out Kim's interview in C&E News about all his volunteer work for ACS and our local section! Congratulations, Kim!

<https://cendigitalmagazine.acs.org/2022/03/07/acs-honors-its-2022-outreach-volunteers-of-the-year-2/content.html>



March CSW Meeting Recording Available

Were you unable to join us for the March meeting? The recording is now available: https://american-chemical-society.zoom.us/rec/share/8_2cCUKtnYTJ1owZMAHNc6mdizTZqvbs1mroaOFbJGhPxIJ3Gvfn_Qb0QQovNnA.DHa4nMDAw0k5KVJq

Committee on Minority Affairs Meeting April 13th

The Committee on Minority Affairs would like to invite you to their next meeting. It will be held Wednesday April 13th, 2022 at 6:30pm. If you would like to get involved, please email Carissa Hunter at chunte14@gmu.edu or Reyniak Richards at richarr1@pgcc.edu for more details.

The goal of the Committee on Minority Affairs is to increase membership and participation of underrepresented minority groups within CSW through the use of resources and volunteer efforts provided by the Board of Managers. The effort will promote CSW's involvement in advancing diversity and inclusion within the American Chemical Society and overall broader chemical enterprise.

Purpose Statement:

To advance diversity and inclusion in the Chemical Society of Washington (CSW) and the broader chemistry enterprise.

Objectives:

- Sustain and dynamically develop a programmatic presence within the CSW community
- Increase the number & participation of racially & ethnically underrepresented scientists within CSW membership
- Promote the recognition of the professional accomplishments of minorities
- Provide mentoring to minority students
- Identify and collaborate with minority-friendly educational institutions and businesses

Deadline ASAP: Call For Abstracts for Committee on Technician Affairs Symposia at the ACS National Meeting

The Committee on Technician Affairs

(<https://www.acs.org/content/acs/en/about/governance/committees/technician-affairs.html>) is seeking abstract submissions from chemists working at the bench or in the field for the 2022 ACS Fall Meeting. The hybrid meeting will take place in person in Chicago, IL and virtually from August 21-25th, 2022. The Committee on Technician affairs is planning two oral symposia:

1. The first is “**Stories from the Bench & Field: Research from Chemical Technical Professionals**” and intended to allow technicians and other chemical technical professionals to share their research and career insights. This symposium is open to all fields of chemistry.
2. The second symposium is “**Sustainable Practices at the Bench**” and focuses on research and insights from chemists working in sustainability practices, green chemistry, environmental testing, and those working every day to make the chemical enterprise more sustainable.

The Committee on Technical Affairs would like you to consider submitting an abstract for an oral presentation. The purpose of these symposia is to provide a platform for chemical technical professionals to share their successes and challenges in research & development, quality control, and other vital technical roles. Contributions may be purely technical in nature, or include experiences highlighting experiences specific to chemical technical professionals.

The hybrid format of the National meeting provides a rare opportunity for chemical technical professionals, who may not receive travel support to meetings, to share their valuable insights and experience with others in the chemical enterprise using the virtual platform.

Abstract submissions closed on **March 29th, 2022**. Abstracts **may be accepted after** March 29th, but must be **submitted directly to the organizer**. Please contact the symposia organizer, jennifer.robin.mckenzie@gmail.com, for further information on how to submit an abstract. We thank you in advance for your vital contribution.

CSW Volunteer Spotlight: Carleton J. Barbour, PhD



Professional Experience: Lead Scientist at Emergent; Analytical Scientist at Particle Sciences; Associate Principal Scientist at Merck Animal Health; Senior Principal Scientist at Pfizer; Senior Scientist at Rohm and Haas Company

Education: BA, Chemistry, Cornell University; PhD, Analytical Chemistry, University of North Carolina at Chapel Hill

Volunteer Activities: Most recently, I volunteered with the CSW Minority Affairs Committee, actively participating in our STEM mentoring efforts. I am a long time ACS member who, over my 35-year membership, volunteered for many assignments. As a member of the Philadelphia section I served on their Awards Committee, Co-Chaired their Diversity Committee, and served on their Executive Board. One of my favorite volunteer activities was helping CSW set up and host panels on attending graduate school for college students thinking about careers in STEM.



Sponsored by the CSW Committee on Minority Affairs

GRADUATE SCHOOL PANEL

Wednesday, April 20th 2022
6:30-8:00 pm

Registration Required:

<https://tinyurl.com/ACSCMA22>

Plan on
applying to
Graduate
school?

Learn about:

- Graduate programs in the DMV
- The application process
- Preparing for the GRE
- Life as a graduate student
- Q&A session with current graduate students



ACS Local Section
Chemical Society of Washington

2022 Illustrated Poem Contest - deadline to submit poems is April 24, 2022, 11:59 p.m. (ET)

The Chemical Society of Washington would like to remind and encourage all students K-12 to enter the Illustrated Poem Contest. Each year the American Chemical Society (ACS) sponsors this contest as part of Chemists Celebrate Earth Week. This is a wonderful activity that encourages students to be creative. The theme this year is "Insect Chemistry", and the deadline to submit the poems is **April 24, 11:59 pm ET**. Poems should be submitted by email to csw@acs.org.



Local winners advance to the national contest for a chance to win cash prizes. ACS will award \$300 for the First Place and \$150 for the Second Place National Contest Winners in each grade category!

The grade categories are K-2, 3-5, 6-8, and 9-12.

National contest winners will be announced in May.

