

CSW's Project SEED Program: Developing Future Chemists Today

The ACS Project SEED Program places economically disadvantaged high school students in a variety of research environments (academic, industrial, and governmental) for a period of eight to ten weeks during the summer months. For the past 41 years, Project SEED has helped high school students who historically lack exposure to scientific careers expand their education and career horizons.

The CSW Board of Managers is proud to announce that our 2010 Project SEED program successfully placed eight students in various laboratory settings in the Greater DC Metro area. The names and institutions of the six mentors who volunteered to guide these young scientists as they learned the excitement of discovery in a scientific research project are:

1) Dr. Gerhardt Riedel from the Smithsonian Environmental Research Center (SERC) in Edgewater, MD, who supervised Sharae Jackson and Sawdatou Drame, both from Annapolis (MD) High School

2) Dr. Shioh Wang from the US Department of Agriculture (USDA) in Beltsville, MD who supervised Melat Hailemariam from High Point (MD) High School and Naomi Ortiz from Northwestern High School, Hyattsville, MD

3) Professor Sarah Stroll at Georgetown University who mentored Jee In Seo from Thomas Jefferson High School for Science and Technology, Alexandria, VA

4) Professor Timothy Warren at Georgetown University who mentored Favour Okechukwu from Benjamin Banneker Academic Senior High School, Washington, DC

5) Professor Richard Weiss at Georgetown University who mentored Liliana Flores from Rockville (MD) High School

6) Professor Andrei Vedernikov at the University of

Maryland, College Park, who mentored William N. A. Sama from Northwestern High School.

These young scientists participated in a broad spectrum of research projects; topics included the biogeochemistry of trace elements in aquatic or terrestrial ecosystems, the preparation of gels and ionic liquids and their applications, hydrothermal synthesis of luminescent copper crystals, maximizing antioxidants in berry fruits, and preparing new Pd(IV) compounds as intermediates in catalytic hydroxylation. For many of these students, this was their first opportunity to experience a real “9 to 5” job while at the same time learning to work with a team of scientists.

CSW owes a huge debt of gratitude to the tireless work of Walter Benson, who has successfully led CSW's efforts in Project SEED for a number of years. Also meriting special recognition are Rolf

Renner, Nicole Payne, Dorothy Zolandz, Carol Henry, Jennifer Breidenich, and Tina Bahadori, who all worked with Walter to ensure that Project SEED was a successful experience for these students. In addition, CSW would like to recognize and thank the high school chemistry and science teachers, together with the councilors, who made Project SEED possible: Drs. John Bois and Joseph Stills of Northwestern High School; Hadan Kauffman of Thomas Jefferson High School for Science and Technology; Marta Walter of High Point High School, Vernita Jefferson of Benjamin Banneker High School, Mark Agnew of Rockville High School; Daniel Pogonowski and Eric Elston of Annapolis Senior High School, David Richards of Dunbar Senior High School, Sister Catherine Hill, K. Corenstein, A. Patton, and Cathy Duff.

Contributed by the CSW Public Relations Committee



CSW's 2010 Project SEED program included Prof. Sarah Stoll, Georgetown University; Dr. Walter Benson, CSW; and Project SEED student Jee In Seo, Thomas Jefferson (VA) High School

The Capital Chemist™



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

Volume 60 Number 6 Sep 2010

Publisher

Chemical Society of Washington

Business Staff

CSW Publications Committee

Noel Turner, Chair

703-569-5153 voice

Business Manager

Jessica Pullen, CSW

Advertising Manager

MBO Services

PO Box 1150, Marshfield, MA 02050-1150

781-837-0424 voice

www.mboservices.net

CSW Correspondence

Kristy A. Martin, Administrator

CSW, 1155 16th Street, NW, O-218

Washington, DC 20036

202-659-2650 voice

email: csw@acs.org

CSW Web site:

<http://csw.sites.acs.org>

Claims for missing issues should be sent to CSW at the above address. Member change of address should be sent to ACS, PO Box 3337, Columbus, OH 43210; phone 800-333-9511; e-mail: service@acs.org; or edit member profile online at www.acs.org.

GENERAL: The Capital Chemist (ISSN 0411-0080) is published monthly from January to December (except June, July, and August) by the Chemical Society of Washington, 1155 16th Street, NW, Washington, DC 20036. Periodical Postage is paid at Washington, DC and additional mailing offices. Subscription price is included in all membership fees; non-member subscription is \$10.00 per year.

