

Jennifer Swift, Georgetown University, to speak at February CSW Meeting

Dr. Jennifer Swift, Georgetown University, will be the featured speaker at the next CSW Dinner Meeting on February 13, 2013. Details about the meeting can be found on page 2.

Dr. Jennifer Swift is a graduate of Bowdoin College and received her PhD in Chemistry from Yale University. After two years as a postdoctoral associate at the University of Minnesota, she joined the Chemistry faculty at Georgetown in 1999. Swift's research group is broadly interested in elucidating molecular crystal nucleation and growth mechanism, and developing new methods to achieve control over these processes. Ongoing research projects address fundamental questions in a number of applied systems ranging from crystal deposition diseases to model pharmaceuticals and energetic materials. Her experimental program relies heavily on techniques including, but not limited to, x-ray crystallography, atomic force microscopy, thermal characterization methods, and various spectroscopic techniques. Swift is a former two-term member of the *U.S. National Committee for Crystallography* and has served as co-director of the Georgetown Chemistry NSF-REU program since its inception in 2006. Her awards include the Georgetown College Dean's Award for Teaching, the Margaret C. Etter Award given by the American Crystallographic Association, the Camille Dreyfus Teacher-Scholar Award, and an NSF CAREER Award.



Abstract: "A Materials Chemistry Approach to Crystal Deposition Disease"

Uric acid is a natural product in purine metabolism, which can precipitate under physiologic conditions in a variety of solid state forms leading to symptoms associated with kidney stones and gout. The evolution of these

...Continued on Page 4

Akos Vertes, GWU, named 2012 Hillebrand Prize Recipient

Akos Vertes, Professor of Chemistry and Professor of Biochemistry and Molecular Biology at George Washington University has been named the recipient of the 2012 Hillebrand Prize. The Chemical Society of Washington is recognizing Vertes for "the significance and impact of his research in multiple areas of physical and analytical chemistry, including mass spectrometry, matrix assisted and electrospray ionization methods, proteomics, and real-time imaging of biological material at the cellular level."

The Hillebrand Prize, awarded



annually for original contributions to the science of chemistry by a member or members of CSW, is the most pres-

tigious honor given each year by CSW and is recognized nationally as a mark of significant accomplishment in chemistry. The prize, which originated in 1924, is named for William F. Hillebrand (1853-1925), an internationally recognized pioneer in analytical chemistry, a former President of the American Chemical Society, and one of Washington's most distinguished chemists. The Hillebrand Prize carries an honorarium of \$2000.

After receiving his Ph.D. in 1979 at the Eötvös Loránd University in Budapest, Hungary, Vertes undertook

...Continued on Page 3

The Capital Chemist™



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

Volume 63, Number 2 February 2013

Editor, Business Manager

Jessica L. Rasmussen
Voice: 202-659-2650
Email: csw@acs.org

Publisher

Chemical Society of Washington

Business Staff

Zory R. Glaser, Chair
CSW Publications Committee
202-659-2650

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

<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. Subscription price for an electronic subscription is included in all membership fees; mailed paper subscriptions are \$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 ©2013, Chemical Society of Washington.

2013 Officers

President

Douglas J. Raber, GreenPoint Science

President-elect

Kathryn Hughes, National Academies

Secretary

Alan J. Anderson, Bowie State University

Treasurer

Stefanie Sherrill, University of Maryland

THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: 1116th Dinner Meeting

Wednesday, February 13, 2013

Georgetown University

Regents Hall

Washington, DC

Agenda

6:00 pm Social Hour in the Leavey Center, with tours of Regents Hall

7:00 pm Dinner

8:00 pm College Achievement Awards

8:15 pm Presentation, Jennifer A. Swift, Georgetown University

\$30.00 Members & guests, \$15 Students

Menu: Tortilla Soup; Roasted Corn, Black Bean and Tomato Salad; Tossed Mixed Greens with Tomatoes, Cucumber, Peppers, Green Onions, Alfalfa Sprouts and Avocado, with Creamy Garlic and Cilantro Dressing and Tomatillo Lime Vinaigrette; Beef & Chicken Fajitas with Peppers, Onions, Guacamole, Sour Cream & Shredded Sharp Cheddar Salsa in Warm Flour Tortillas; Chicken Mole; Grilled Red Snapper with Freshly Made Pico de Gallo; Red Rice; Frijoles with Pork; Seasonal Fresh Steamed Vegetable Medley; Fresh Corn Tortilla Chips, and Fruit Flan with Fresh Berries and Sopapillas

