

# THE CAPITAL CHEMIST



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

## Project SEED Accepting Applications

Contributed by Ajay Mallia, CSW Project SEED committee Chair

For the past 45 years, ACS' Project SEED has helped thousands of disadvantaged high school students who historically lack exposure to scientific careers by giving them an opportunity to conduct research at academic, industrial, or governmental institutions. Under Project SEED, high school students participate in a chemistry research project under the direct supervision of a mentor scientist for a period of 8 - 10 weeks during the summer months. In this program, fellows learn how to perform research, gain self-confidence, and expand their education and career outlooks to place their foot firmly in the tough and expanding job market. If selected, these students are offered two exciting research opportunities:

Summer I fellowships: For first-time participants, students conduct research in chemistry or a related field supervised by a scientist mentor and receive a fellowship award of \$2,500.

Summer II fellowships: Summer I students get a second opportunity to continue working on their Summer I project or begin a new one. Students receive a \$3,000 fellowship award.

### Eligibility

#### *Academic Requirements*

Students entering their junior or senior year in high school and who have completed at least one high school chemistry course are eligible to apply. AP Chemistry is highly recommended.

#### *Family Income Requirements*

Students must be recognized as economically disadvantaged to be considered for Project SEED. Preference will be given to students whose family income does not exceed 200% of the Federal Poverty guidelines based on family size (For example, the maximum eligible limit on annual gross income is \$48,500 for a family of 4 or \$40,180 for a family of 3).

### Application materials

*Completed application forms.* Forms can be obtained by emailing the CSW Project SEED chair, Dr. Ajay Mallia ([vajaymallia@gmail.com](mailto:vajaymallia@gmail.com)). The CSW Project SEED committee should receive all completed forms by noon on May 1, 2015.

*Scanned copy of 1040 tax form (tax year 2014).*

*One letter of recommendation* (from a chemistry teacher, preferably by email) should be directly sent to the CSW Project SEED chair. Recommendation letters should clearly state the relationship with the student and specify how well and how long the teacher has known the student. (For example, which classes you taught that the student attended.) Teachers should clearly describe why the student is exceptional/outstanding and why he/she thinks that the student will successfully complete the program.

### Selection Process

The Project SEED committee will start reviewing applications on May 1, 2015, and the results will be declared by second week of May 2015. Students will be shortlisted based on the income eligibility of the applicant, teacher's recommendation letter, and a short essay. Final selection will be based on a telephone interview with the CSW Project SEED committee. High school science teachers are needed as references to identify excellent chemistry students to participate in Project SEED and assist in the student's application process.

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**March 2015**

### **Featured Items:**

- Volunteer for Chemathon, Rockville Science Day, and the GC&E Conference
- Read about how a CSW Student Travel Award winner rediscovered his love of science
- Learn more about how Purdue University froze tuition costs

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## Looking for the March CSW Meeting Information?

Keep an eye on your inbox! Details about the March meeting are still being finalized, and will be sent via email as soon as they are available.

## Remembering My Love of Science

*Contributed by Robert Brothers*

After four long and frustrating years of graduate school I was finally able to attend my first American Chemical Society (ACS) national meeting. This experience happened just in time because I was beginning to question if I really wanted to pursue a career in chemistry (or science) at all. Fortunately, attending this conference reminded me how much I love science and chemistry.

When I first landed in San Francisco I was distraught to discover not all of California is sunny and warm. I immediately purchased a souvenir coat, several of which were conveniently sold on every street corner. I did not let the cold, overcast, rainy weather dampen my spirits; I was excited to explore a new city, to be in California for the first time, and to attend my first ACS conference.

An excellent conference experience would not be complete without making a “conference buddy” to attend events with and help you feel more comfortable when meeting new people. On my first day at the conference I met Jake, who was also a fourth year graduate student. Later he humored me in my pursuit to taste a Dungeness crab and see how it compared to the Maryland Blue Crab. We began having coffee every morning at Blue Bottle Brewers before the conference and exploring San Francisco together in the evenings.

