

THE CAPITAL CHEMIST



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

Message from the President

Contributed by Dennis Chamot, CSW President

The Chemical Society of Washington (CSW) is a very large ACS section, with almost 4,000 members. While a relatively small group of very active members organize and carry through a wide variety of terrific programs and activities, what else could we be doing? What more do we want CSW to be in coming years? To explore these questions, a sub-group of the section's board of managers met this summer with trained facilitators in a day and a half strategic planning retreat in Washington.

The general process was developed by ACS members and staff over a number of years and fine-tuned in many forums—national committees, local sections, and the ACS Board of Directors, itself. I had participated in these exercises two or three times in the past, and was impressed with both the process and the results. The experience at the CSW retreat was, as expected, quite interesting, and I believe ultimately extremely useful. A draft plan was produced, which will be discussed at the September meeting of the CSW Board of Managers.

One very useful part of the process is the designation of strategic plan “champions” after goals and strategies have been developed and prioritized. Their role is to make sure that the proper activities are undertaken to move towards the goals. In my case, I have chosen to champion one of the strategies under the general goal of increasing CSW member participation, through development of a broad membership survey. You will hear more about this and other activities in the months ahead, but for now, if you have thoughts about specific areas to explore in the survey, please send them to me at dennischamot@yahoo.com.

CSW is a great local section. Together we can make it even more valuable to our members, to the chemical profession, and to the region in which we live.

Volume 66, Number 6
September 2016

Inside this issue:

- Message from CSW President, Dennis Chamot
- Learn about this summer's Project SEED program
- Read a recap of this year's Chemistry Olympiad—where for the second year in a row a local student participated on the US Olympiad team
- Read about the 2016 National Chemistry Week theme: “Solving Mysteries Through Chemistry”
- Volunteer with the Smithsonian's National Museum of American History

CSW Calendar of Events

September

9/10: Project SEED Research Symposium

9/12: CSW Board Meeting

October

10/16-22: National Chemistry Week

10/30: Crystal City Family Festival

November

11/4: NCW Illustrated Poem Deadline

11/29: CSW Board Meeting

CSW's Project SEED Program Still Going Strong!

Contributed by Faye Robinson, CSW Project SEED Co-Chair

CSW's Project SEED program is alive and well, despite the departure of long-time Project SEED chairman, Dr. Ajay Mallia, in July. Our three events this summer—an orientation session, a career panel, and a workshop on technical presentations and writing—have been well-attended, and the evaluations of the program by this year's students have been overwhelmingly positive. Our twenty participants this year hail from six different high schools, and a total of sixteen mentors at six different institutions have welcomed students into their laboratories.

The Project SEED Orientation was held on July 9th. After CSW President Dennis Chamot welcomed this year's participants, their families, and a number of mentors to the 2016 SEED Orientation, the floor was turned over to Ajay Mallia for a summary of the history of Project SEED and CSW's

Project SEED program in particular. We then heard from Ms. Marta Walker about the potential impact that the Project SEED program can have on her high school students each year. We also heard from one of the 2016 SEED II students, Ms. Renard Petiangamba, about her experience last summer. Dr. Travis Holman, a mentor in the program, shared his current appreciation of the opportunity to mentor the next generation of young scientists. The program then concluded with the introduction of this year's Project SEED fellows:

Deiadrach Campbell

Zane Haug

Nicholas Mbenga

Absatau Njie

Blessing Ekpo

Meron Legesse

Steven Hu

Tenneh Dukuly

Jahmally Willie

Lea Karan

Florence Kyremanteng

Johaness Osorio

Priscilla Hounkpouno

Laura Lopez

Anulichi Okorie

Tes Osei

Jenny Chen

Andrew Almeida

Tojo Rabemananjara

Renard Petiangamba



Ajay Mallia describing the Project SEED program's history, organization, and guidelines



Louis Poon introduces the speakers for the Career Panel (L-R: Safia Jilani, Kaveh Jorabchi, Wesley Farrell, Svetla Baykoucheva, Melissa Hernandez)

On July 30th, our fellows returned to hear about a number of different types of careers from a panel of our local members: Dr. Svetla Baykoucheva (UMD), Dr. Wesley Farrell (NIST), Dr. Melissa Fernandez (NIH), Ms. Safia Jilani (Georgetown), and Dr. Kaveh Jorabchi (Georgetown). The students were particularly struck by the paths that the speakers had followed on the way to their current positions (which had included several twists and turns).