Learn more about the contest and its rules:

<https://www.acs.org/content/acs/en/education/outreach/ccew/plan-an-event/illustrated-poem-contest.html>

Division of Analytical Chemistry Offering Travel Awards for Younger Chemists

The Division of Analytical Chemistry is offering travel awards for Younger Chemists (under age 35) to travel to a meeting to present the results of their research. Individuals who may not have previously been able to participate in professional meetings and chemists from under-represented groups are particularly encouraged to apply. Applications are due November 1 for winter and spring meetings and May 1 for summer and fall meetings. Visit the Division website to learn more: <https://acsanalytical.org/ycctravel/>.

27th Biennial Conference on Chemical Education (BCCE) - CSW High School Teacher Travel Grant: Application Deadline EXTENDED: May 8, 2022

The Chemical Society of Washington is pleased to support travel expenses for the 27th BCCE Conference. Of the applicants, two high school teachers will be selected for the CSW High School Teacher Travel Grant each cycle.

The goal of this award is to encourage the professional development of local high school teachers and enhance their chemistry instruction. If selected, the awardee agrees to give a presentation or conduct a workshop at the ACS headquarters in Washington, DC during fall 2022 (exact date will be determined). The purpose of the presentation/workshop is to share the new knowledge gained at the conference with peers

from other schools within the CSW area. The awardee, or the awardee's academic institution, is strongly encouraged to invite other science teachers to the aforementioned event.

CSW encourages that high schools in the CSW region nominate one high school teacher per school and send an application to CSW for consideration.

The BCCE Conference provides chemistry educators with opportunities for interacting with colleagues at all levels in both formal and informal settings. Instructors who are new to chemistry education and those who have years of teaching experience will find this conference to be an excellent source of materials, techniques, and chemistry content.

High school teachers interested in obtaining a travel grant to attend the 27th BCCE at Purdue University, IN, July 31-Aug. 4, 2022, need to complete an application **by May 8, 2022** and submit it to: csw@acs.org with the subject line "BCCE Teacher travel grant".

The teacher will be notified of the award status by May 24, 2022.

Application form: https://capitalchemist.org/wp-content/uploads/2022/03/revised_-27th-BCCE-high-school-teacher-travel-grant-2022-Purdue-University-FILLABLE-FORM.docx

Travel Award Applications for ACS Fall 2022 National Meeting Due June 1st

Note: the ACS Fall 2022 National Meeting will be a hybrid event – in-person and virtual.

The Chemical Society of Washington is pleased to announce a student travel award to defray travel and/or registration costs to the Fall 2022 National ACS meeting in Chicago. Eligible expenses include meeting registration, travel expenses, airfare and lodging. Applicants should submit the following by Midnight June 1, 2022 to CSW (email: CSW@acs.org):

- A cover letter stating how and why attending this ACS meeting will promote his/her career;
- The applicant's CV;
- A letter of recommendation from the student's mentor explaining why the student deserves the award and how this will help his/her professional development;
- An accepted abstract with proof of acceptance.

View the details to submit an abstract on the ACS website.

Within three weeks of returning from the ACS meeting, the awardees should submit receipts for any or all of the eligible expenses described above, after which the Treasurer of the Chemical Society of Washington will issue a check to each of the awardees.

The award is open to students who are graduate and undergraduate students in the jurisdiction of the Chemical Society of Washington. The award is not intended for post-doctoral fellows. There will be a maximum of four awards. Each award will be for up to \$1,000 of eligible expenses based on the review of the above materials.

After returning from the conference, awardees will be asked to draft a short (1-page) summary of their experiences for posting to the Capital Chemist website and to present their posters, if applicable, at one of the upcoming CSW dinner meetings.)

SERMACS 2022 Symposium October 19-22, 2022: Innovative Ways to Communicate the Value of Chemistry to the Public

The ACS Committee on Public Relations and Communications (CPRC) invites submissions to a Symposium on Innovative Ways to Communicate the Value of Chemistry to the Public at SERMACS 2022, October 19-22, in beautiful San Juan, Puerto Rico. CPRC is especially interested in submissions by undergraduate and graduate students, student chapters, and student-led outreach programs. The number of abstracts accepted will determine the exact program; ideally there will be a session of oral presentations plus a poster session. Student poster presenters will be eligible for awards of \$150 for the top three presentations, sponsored by CPRC and SERMACS.

For information about abstracts, or SERMACS, go to <https://sermacs2022.org/>, or email sermacs2022@gmail.com.

Abstract submission will open soon.

Feel free to email the symposium organizer, Scott Goode, (goode@sc.edu) for information about CPRC.

I hope to see you in San Juan!
--Scott Goode for CPRCW

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FOR MORE INFORMATION CONTACT:
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**October 19-22, 2022
San Juan, Puerto Rico**

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- And more!

Go to www.acs.org/membership to learn more about the new ACS membership packages.

**The benefits listed above are meant to be representative of each package, but are not completely inclusive of all benefits*



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The **Chemical Society of Washington (CSW)** is the local ACS Chapter for the Washington, DC area and serves approximately 3,500 members.

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CSW Calendar of Events

April 6: CSW Virtual Meeting

April 13: Committee on Minority Affairs Meeting

April 20: Grad School Webinar Panel

April 24: Illustrated Poem Contest Deadline

May 1: Deadline to apply for Division of Analytical Chemistry Travel Award

May 8: Deadline to apply for BCCE Travel Grant

June 1: CSW Student Travel Award Deadline

October 19-22: SERMACS Conference