One evening we attended the LGBT happy hour in the Russian Hill meeting room at the Marriott, which had beautiful views of the city. My exposure to other LGBT scientists has been somewhat limited, so I was pleasantly surprised by how many people I met. I found the insights and advice from everyone I spoke with to be helpful and inspiring. It was a very supportive and encouraging atmosphere for me.

While at the conference, I found the “Medicinal Chemist’s Toolbox” and “The Future of Medicinal Chemistry” seminar sessions particularly motivating. These seminar sessions educated me in the research other scientists are conducting and excited me about future job opportunities. This helped me step back and see the bigger picture outside of my research. Later during my poster presentation I was thrilled by how many people I met. I had so many interesting conversations and received helpful feedback on my research. This reignited my passion and excitement for the chemistry I am conducting.

This experience reminded me how much I love chemistry and science. The scientific banter I enjoyed with my “conference buddy,” the support and insights from other LGBT scientists, and the valuable feedback on my chemistry allowed me to redirect. I am grateful to the Chemical Society of Washington, ACS Medicinal Chemistry Division, and The George Washington University Chemistry Department, whose combined generosity provided travel grants, allowing me to completely fund my trip. This significantly reduced my stress level, allowing me to fully enjoy my experience. I am now excited and motivated to finish my work, graduate, and pursue a career as a chemist.

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*The Chemical Society of Washington (CSW) offers a travel award to defray travel and/or registration costs to a National ACS meeting. The award is open to current graduate students in the Jurisdiction of the CSW. Awardees are asked to share with CSW members something from their experience that impacted their perspective as a chemist.*

*This article originally appeared at [www.capitalchemist.org](http://www.capitalchemist.org) on 1/26/2015 in the CSW Original Articles series. Additional Original Articles can be viewed at <http://www.capitalchemist.org/category/csw-original-article/>.*

*For more information on the Student Travel Award, please look [here](#). Contact [csw@acs.org](mailto:csw@acs.org) with additional questions.*

# Volunteers Needed for 31st Annual Chemathon at UMD

Contributed by Kim Morehouse

The 31st Annual Chemathon will take place on Saturday, April 25, 2015. The Chemathon is an annual chemistry competition for high school chemistry students in Maryland, Northern Virginia, and the District of Columbia. The Chemathon competition is organized by a committee of area high school chemistry teachers and chemists, and is hosted by the Department of Chemistry and Biochemistry at the University of Maryland, College Park.

The Chemathon is open to all area high schools who would like to participate. There are two competitive tracks:

- Level I: for students who have not taken and are not currently taking AP or IB Chemistry and have not previously participated in Chemathon
- Level II: aimed at students at the AP and/or IB level, as well as previous contestants.

The theme for the posters this year is "The Chemistry of Global Infectious Diseases and Their Treatments and Cures." There is no entry or registration fee. Please see the Chemathon website for information on how to register your school (<http://www2.chem.umd.edu/chemathon/>).

The Chemical Society of Washington will once again help sponsor this event. Volunteers are needed to help judge the poster contest and assist with some of the activities that the students will be competing in. If you would like to volunteer for this event, please contact Kim Morehouse via email at [kim.morehouse@fda.hhs.gov](mailto:kim.morehouse@fda.hhs.gov).



## Chemists Celebrate Earth Day: Climate Science—More Than Just A Weather Report!

Contributed by Kim Morehouse, CCED Coordinator

Earth Day was first officially recognized on April 22, 1970 as a way to demonstrate support for a healthy environment, raise awareness about environmental issues, and remind people that we all need to contribute to a sustainable planet. For years, chemists have been promoting a better world through recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives. The American Chemical Society joined the Earth Day celebration on April 22, 2003.

The Chemical Society of Washington (CSW) will once again participate in Chemists Celebrate Earth Day (CCED) activities. Chemistry is all around us and is vital to our planet's sustainability. Whether it's used in recyclable and biodegradable materials or through the reduction of waste, chemistry is involved in ensuring that we can be eco-friendly and kind to our environment. CCED seeks to bring international focus to environmental causes, such as clean air, water, and energy. ACS offers events, contests, and educational resources for members, chemical educators, and chemistry enthusiasts to illustrate the positive role that chemistry plays in preserving the Earth. The CCED 2015 theme is "Climate Science—More Than Just A Weather Report!" exploring climate science and the role chemistry plays in the environment. More information on CCED can be found on the ACS website at [www.acs.org/cced](http://www.acs.org/cced).