ISSN 0411-0080

POSTMASTER: Send address changes to The Capital Chemist, 1155 16th Street, NW, Washington, DC 20036.

CSW assumes no responsibility for the statements and opinions advanced by the editor or contributors to its publication or the products and services advertised herein.

Copyright ©2010, Chemical Society of Washington.

2010 Officers

President

Carol Henry, Consultant

President-Elect

Michael Doyle, University of Maryland

Secretary

Jason E. Schaff, FBI

Treasurer

Dorothy Zolandz, National Research Council,
National Academy of Sciences

Rudy Baum to Address Retired Chemists' Lunch

The CSW Retired Chemists Group will hold its Fall 2010 luncheon on Tuesday, October 19, at Pier 7 Restaurant in Washington. The speaker will be Rudy M. Baum, Editor-in-Chief of *Chemical and Engineering News* and Senior Vice President of the C&EN Magazine Group.

Rudy Baum received a BA degree in chemistry from Duke in 1975 and after a year studying medicine at Georgetown joined the staff of the ACS Education Division. The following year he moved to *C&EN* and in 1981 became the magazine's West Coast Bureau Head. During 14 years in that position he covered numerous aspects of chemistry and related areas of science and technology, including atmospheric chemistry, the emerging AIDS epidemic, the discovery and chemistry of fullerenes and carbon nanotubes, combinatorial chemistry, and the interface of chemistry and biology. In 1994 he became *C&EN*'s assistant managing editor for science, technology and education coverage. He succeeded Madeleine Jacobs as managing editor in 1995 and as Editor-in-Chief in 2004.

C&EN has evolved from a conventional magazine to one with electronic as well as print formats. *C&EN Online*, launched in 1998, now receives more than one million hits per month. A version optimized for mobile devices was introduced at the Boston national meeting. CENTRAL Science, a portal to eight different blogs on chemical topics, and news feeds for ACS journal home pages are recent innovations. Baum's presentation will focus on *C&EN*'s evolution and the magazine's future.

The RCG Luncheon will begin with a social (cash bar) at 11:15 AM. Luncheon will begin at noon. Entrée choices: 1) Medallions of NY sirloin; 2) Breast of chicken Tarragon; 3) Broiled filet of sole and scallops; 4) Seafood Newburg with rice pilaf; 5) Vegetarian plate. Entrees are accompanied by potato du jour and mixed green salad, fresh rolls and butter, coffee (regular or decaf), tea or milk. Dessert: Ice cream log with fresh strawberry sauce.

Price is \$26.00 per person. For reservations, checks payable to Retired Chemists Group should be sent by October 12th to Dr. James Short, 19117 Rhodes Way, Gaithersburg, MD, 20886. Telephone: 301-330-5084; email: j.jshort@comcast.net. Please include in reservation the names of attendees, menu selections, and a contact phone number.

Directions: By Metro, exit at the Waterfront station on the Green Line. By auto, Pier 7 Restaurant is located at 650 Water Street, SW, in Washington (map below). Two hours' free parking in the restaurant's underground garage is available upon presentation of validated ticket. One dollar is charged for each additional hour.

The RCG offers a social program of luncheons and outings available to all. Check the new web site: <http://csw.sites.acs.org/rcg.htm>



The Capital Chemist to Become Primarily Electronic in 2011

At the May meeting of the CSW Board of Managers, a motion was passed to begin electronic distribution of *The Capital Chemist* with the January 2011 issue. A note was printed, a number of months ago, in *The Capital Chemist*, soliciting input from CSW members, as to the fact that the Board was considering the matter of electronic distribution (via computer/ internet/ E-mail, with links to the CSW and ACS websites).

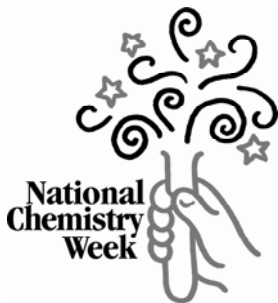
The response was small, but the overwhelming percentage of responses received (by postal mail, as well as electronically) indicated strong support of the proposed change in distribution method. With over 85 percent of CSW's members having internet access, electronic distribution will result in a significant cost reduction to CSW, and help to deliver *The Capital Chemist* to members more quickly, and hopefully more reliably. This has been the experience with

several other large ACS sections over the past few years. But, mindful of a number of members not having internet access, the Board will make a proposal that a printed copy of *The Capital Chemist* will be sent, at a nominal charge, to members who request it.

