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# **CAPITAL CHEMIST**

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

# CSW Dinner meeting - February 20, 2025 (hybrid event) - featuring Alexandra Taraboletti, Ph.D., "PFAS Research"

# **Meeting Logistics**

**Date & time:** February 20, 2025 6:00 p.m. Check-in / Networking

6:30 p.m. Dinner 7:00 p.m. Presentation

**Location:** ACS Headquarters - Marvel Hall 1155 16th Street, N.W., Washington, DC 20036

RSVP to csw@acs.org

Hybrid Option (via zoom): <a href="https://tinyurl.com/3jxk3wmf">https://tinyurl.com/3jxk3wmf</a> (Registration Required)

Menu: Meal will be catered by W. Millar & Co. and will feature Fajitas—marinated chicken & steak strips over peppers & onions—with cilantro-lime rice and cumin black beans, flour tortillas, guacamole, cheddar, Tex-Mex salsa and sour cream. Cookies and bars and beverages will be provided. Vegetarian option will be offered only if requested.

Cost for meal: \$20.00 per person (half price for students)

# Speaker Bio

Dr. Alexandra Taraboletti is a scientist, educator, and science communicator dedicated to advancing research, education, and policy. She is an Assistant Professor of Chemistry at the University of the District of Columbia and a Scientific Program Manager at the Health and Environmental Sciences Institute (HESI). With a PhD in Chemistry from the University of Akron and a postdoctoral fellowship in Tumor Biology from Georgetown University, her research leverages Omics technologies to study human diseases, environmental toxins, and radiation damage, including innovative work in metabolomics-based biodosimetry. Passionate about education, Dr. Taraboletti integrates advanced technologies like metabolomics into inclusive STEM curricula and mentors young scientists through the ACS Project SEED program. As a former science writer for the National Heart, Lung, and Blood Institute (NHLBI), she has contributed to

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increasing public awareness of critical biomedical topics. Her work bridges research, education, and policy, fostering collaboration and impact across disciplines.

# **Volume 75, Number 2** February 2025

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### **Events**

- Plan to attend the February dinner meeting
- Save the date for 2025 events!
- 2025 Board Meeting Dates

### Awards / Opportunities

- Nominate your favorite scientist for a MARM or lota Sigma Pi Award
- Volunteer as a Project SEED mentor
- Volunteers are needed for the CSW booth at the ACS Annual Meeting this fall
- Apply for the Division of Analytical Chemistry YCC Travel Award

# Abstract, "Differential Metabolic and Toxicological Impacts of PFAS on Normal versus Tumor Cells Lines"

Per- and polyfluoroalkyl substances (PFAS) are synthetic compounds that persist in the environment and have been linked to adverse health outcomes. This study investigates the metabolic and toxicological effects of PFAS exposure in normal and tumor-derived cell lines from the prostate (PNT2 and PC-4) and brain (MO3.13 and T98G). Our findings reveal that PFAS exhibit heightened toxicity in the normal cell lines compared to tumor cell lines, with perfluorooctanoic acid (PFOA) demonstrating the highest cytotoxicity across cell types. Metabolic profiling indicates that PFAS disrupt cellular metabolism differently in normal versus tumor cells. In MO3.13 (normal brain) cells, PFAS predominantly impaired glycolytic metabolism, while T98G (glioblastoma) cells showed a more variable metabolic response. These results suggest a cell-type- and metabolism-specific vulnerability to PFAS exposure, emphasizing the need for further research into tissue-specific risks and mechanisms of PFAS toxicity. Insights from this study could inform risk assessment and therapeutic strategies for PFAS-related health impacts.

# MARM 2025 - Award Nominations Due March 2025

The 2025 Middle Atlantic Regional Awards will be presented at the 53rd Annual Mid-Atlantic Regional Meeting (MARM) of the American Chemical Society, to be held May 28-31, 2025, at Seton Hall University, New Jersey. Information about the **five major awards and their nomination forms** can be found at <a href="https://marm2025.com/awards/">https://marm2025.com/awards/</a>. If you wish to nominate yourself or your favorite scientist for an award, please download the appropriate nomination form, complete it, and submit by the appropriate deadline. To learn more details about the conference visit <a href="https://marm2025.com/">https://marm2025.com/</a>.











Award	Submission Deadline
E. Emmett Reid Award	March 8, 2025
CHED Award for Excellence in High School Teaching	March 8, 2025
Stanley C. Israel Regional Award	March 1, 2025
E. Ann Nalley Award	March 8, 2025
Bill Suits Award	March 8, 2025

# Iota Sigma Pi is seeking nominations for Professional and Student Awards - due Feb. 15, 2025

# Awards for Professional Women Chemists





• Centennial Award for Excellence in Undergraduate Teaching (\$1000): The award is given for excellence in teaching chemistry, biochemistry, or a chemistry-related field at an undergraduate institution that does not offer a graduate program in that field or holds a teaching position that is for teaching undergraduates > 75% of her time at an institution that does have a graduate program in her department.

The Deadline for submission is **February 15, 2025.** All nomination forms and criteria for the awards can be found on the website: <a href="http://www.iotasigmapi.org">http://www.iotasigmapi.org</a>. If you know eligible candidates, please take the time to nominate them. You may nominate one person for each award. The awards are administered by Director of Professional Awards, Julia Vaynberg, <a href="mailto:ispncprofessionalawards@gmail.com">ispncprofessionalawards@gmail.com</a>. Two awards are given yearly.