Most recently, Dr. Richard Goodman and Dr. Steven Metallo provided information on technical writing and presentations in anticipation of the final event of the SEED Program event: the Project SEED research symposium. The symposium will be held this year on September 10th at ACS Headquarters, from 9:30 AM – noon.

Project SEED, Continued

One new element of the program this year has been our cooperation with Project SEED program participants at University of Maryland Eastern Shore. The program there is being organized by Dr. Victoria Volkis. Her four students (Montajha Bowen, Cierra Jennestreet, Ashley Rochford, and Alaya Lewis) have been able to join us for the career panel and technical presentation programs, and we look forward to seeing them again at the research symposium.



Project SEED students at the Technical Presentation and Writing Workshop.



Project SEED fellows from the University of Maryland Eastern Shore also attended the Career Panel.

2016 CSW High School Chemistry Olympiad

Contributed by Regina Cody, CSW Chemistry Olympiad Coordinator

Wonderful news for the 2016 CSW High School Chemistry Olympiad! For the second sequential year, one of our local students not only attended the Study Camp, but was a member of the U.S. team that participated in the International Chemistry Olympiad in Tbilisi, Georgia. Also, four students earned High Honors by placing among the top 52 scores on the National Olympiad Examination. Read on; details later.

The U.S. High School Chemistry Olympiad is an annual program for high school students that has been organized by the American Chemical Society (ACS) since 1984. The CSW is proud to have participated in this Olympiad each year. The CSW conducts its Chemistry Olympiad at two levels; the first level is the Local Section examination in March, and the second level is the U.S. National examination in the latter half of April. For the National exam, ACS allotted the CSW twenty student places with the rule that a maximum of two students can be from one school. The Local Section examination purchased from ACS was used to select these 20 students, and we work with the high school chemistry teachers for this purpose. E-mails were sent to teachers asking for the nomination of up to twenty students to take the Local Section exam, which is a multiple choice exam of 60 questions. Teachers from thirteen high schools nominated a total of 133 students. Seven of the high schools are in Maryland, five are in Virginia, and one, a new charter school, is in Washington, D.C. The teachers administered the Local Section Exam to their students and returned the answer sheets to the CSW Coordinator (Regina Cody) for grading with the answer key from ACS. From the results of this exam, the 20 students were selected to take the National Exam for the CSW. All the students who took the Local Section Exam received Certificates of Participation, as did their teachers. Those students who scored 40 or above received Certificates of Honors (40-49) or High Honors (50-60).

The National Exam was given on April 22nd in the Bioscience Education Center at the Germantown Campus of Montgomery College. This exam consisted of three separate parts, one written multiple choice, one written essay response, and one laboratory practical, and was given in the same time period, April 19-25, across the U.S. to about 1000 students. The ACS had a separate grading site and team to grade the National exam. Joyce Tian from Thomas Jefferson High School for Science and Technology in Alexandria, VA was among the 20 students who qualified for and attended the Olympiad Study Camp held at the University of Mary Washington in Fredericksburg, VA May 31 – June 15. Toward the end of the Study Camp, Ms. Tian was selected as a member of the 2016 U.S. Alpha Iota Team to participate in the 48th International Chemistry Olympiad held July 23-August 1 in Tbilisi, Georgia, and she earned a silver medal. Joyce, congratulations on a very successful Olympiad! The other three members of the U.S. team were Alex Liu of The Village School, TX, who won the eighth highest ranking gold medal, Kevin Tang of Solon High School, OH, who also won a silver medal, and Zilu Pan from Canyon Crest Academy, CA, who won a bronze medal. The U.S. Team competed against 260 students from 66 countries.