The CSW nomination and election procedures will still require mailings, as per the CSW bylaws and standing rules. As we proceed with electronic distribution of *The Capital Chemist*, it may become desirable to alter our nomination and elections procedures so as to permit the use of electronic methods. Any changes to the methods used will also have to conform to the pertinent and strict ACS Bylaws regarding balloting. There will be adequate notification to the membership concerning any proposed changes to CSW's nomination and election methods. No changes will be made in the 2011 nomination and election cycle.

National Chemistry Week is Coming in October

Chemistry is everywhere, whether prominent as a science fair project or tucked behind the scenes of a special effect or book. Current shows such as "Mythbusters" and books such as *The Science of Harry Potter* bring behind the scenes science to prominent view. This allows the public to understand it is not magic, but rather common chemistry topics which can explain the mystery behind the seemingly "magic" that is shown. We want to diminish the term "magic" associated with the "unexplainable" and direct attention to the chemistry which makes these items work.



Each year the ACS National Chemistry Week (NCW) campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. 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.

CSW, along with the ACS Office of Community Activities, is planning several NCW events. Volunteers are needed for these outreach activities.

In cooperation with the National Children's Museum, CSW will once again be participating in the Crystal City Spectacular in conjunction with the Marine Corp Marathon, Sunday, October 31, 2010. Volunteers will be performing hands-on activities for the children in attendance and handing out NCW themed publications and 'goodies'. If you would like to volunteer to assist with this event, please contact the CSW NCW Coordinator Kim Morehouse (see below).

The ACS Office of Community Activities will once again

host a chemistry recognition day at Ballou High School, 3401 4th Street SE on Tuesday, (Date and time to be determined, please watch the CSW website for more information). CSW members are encouraged to join ACS at this event by volunteering to assist with the hands-on activity tables.

As part of the NCW 2010 celebration, CSW will be sponsoring a local NCW poster contest. All entries must be received by the local NCW coordinator no later than Monday, October 25, 2010. 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. Additional information on the poster contest, as well as NCW, is available on the ACS web site (www.acs.org/ncw).



Professor Tim Warren, Georgetown University, is pictured with Project Seed student Favour Okechukwu and Nicole Payne of CSW.

More Photos from CSW's 2010 Project SEED Summer Research



Dr. Rolf Renner, CSW; Bryan Coleman; Sawdatou Drame and Sharae Jackson (Project SEED students); Dr. Gerhard Riedel, Denise Butera of the Smithsonian Environmental Research Center



Dr. Shibu Abraham, Liliana Flores (Project SEED student), Nicole Payne (CSW), Dr. Walter Benson (CSW) are pictured in the laboratory of Dr. Richard Weiss, Georgetown University Chemistry Dept.

CSW Calendar

- CSW Board Meeting: Monday, September 20, 2010, 7:00 pm
Location: ACS Hach (formerly Headquarters), Washington, DC
- October Dinner Meeting: Thursday, October 14, Location: TBD

DC Area Chemistry Seminar Schedules

Listed below are chemistry-related seminar schedule web sites from area universities, that were up-to-date as of press time. More will be posted as they become updated. Contact the department to find out about general public admission, directions to campus, and parking. **Viewing the PDF? Just click!**

Carnegie Institution of Washington: <http://www.gi.ciw.edu>

Georgetown Chem: <http://chemistry.georgetown.edu/news/seminars.html>

GMU Chem: http://chemistry.gmu.edu/seminar/seminar_fall2010.html

GWU Biochem: <http://www.gwumc.edu/biochem/biochemevents.html>

GWU Chem: <http://www.gwu.edu/~gwchem/seminars.cfm>

Maryland Biotechnology Institute: <http://www.umbi.org/home.php>

Maryland Chem: <http://www.chem.umd.edu/seminars>

Maryland Chem Eng: <http://www.chbe.umd.edu/events/seminars.html>

Maryland Chemical Physics:

http://www.chemicalphysics.umd.edu/10_seminars.htm

DC Area Chemistry Seminars: Editor's Choice

Check web sites for times and locations.

Georgetown Chem: Prof. Min Ouyang, University of Maryland, "Precisely Tailored Nanostructures: Simple Chemistry Meets Complex Physics," Thursday, September 9.

Maryland Chem: Distinguished Speaker Seminar Series, Professor Michael Strano, MIT, Friday, September 24.