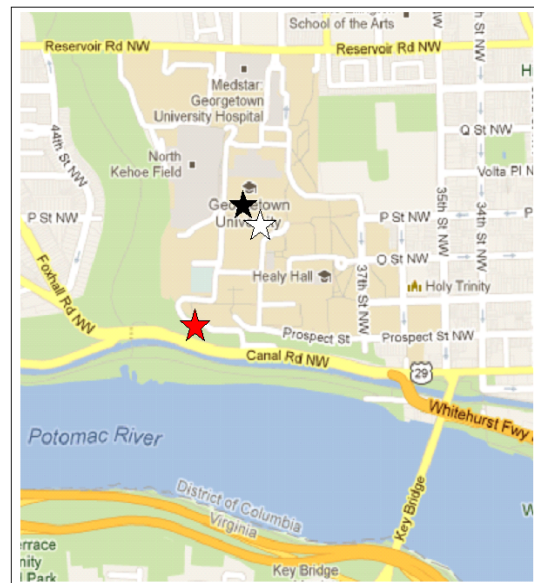
Reservations: Make reservations by **Thursday, February 7, 12:00 noon**, to the CSW office: csw@acs.org or 202-659-2650. Please designate the names in your party. The public is invited to attend. You may attend the talk only, but reservations are appreciated. **Those who make a reservation, but are unable to attend, should send a check for the cost of their meal to the CSW office.**

Parking: Parking is available.

Please follow signs for "Visitor Parking" once you enter the campus.

Directions: Please visit csw.sites.acs.org/meetings.htm for detailed directions.

Metro: There are shuttles to and from the Rosslyn (Blue and Orange Lines) and the DuPont Circle (Red line) stops. You will need to let the driver know you are attending a meeting at GU and you will need to show a photo ID, but the shuttle is free.



★ Leavey Center

★ Parking

☆ Regents Hall

CSW Participating in "Coins for Cleaner Water" Campaign

Every day, several billion people around the world live without safe drinking water. More than 4,000 children die every day from diseases as a result of drinking unsafe water. ACS is seeking to raise funds to purchase water purification packets that can be used in areas of the world where safe drinking water is not readily available. The goal of the program is simple, and if successful, the impact will be huge: a true demonstration and validation of the ACS Vision, "Improving people's lives through the transforming power of chemistry."

Procter & Gamble, in collaboration with the U.S. Centers for Disease Control and Prevention, has developed a low-cost technology in a sachet to purify heavily contaminated water so it meets World Health Organization standards for safe drinking water. P&G's water purifier packets are being distributed through its Children's Safe Drinking Water (CSDW), a special foundation the company established in 2004. Since CSDW's creation, P&G has distributed over 300 million water purifier packets throughout 65 countries. Through these efforts, over 5 billion liters of clean water have been made available to people around the globe. The program has saved more than 16,000 lives and prevented over 200 million days of diarrhea. For more information on the CSDW, please visit <http://www.csdw.org/>.

Each packet costs only 3.5 cents to produce (and 7 cents to distribute) and safely treats 2.5 gallons of water. ACS is proud to continue its partnership with P&G's Children's Safe Drinking Water program. All funds raised by ACS will go towards the production costs. Last year, *Pennies for PUR*® raised \$18,000, enough to provide more than 1.2 million gallons of clean water to developing countries. This year, our goal is to raise enough funds before May 1, 2013 to be able to provide over 1.8 million gallons of safe water!

CSW is will be helping to raise money by collecting donations during the February and March dinner meetings. Please help us in our effort to provide clean drinking water to children all over the world.

Hillebrand, *Continued From Page 1*

postdoctoral work at the University of Notre Dame in Indiana, moving to The George Washington University in 1991, where he rose through the ranks to his current position as Full Professor in 2000. He is a co-founder and co-director of the W. M. Keck Institute for Proteomics Technology and Applications, a center of strategic excellence at the university. He has also served as a Guest Researcher at the Naval Research Laboratory in Washington, D.C., as an Adjunct Scientist at the National Institutes of Health in Bethesda, MD, and has been a visiting faculty member at the Swiss Federal Institute of Technology Zurich in Zurich, Switzerland, and at the Lawrence Berkeley National Laboratory in Berkeley, CA.

Vertes has more than 140 peer-reviewed publications, 10 of which have been featured on the covers of high-impact journals, and two books. He has 5 issued U.S. patents and 13 pending patent applications, and much of this intellectual property has been licensed by the biotech industry.

The Hillebrand Selection Committee made particular note of the significance and impact of Vertes' research in multiple areas of physical and analytical chemistry, including mass spectrometry, matrix assisted and electrospray ionization methods, proteomics, and real-time imaging of biological material at the cellular level. Methodology developed by Vertes during the last two decades "are revolutionizing the role that mass spectrometry can play in the life sciences," and applying the technique at the cellular level with the ability to determine spatial resolution "is nothing short of remarkable." Dr. Vertes will present his talk, "From Fundamentals to New Tools and Back to Fundamentals" at the March CSW Dinner Meeting on March 14, 2013, to be held at Alfio's Restaurant in Bethesda.

ACS Webinars™

CLICK * WATCH * LEARN * DISCUSS

Learn more and register at

www.acswebinars.org

February 7: Formula for Financial Stability in an Uncertain Time

February 14: A Phytochemical Love Affair: Love Potion Plants with Tom Zennie

February 21: Chemical Entrepreneurship Series—The Stuff that Dreams are Made of—Part 1 with Neil Senturia and Barbara Bry

February 28: Superbug: The Quest for Drug Developers with Maryn McKenna



ACS
Chemistry for Life™

Swift, Cont. from Page 1

physiologic deposits is a multi-step process that operates on several different length scales. This talk will describe a variety of studies on three compounds: anhydrous uric acid (UA), uric acid dihydrate (UAD), and monosodium urate (MSU)—which are aimed at elucidated key steps in the development of these biomaterials. Analytical methods, including optical microscopy, X-ray crystallography, and *in situ* atomic force microscopy (AFM) and their application to crystallization processes, will be described.