The other three students from the Washington, DC area who earned High Honors from the National Exam are:

- Jesse Huang from Richard Montgomery High School,
- James Vinson from Montgomery Blair High School, and
- Aadith Vittala from Thomas Jefferson High School for Science and Technology

The twenty students who took the U. S. National Exam for the CSW are listed below along with their teachers and high schools. These students received ACS Certificates of Participation.

Student	Chemistry Teacher	High School	City, State
Athreya Gundamraj	Michael Tomlinson	Academy of Science	Sterling, VA
Yoseph Mak	Ina Koppel	Chantilly High School	Chantilly, VA
Adithya Varadan			
Yasmin Alamdeen	Xu Duan	Holton – Arms School	Bethesda, MD
Ava Jurdanian			
Sach Thakker	Dr. Padma Iddamalgoda	James Madison High School	Vienna, VA
Ashutosh Ukey			
Matthew Seebald	Beverly Sivaslian	Landon School	Bethesda, MD
Sivan Tretiak	Leah Puhlick	Langley High School	McLean, VA
Andy Tan			
Joshua B. Fernandes	Tran Pham	Montgomery Blair High School Magnet Program	Silver Spring, MD
James S. Vinson			

Seungkyoon Bong	Prasad Gerard	Poolesville High School	Poolesville, MD
Matthew R. Feng			
Jesse Huang	Brendan Mallory	Richard Montgomery High School	Rockville, MD
Kevin Ying			
Joyce Tian	Hadan Kauffman	Thomas Jefferson High School for Science and Technology	Alexandria, VA
Aadith Vittala			
Vijay Dey	Brett Bentley	Thomas S. Wootton High School	Rockville, MD
Ethan Liu			

I thank very much the individuals below who gave generously of their time and knowledge to make the National Exam day possible.

At the Germantown Campus of Montgomery College, Professor Scot Magnotta, Chair of the Chemical and Biological Sciences Department and Vivian Kruff, Lab Manager, who did all the preparation for the Lab Practical.

Dr. Elinor Santor, Retired, who helped proctor the written exams and assisted in the breakfast-lunch room.

Mr. Xu Duan, chemistry teacher at Holton-Arms School, who helped proctor the lab practical, did initial lab clean-up, and assisted in the breakfast-lunch room.

Celebrate National Chemistry Week October 16-22, 2016: “Solving Mysteries through Chemistry!”

The NCW 2016 theme is “Solving Mysteries through Chemistry”, focusing on the science behind the use of chemistry in forensics. The electronic version of the *Celebrating Chemistry* newsletter is available from the ACS website (www.acs.org/ncw).

Each year, the American Chemical Society’s (ACS) NCW campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. NCW is a community-based annual event that unites ACS local sections, businesses, schools, and individuals in communicating the importance of chemistry to our quality of life. It is the one time during the year that chemists, regardless of background, unite with the common goal of spreading the word that chemistry is good for our economy, our health, and our well-being.

The Chemical Society of Washington (CSW), along with the ACS Office of Community Activities, is planning several NCW events. Volunteers are needed for these outreach activities. We are in the early stages of planning, so watch for additional information in the October *Capital Chemist*, or on the Capital Chemist and CSW websites.

You can contribute to the NCW campaign by performing chemical demonstrations at a neighborhood school (consider having an illustrated poem contest!); conducting hands-on activities with children at museums, malls, or libraries; or writing articles or letters to the editor of your local paper. If you would like to lead an activity at your local school or library, CSW will provide you with some grade-specific materials to hand out to the students, as well as some simple demonstrations that you can use.

More information about local activities will be posted on the CSW (www.csw-accs.org) or the Capital Chemist (www.capitalchemist.org) websites as they become available. For further information, or to volunteer, contact the CSW NCW coordinator, Kim M. Morehouse via email at kim.morehouse@fda.hhs.gov, or by phone at 240-402-1889 (day) or 301-384-7311 (evening).