Chem-Mystery



***A possibly amusing
amalgamation of
chemistry, wordplay
and trivia***

This puzzle is based on the NPR Sunday Puzzle from August 29 (see npr.org):

Take the name of a country that contains a chemical symbol within the spelling. Remove the chemical symbol, replace it with **two** chemical symbols, and the result will be the name of another country. There are several sets of answers. What are the countries and the chemical symbols? (See page 6)

Catch What You Missed at the 2010 Green Chemistry & Engineering Conference

The annual conference hosted by the ACS Green Chemistry Institute®, June 21-23, experienced a 16% increase in attendance (470 registered attendees vs. 405 in 2009), a double digit percentage increase for the second year in a row. The annual GC&E conference, which regularly attracts scientific leaders from around the world, held technical sessions and featured six well esteemed keynote speakers.

Access to recorded presentations from the 14th Annual Green Chemistry & Engineering conference is now open to the general public, at the web site: <http://www.softconference.com/ACSchem/am.asp>.

Here are some other successful accomplishments:

- 59 international attendees (12.5%) representing 20 different countries plus the US.
- The conference included 19 sponsors and 12 exhibitors.
- The travel of 32 students was supported by a grant from the National Science Foundation.
- For the sixth year ACS GCI offset carbon emissions for the GC&E conference. For more information, visit:

http://www.americanforests.org/forestbytes/june2010_fb/index.html.

- For the first time ever, the conference hosted three press briefings, which have already gained double-digit views.

For more information about the conference visit the conference website: www.gcande.org.

Request for Proposals for the 2011 ACS GCI Pharmaceutical Roundtable Research Grant

The ACS GCI Pharmaceutical Roundtable requests submission of proposals for review for work on targeted research areas. Proposals will be accepted from public and private institutions of higher education worldwide.

One grant will be awarded with the total award limited to \$150,000 for a grant period of 12 to 24 months. The selection process will be divided into a pre-proposal and a full proposal phase. Pre-proposals are due to the ACS GCI Pharmaceutical Roundtable on Wednesday, September 15, 2010 at 5 p.m. (EDT), no exceptions. Pre-proposals not received by the deadline will not be considered.

For additional information, visit: www.acs.org/gcipharmaroundtable

SPECTROSCOPIC

SAMPLING SUPPLIES and ACCESSORIES

IR - FTIR



Windows and Reflectance Plates
Liquid-Solid-Gas Accessories
Reflectance Accessories
Reconditioning HATR

NMR - EPR



Sample Tubes 5 to 30mm
Micro Tubes and Capillaries
Innovative New Products
EPR and Raman Sample Tubes

UV - VIS - FL



Quartz and Glass Cells
Fluorescence Cells
Raman Cells
Special Application Cells

View and Download all literature with pricing at www.newera-spectro.com



CAGE Code: 44ME9 DUNS: 556785657

NEW ERA ENTERPRISES, INC.

1-800-821-4667

Fax: 1-856-697-8727

cs@newera-spectro.com

BUSINESS DIRECTORY

SERVICES

NMR_{Service} 500MHz

***Mass**

***Elemental Analysis**

NuMega Resonance Labs

numegalabs.com P- 858-793-6057



Eastern Scientific

www.easternsci.com

781-826-3456

Vacuum Pump Problems?

Eastern Scientific specializes in the repair and precision rebuilding of all makes of mechanical vacuum pumps.

Free pick-up & delivery
Restrictions apply



SERVICES



Solvents
Salts
Acids
Solutions

We have all the pieces...

www.emdchemicals.com/analytics

CAREER SERVICES

SEARCHING FOR THAT SPECIAL JOB?

There are many companies and organizations searching for chemical and biochemical personnel to fill important jobs in their organizations.

- Companies for laboratory and management positions
- Universities & Colleges for teaching positions and laboratory personnel
- Hospitals for technical and research personnel

There are several web sites that may help you search for these open positions.

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

SERVICES

Chem-Mystery Answers:

Ghana: remove H for hydrogen, replace with U for uranium and Y for yttrium to obtain Guyana.

Algeria: remove Al for aluminum, replace with N for nitrogen and I for iodine to obtain Nigeria.

Poland can be converted to Iceland or Ireland.



Micron Analytical Services

**COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE**

SEM/EDXA • EPA/WDXA • XRD XRF • ESCA • AUGER • FTIR • DSC/TGA

Registered with FDA • DEA GMP/GLP Compliant

3815 Lancaster Pike Wilmington DE. 19805

E-Mail micronanalytical@compuserve.com

Voice 302-998-1184, Fax 302-998-1836

Web Page: www.micronanalytical.com

Advertisers in this issue:

Eastern Scientific6

EMD6

Micron Inc.6

New Era Enterprises5

NuMega Resonance Labs 6

Pittcon Conference & Expo 7



ARE YOU ATTRACTED TO SCIENCE...