# Awards for Women Student Chemists

- Undergraduate Award for Excellence in Chemistry (\$1000): The award recognizes excellence in chemistry by a woman undergraduate student (senior).
- Kathryn Thomasson Undergraduate Award for Excellence in Chemistry by a First-Generation College Student (\$1000): The award recognizes excellence in chemistry by a woman undergraduate student (senior) who is in the first generation of her family to go to college.
- Gladys Anderson Emerson Scholarship (\$2000): The scholarship recognizes excellence in chemistry or biochemistry by a woman undergraduate student (junior) who is a member of lota Sigma Pi.
- Anna Louise Hoffman Award for Outstanding Achievement in Graduate Research (\$1000): The
  candidate must be a full-time woman graduate student. She will be judged on the strength of her
  research.
- Lois Jean Durham Scholarship (\$2000): The Lois Jean Durham Scholarship recognizes excellence in chemistry or biochemistry by a woman/non-binary undergraduate student. The candidate may be, but need not be, a member of ISP.
- Members-at-Large Educational Reentry Award (\$1500): This award recognizes potential excellence
  in chemistry and related fields achieved by a woman at the graduate or undergraduate level who has
  returned to academic studies after an absence of three or more years. This award is administered by
  the Members-at-Large Coordinator; <a href="MAL.iotasigmapi@gmail.com">MAL.iotasigmapi@gmail.com</a>

The deadline for submission is **February 15, 2025**. All nomination forms and criteria for the awards and scholarship can be found on the website: <a href="http://www.iotasigmapi.org">http://www.iotasigmapi.org</a>. If your institution has eligible candidates, please take the time to nominate them. Each department may nominate up to one student for each award. The awards are administered by Director of Students Awards, Sarbjeet Kaur; <a href="mailto:ispncstudentawards@gmail.com">ispncstudentawards@gmail.com</a>.

# **Project SEED Recruitment – Mentors and Students**

We will be seeking applications for Project SEED, which is a program to encourage underprivileged high school students by providing them with a paid summer research experience. Across this experience, CSW will host sessions about chemistry careers and how to present research. Students in the DC metro area will complete the program in August with a poster presentation at the ACS National Headquarters in Washington, DC. You can learn more about Project SEED at <a href="https://www.acs.org/education/students/highschool/seed.html">www.acs.org/education/students/highschool/seed.html</a>.

Student applications open in mid-February, so watch for an announcement email from CSW. The summer program is 8-10 weeks of full-time work in a local research laboratory. Students are provided a \$4000 stipend. CSW also supports students who use public transit with our Travel Green Program.

Meanwhile, we are actively seeking mentors with project proposals for the 2025 Project SEED program. The application deadline is February 3, 2025. These mentored projects should be able to be completed by competent high school students in 8-10 weeks. For more information, or if you are interested, feel free to contact Lauren Ragle (<a href="liragle@gwu.edu">liragle@gwu.edu</a>).

# Seeking Volunteers for the Local Section Booth at the 2025 ACS Fall Meeting

As you may be aware, the fall ACS meeting will be held in DC this year. As such, CSW is the local section host! We will have our own booth to welcome people to our neck of the woods. Therefore, we are seeking energetic volunteers to staff our booth. More details will come, of course, but we are going to be staffing the booth with 2 volunteers each day. Each volunteer will get a handcrafted thank

SEEKING VOLUNTEERS

you gift from our 2024 President, Lauren Ragle. If you are interested in helping, please email csw@acs.org.

# Save the date! Upcoming events for 2025

Please make note of these upcoming events for 2025:

- March 21-23, 2025: Fairfax County Science Fair Location: TBA
   They will be seeking volunteers in early 2025.
   Read more at <a href="https://www.fcps.edu/sciencefair">https://www.fcps.edu/sciencefair</a>
- April 4-5, 2025: Montgomery County Science Fair
  White Oak FDA Campus
  They will be seeking volunteers in early 2025.
  Read more at <a href="https://md-usmd03.zfairs.com/App?f=7dc7fbdf-9958-4657-b576-24cfa814e06c">https://md-usmd03.zfairs.com/App?f=7dc7fbdf-9958-4657-b576-24cfa814e06c</a>

# 2025 Board Meeting Calendar

CSW's Board of Managers (BOM) meets quarterly to discuss CSW business and to have open floor discussion of new business. This includes all officers and reports of committee chairs. Meetings are open to CSW membership. Dates of the board meetings for 2025 are as follows:

- March 17<sup>th</sup> virtual only
- May 19<sup>th</sup>
- September 15<sup>th</sup>
- November 20th virtual only

Our meetings are always from 7:00 p.m. – 9:00 p.m. and are typically hybrid (both in-person at the ACS headquarters and on Zoom). To attend, please email <a href="mailto:csw@acs.org">csw@acs.org</a> one week prior to the meeting to be put on the visitor registration for ACS Marvel Hall or to request a Zoom link if attending virtually.

# **ACS Division of Analytical Chemistry YCC Travel Award**

The ACS Division of Analytical Chemistry is offering travel awards for Younger Chemists (under age 40) 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 are particularly encouraged to apply. Applications are due Nov  $1^{\rm st}$  for winter and spring meetings and May  $1^{\rm st}$  for summer and fall meetings. More information is available on the Division website at <a href="https://acsanalytical.org/ycctravel/">https://acsanalytical.org/ycctravel/</a>. The application forms will be available when the application period is open.

## The Capital Chemist

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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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Lauren Ragle

Secretary

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# **CSW Calendar of Events**

- February 3: Project SEED mentorship deadline
- February 15: Iota Sigma Pi Award Nominations due
- February 20: CSW Dinner Meeting
- March 1-8: MARM Award Nominations Due
- March 17: CSW Board Meeting
- March 21 23: Fairfax County Science Fair
- April 4 5: Montgomery County Science Fair
- May 1: Deadline to Apply for Division of Analytical Chemistry YCC Travel Award
- May 19: CSW Board Meeting
- September 15: CSW Board Meeting
- November 20: CSW Board Meeting