CSW, in conjunction with the Chemistry Department at the Montgomery College Rockville Campus, will participate in Rockville Science Day on Sunday, April 26, 2015. Rockville Science Day is open to the general public and CSW encourages you to attend. Rockville Science Day is intended to provide a friendly environment for students and their parents to participate in hands-on demonstrations and learn more about how science and engineering are important to our society. There will be more than 70 exhibitors with hands-on activities. Additional information about Rockville Science Day can be found on their website ([www.rockvillescience.org/rcsday.html](http://www.rockvillescience.org/rcsday.html)).

This event will be co-sponsored by the CSW Outreach Committee and the CSW Environmental/Sustainability Committee. Volunteers from CSW will be providing hands-on activities for children who attend the event as a part of CSW's participation in CCED. Volunteers will also hand out copies of the *Celebrating Chemistry* publication, and various CCED-themed products. If you would like to volunteer for this event, please contact the CSW CCED coordinator, Kim Morehouse at [kim.morehouse@fda.hhs.gov](mailto:kim.morehouse@fda.hhs.gov).

# Call for Volunteers: GC&E Conference July 14-16, 2015



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The ACS Green Chemistry Institute® (ACS GCI) is excited to announce its [19th Annual Green Chemistry & Engineering \(GC&E\) Conference](#) taking place from July 14-16, 2015, at the Bethesda North Marriott Hotel and Conference Center in North Bethesda, MD. This year's theme is "Catalyzing Innovation: Smarter Research, Greener Design, Better World" and will highlight green chemistry and engineering's role in catalyzing innovation. This exciting conference will offer three days of dynamic programming and will provide a host of volunteer opportunities for local green chemistry enthusiasts!

Accordingly, ACS GCI is calling all volunteers and would like for you to be a part of the action! As a conference volunteer, we will ask you to work four hours and you will receive access to the general conference proceedings for the rest of the day you volunteer. Assistance is needed in the following areas: Onsite conference registration, technical sessions, roundtable reception, hybrid meeting session, and more. For more information, please visit [www.gcande.org](http://www.gcande.org). Teamwork makes the dream work!

## Position Opening: Administrative Assistant for the Chemical Society of Washington

The Chemical Society of Washington (CSW), a local section of the American Chemical Society (ACS), is seeking an Administrative Assistant for the CSW office in Washington, DC to support the CSW president, officers, and committee chairs. Duties include (but are not limited to):

- Coordinating monthly dinner meetings and events (to include reservations, attendance rosters, programs awards, certificates, funds collection, and host functions)
- Communicating with CSW members via postal- and e-mail
- Handling, distributing, and organizing mail and other correspondence, distributing messages to respective officers, and maintaining contact with ACS staff regarding CSW matters
- Supplying administrative support to the composition and distribution of the *Capital Chemist*, archiving and organizing CSW files, finalizing reports for the Annual Report, and providing information for the website

Responsibilities also include purchasing of all required office supplies and materials. Compensation for this position is negotiable, as are the flexible hours per week to be worked (anticipated as approximately 10-15 hrs/wk). The CSW office is in the ACS headquarters building in Washington, but some of the work may be performed from home. Please submit resume, qualifications, and expression of interest in this position ASAP, but not later than April 1, to [jtanir@hesiglobal.org](mailto:jtanir@hesiglobal.org) with "Administrative Assistant Application" in the subject line.

For additional information, you may contact Jennifer Tanir, CSW Secretary, at [jtanir@hesiglobal.org](mailto:jtanir@hesiglobal.org).

# Making Moves: Freezing the Cost of Higher Education

Contributed by [Katie Hersberger](#), [capitalchemist.org](#) Contributor

It takes money to run a successful school. Ideology aside, it's a business (more specifically a commercial non-profit). The ongoing goal is to maintain the highest level of academic and athletic performance while maximizing the productivity growth and profit of the school, all done at the lowest operating cost. Add to that the growing demands and rising costs of technology in academics.