Attend Pittcon—the magnet for scientific innovation.

We are pleased to announce that The ACS Division of Analytical Chemistry (ACS-DAC) will be co-programming with Pittcon 2011. Attend one of the many ACS-DAC sessions such as:

- Advances in Differential Ion Mobility Spectrometry
- Chemical Imaging: The Molecular View
- Proteomics: From the Top

Visit www.pittcon.org for the complete list of ACS-DAC sessions being presented at Pittcon 2011.

Register Today and Save 50%

PITTCON
CONFERENCE & EXPO
ATLANTA • MARCH 13–18 **2011**

CSW Shorts: Editor post available; CSW Happy Hour, Career Day

Capital Chemist Editor's position available in December

The position of editor of *The Capital Chemist* will be available in mid-December, for production of the January 2011 issue. Individuals interested in the editor's position are invited to send a résumé and cover letter to the CSW Office, O-218, 1155 Sixteenth Street NW, Washington, DC 20036 or e-mail at csw@acs.org to arrive no later than October 15, 2010. Writing experience, good internet skills, the ability to interact successfully with many individuals (including a printing company), and meeting a publication deadline are requirements for the position.

Questions should be sent to the CSW office. The editor's position does receive compensation.

CSW Happy Hour: September 22

Now that September is here, it's time to catch up with old friends and make new ones! You are cordially invited to join your CSW friends for a Happy Hour. Grab a drink and enjoy free appetizers! Hang out with people who really understand your chemistry jokes and share your crazy lab stories.

When: Wednesday, September 22, 6:30 - 9:00 pm

Where: Fado Irish Pub & Restaurant, 808 7th St. NW, Washington, DC 20001
www.fadoirishpub.com/washington/

Metro: Gallery Place/Chinatown
RSVP: csw@acs.org

This Happy Hour was organized by the new CSW Public Relations Committee. Do you have ideas for future activities and happy hours? Send us an email at csw@acs.org.

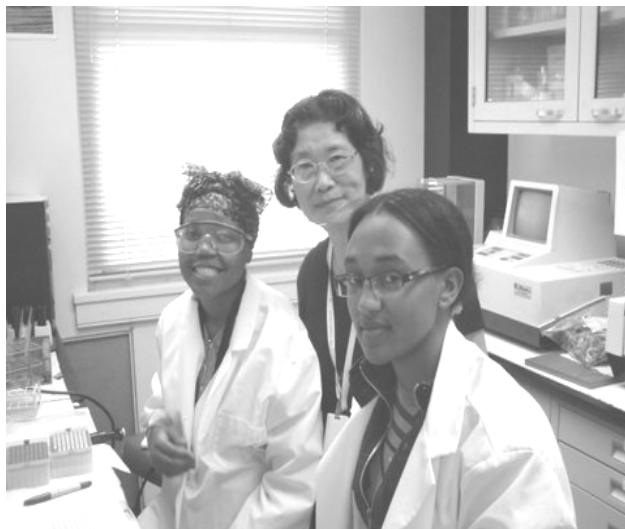
Career Day Symposium in October; Experiences from the Past and Tools to Build for the Future

"Career" can mean different things to younger chemists these days, whether at the undergraduate, graduate, or post-

doctoral experience level. In order to explore the diverse opportunities available in today's market, especially in the Greater Washington Metro area, CSW is working with the Chemistry Department at George Washington University to have an all day Workshop on Career Development at the end of October.

Plan to attend this workshop in October and hear decision makers discuss their own careers, providing practical advice on career development. Speakers will describe both conventional career paths as chemists or chemical engineers in the chemical enterprise and unconventional career paths outside traditional

chemical enterprise. Additional details will be provided in the October issue of the Capital Chemist and on the CSW website (csw.sites.acs.org).



Dr. Shiu Wang (c), USDA Labs in Beltsville, MD, supervised Naomi Ortiz (l) and Melat Hailemariam during CSW's Project SEED summer of research

The Capital Chemist
(USPS 556-400)
Publication of The Chemical Society of Washington
Section of The American Chemical Society
Dated Material

Periodical Postage
PAID
at Washington, DC

CSW: Celebrating over a Century of Service to Washington DC Area Chemists

It's easy being green! Recycle this issue and all recyclable materials.