CSW Participation in National Chemistry Week at Crystal City Family Festival

As part of National Chemistry Week, on Sunday, October 30, 2016, CSW will once again participate in the Family Festival event in Crystal City, Arlington, VA in conjunction with the Marine Corp Marathon, from 9:00 AM to 2:00 PM. CSW volunteers will perform hands-on activities for the children who attend and distribute copies of the *Celebrating Chemistry* newsletter and other chemistry-themed items.

To volunteer, please contact the CSW NCW Coordinator, Kim M. Morehouse via e-mail at kim.morehouse@fda.hhs.gov.

NCW 2015 Illustrated Poem Contest

Each year as part of National Chemistry Week (NCW) activities, the American Chemical Society (ACS) sponsors an illustrated poem contest for students in Kindergarten – 12th grades. Schools are encouraged to hold a contest as part of their classroom studies and submit one entry per grade category. CSW will be sponsoring a local NCW Illustrated Poem contest. The national illustrated poem contest is focused on “Where’s the Chemistry?” Participants are encouraged to explore topics related to the chemistry associated with forensics science. Write and illustrate a poem using the National Chemistry Week theme, “Solving Mysteries through Chemistry.” Your poem can be in any style as long as it is no more than 40 words. All entries must be received by the local NCW coordinator no later than Friday, November 4, 2016. Entries should be mailed to the NCW Coordinator at the CSW office. Winning entries from each grade category will be forwarded to the ACS for the national competition and will receive a local section award as well. Additional information on the contest, as well as NCW, is available on the ACS web site (www.acs.org/ncw).



2016 SEED RESEARCH SYMPOSIUM

Saturday, September 10, 2016
9:30 AM-noon
Marvel Hall, ACS Headquarters
1155 16th St, NW, DC

RSVPs due to jfr@georgetown.edu by Tuesday, September 6th

Volunteer Opportunity with the Smithsonian's National Museum of American History

The Lemelson Center for the Study of Invention and Innovation at the Smithsonian's National Museum of American History is recruiting volunteers (called Ambassadors) to work with museum visitors in Spark!Lab, its hands-on invention space for children and families. Unlike traditional classroom-style learning, Spark!Lab is very "curiosity-driven" and there is no right or wrong way to complete the activities, just challenges and prompts to get them thinking like an inventor. We focus on skills-based and inquiry-based learning techniques and applying the experience to real life examples and problems.

Spark!Lab Ambassadors will play an active role in:

- Facilitating Meaningful Visitor Experiences: welcoming a diverse group of visitors and engaging in inquiry-based discovery at a variety of hands-on activity stations; using creative methods to inspire and encourage children's and family's interest in the invention process.
- Assisting daily facility operations in Spark!Lab: getting the space and hands on activities ready for visitor use; helping with some routine maintenance necessary to keep the innovation and imagination flowing!

If you are good at and enjoy:

- tinkering, experimenting, asking questions, constructing and deconstructing things to figure out how they work
- interacting with diverse audiences, age groups and learning styles
- working in an often busy and changing environment

If you have:

- some experience working in a hands-on, informal education space
- strong interpersonal and communication skills
- an interest in invention, history and science

If you are able to:

- commit to at least two 4-hour shifts a month, (weekends and holidays available)
- handle frequent walking, standing, bending and lifting

...Then please request an application from Laurel Miller, Interpretive Exhibit Manager at MillerL@si.edu or 202.633.7304.

- Applicants must be 17 years or older.
- One full-day orientation training
- 8 hours (two 4-hour shifts) of shadowing a staff member or experienced volunteer on the floor
- Completing a background check and obtaining a Smithsonian ID badge
- A commitment of 8 hours per month (two 4-hour shifts, or one full day) of volunteering, based on your schedule and availability.

The next training session begins Saturday, September 17, 2016. For more information please visit www.invention.si.edu or contact Laurel.

The Smithsonian is an Affirmative Action/Equal Opportunity Employer. Women, minorities, people with disabilities, and candidates of all backgrounds are encouraged to apply.

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- Hospitals for technical and research personnel

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- www.mboservices.net
- <http://membership.acs.org/W/WashDC/career.html>

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