CSW is on Facebook!

"Like" us today to keep up with CSW news and events!

**Calendar of Events****February Dinner Meeting**

February 13, 2013
Georgetown University
Chemistry Department

March Dinner Meeting

March 14, 2013
Alfio's Restaurant, Bethesda

Rockville Science Day

April 28, 2013
Montgomery College, Rockville

**Project SEED Needs Your Support!**

Project SEED cannot operate without the help from individuals and companies that support the Scientists-in-training. Are you interested in supporting Project SEED? This year we unfortunately turned away many applicants because of lack of funding. CSW has established the Noel Turner Memorial Fund to help support Project SEED. Your donation will be used for student stipends (\$2500 for the SEED-1 and \$3000 for the SEED-2 program). Your contribution is fully tax deductible. Contact the Project SEED coordinator, Ajay Mallia (vajaymallia@gmail.com), or CSW (csw@acs.org, phone, 202-659-2650) for more information.

WCC/Eli Lilly Travel Award Deadline February 15

The ACS Women Chemists Committee (WCC) and Eli Lilly and Company sponsor a program to provide funding for undergraduate, graduate, and postdoctoral female chemists to travel to meetings to present the results of their research. Through this program, WCC and Eli Lilly and Company continue to increase the participation of women in the chemical sciences.

Applications must be received by February 15, 2013 for meetings between July 1 and December 31. Visit the ACS website to learn more about this opportunity.

Save the Date!
ACS National Meeting

April 7-11, 2013
New Orleans, LA

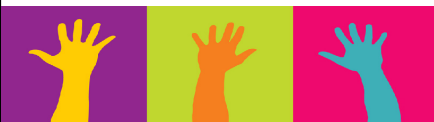
Theme: "Chemistry of Energy and Food"



ACS
Chemistry for Life™

It's easy to become a CSW volunteer!

Email csw@acs.org about upcoming opportunities today!



Do you have story ideas for the *Capital Chemist*?



Email them to csw@acs.org!

ACS-Hach Grant Applications Now Being Accepted

The ACS-Hach High School Chemistry Grant is awarded to U.S. high school chemistry teachers seeking funds to support ideas that transform classroom learning, foster student development, and reveal the wonders of chemistry. Teachers can request up to \$1,500 for their ideas. Applications are accepted annually February 1 – April 1. Applicants for the 2013-2014 award cycle will be notified of their status by June 30, 2013. Since 2008, more than 400 ACS-Hach High School Chemistry grants have been awarded to teachers with innovative and exciting ideas.

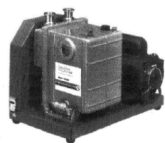
They have offered grants for:

- Laboratory Equipment & Supplies
- Instructional Materials
- Professional Development
- Field Studies
- Science Outreach Events

For more information, including past recipients, applications, and eligibility requirements, please visit <http://portal.acs.org/portal/Navigate?nodeid=2245>.

BUSINESS DIRECTORY

SERVICES



Eastern Scientific

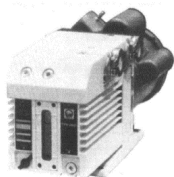
www.easternsci.com

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



NMR_{Service} 500MHz

***Mass**

***Elemental Analysis**

NuMega Resonance Labs

numegalabs.com P-858-793-6057

CAREER OPPORTUNITIES

PROMOTE YOUR PRODUCTS AND SERVICES • ADVERTISE IN THE CAPITAL CHEMIST

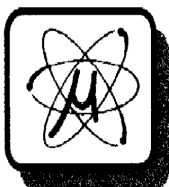
The Capital Chemist readership is greater Washington DC's largest source for chemical and biochemical buyers. *The Capital Chemist* reaches more than 4,300 readers each month. It has been estimated that these buyers annually purchase more than \$215,000,000 of:

- EQUIPMENT
- SUPPLIES
- CONSULTING SERVICES

Placing an advertisement in *The Capital Chemist* is the lowest cost method of reaching this select audience.

For further information and other options for promoting your company's products and services visit:

www.mboservices.net



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

NMR Sample Tubes

Sampling Supplies / Accessories
Quality and Value

See our full catalog/pricing at
www.newera-spectro.com

CAGE Code: 44ME9 DUNS: 556785657



New Era Enterprises, Inc.

1-800-821-4667

cs@newera-spectro.com

Do you currently receive a paper copy of the *Capital Chemist*? Would you like to?

If so, it's time to renew!

Subscriptions are \$10/year (Jan-Dec). Your subscription will start/continue in January 2013. Please note that the *Capital Chemist* is not published in June, July, and August.



Checks should be made payable to CSW, and sent to:
CSW

1155 16th Street, NW, O-218
Washington, DC 20036

Advertisers in this Issue:

Eastern Scientific.....p5
Micron.....p5
New Era.....p5
NuMega.....p5