Of the 31.1 million 18-24 year olds in the U.S. in 2011, [a whopping 42%](#) enrolled in college in the same year according to the U.S. Department of Education. Enrollment for older students is also increasing. Total enrollment estimates currently top 21 million students, who shell out on average \$9,000 in-state to \$22,000 out-of-state per year at public colleges. Even though the numbers seem eye-popping and wallet-gouging, it's a steal.

We all know firsthand that education does not come cheap. What we may not know is that, for decades, many universities have [not collected enough revenue up front](#) to meet their operating costs .

State university revenue is collected primarily in the form of donations, state subsidies, and tuition. Many of these larger universities can also rely on revenue from sporting events. As long as donations and sports bring in a consistently large amount of money and states do not decrease funding, universities can offer greatly discounted tuition.

However, this practice is a double-edged sword, evident when the economy plunges. In fact, universities and their attendees have relied on state and local government funding since the 1950s, but this funding has [decreased steadily](#) from 60% to nearly 30% of total cost since 1980. During tough times, schools raise tuition at the ire of hard-working parents and students, who hope to build a future without risking financial ruin. Schools have no choice—or do they?

Recently, Purdue University did something that seems to have flipped the script. Mitch Daniels, the former federal director of the Office of Management and Budget and two-term Indiana governor known for implementing austerity measures to balance the state budget became President of Purdue University in January 2013. Prior to his arrival, like other state universities, Purdue was suffering from budget deficits, aging buildings, and looming tuition spikes. Instead of raising tuition to cover costs, he [froze tuition](#).

Over a two-year period, Purdue University was headed into the red, to the tune of \$65 million. They were facing a potential loss of \$40 million in revenue and a proposed \$25 million for hiring new faculty for their nationally-ranked engineering program. In what the Editorial Board of USA Today suggests as "[Belt Tightening 101](#)," Daniels has added higher-deductible health care plans, reduced administrative bloat, and cut food service costs to alleviate deficits. In addition, he took on the penny-pinching measures of selling university cars, reducing college storage space, and repurposing furniture. Daniels decided that "counting every \$10,000 saved as a 'student tuition equivalent'" shows customers and donors that Purdue [values their investment](#).

The university's overall initiative, [Purdue Moves](#), focuses on affordability/accessibility, STEM leadership, world-changing research, and transformative education. This initiative, with university approval, is doing so well that [tuition freezes will be extended](#) through the 2015-2016 academic year. The graduating class of 2016 who entered in 2012 will experience the school's first flat rate tuition since the class of '76.

The nation is noticing. Even though Purdue is not the first to freeze tuition, it is making a splash. After the [Wall Street Journal](#), [USA Today](#), and the [Chicago Tribune](#) all published [articles](#) raving about Purdue's accomplishments, several university campuses have announced their efforts to freeze tuition. Included are Penn State University, University of Illinois (Urbana-Champaign, Chicago, and Springfield), University of Minnesota, and Iowa schools (University of Iowa, Iowa State University, and University of Northern Iowa), among others. It's a start—and hopefully more than just a trend—in higher education.

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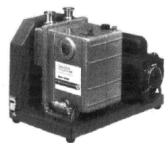
*This article originally appeared at [www.capitalchemist.org](#) on 2/5/2015 in the CSW Original Articles series. To view other articles that Katie has written, please visit <http://www.capitalchemist.org/author/khersberger/>.*

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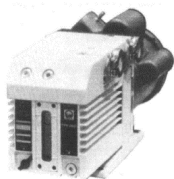
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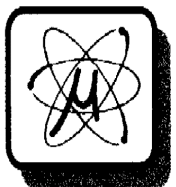
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## CSW Calendar of Events

### March

- 3/30: CSW Board of Managers Meeting

### April

- 4/25: Chemathon
- 4/26: Rockville Science Day

### May

- 5/1: Project SEED Applications Due
- 5/18: CSW Board of Managers Meeting

### July

- 7/14-16: Green Chemistry & Engineering Conference

### September

- 9/21: CSW Board of Managers Meeting

### November

- 11/23: CSW Board of Managers Meeting