

Astrochemist Jamie Elsila will Speak at May CSW Dinner Meeting

CSW will hold its May dinner meeting on Thursday, May 13, at NASA Goddard Space Flight Center Receptions Center in Greenbelt, MD. Dinner information and other specifics are detailed on page 2. The speaker will be Dr. Jamie Elsila, Astrochemistry Laboratory, NASA Goddard, who will present a seminar entitled, "Scientific and Regulatory Challenges to the Scientific Study of Botanicals."

Dr. Elsila is an Astrochemist at NASA's Goddard Space Flight Center with a research emphasis on stable isotopic signatures of extraterrestrial organic compounds. She received her bachelor's degree in chemistry from Kalamazoo College, then served for two years as a Peace Corps Volunteer, teaching chemistry and math at a secondary school in Tanzania. After returning to the US, she performed her doctoral research in Dr. Richard Zare's laboratory at Stanford University, using two-step laser mass spectrometry to characterize the organic content of a variety of extraterrestrial and terrestrial samples. Upon earning her Ph.D. in Chemistry in 2004, she won a NASA Astrobiology Institute postdoctoral fellowship and worked in the Astrochemistry Laboratory at NASA Ames Research Center, where she studied the chemistry of extraterrestrial organic compounds in interstellar ice analogs and carbonaceous chondrite meteorites. She continued this work as a Principal Investigator at the SETI Institute before moving to NASA Goddard as a civil servant in 2007. She is responsible for the isotopic measurement side of Goddard's Astrobiology Analytical Laboratory and focuses her research on the measurement of carbon, nitrogen, and hydrogen stable isotopic ratios in extraterrestrial organics, including amino acids in carbonaceous chondrites and cometary material returned by the Stardust mission. She is also a scientific Co-Investigator for the NASA Astrobiology Institute at the Goddard Center for Astrobiology. She has published more than 15 papers and presented her work at both national scientific conferences and in the public media.



Nominations for CSW's Top Award, The Hillebrand Prize, Due October 15

Nominations are invited for the 2010 Hillebrand Prize, awarded annually for original contributions to the science of chemistry by a member or members of the CSW.

The Hillebrand Prize is the most prestigious honor given each year by CSW and is recognized nationally as a mark of significant accomplishment in chemistry. The Hillebrand Prize originated in 1924 and is named for Dr. William F. Hillebrand (1853-1925), an internationally recognized pioneer in analytical chemistry and one of Washington's most distinguished chemists. The prize carries an honorarium of \$2,000. Many previous Hillebrand Prize winners have won numerous other national and international awards, including three who have received the Nobel Prize.

The nomination letter must be limited to 1000 words. Two seconding letters may be sent, limited to a maximum of

500 words. The package should also contain a curriculum vitae, a list of publications, and a proposed citation of not more than 25 words.

The nomination package should be submitted by e-mail, preferably as PDF file(s) to csw@acs.org. Nominations will be active for three years.

In accordance with the CSW Standing Rules, both the nominee and the nominator must be current members of CSW, but this restriction does not apply to seconding letters. If you would like to verify the eligibility of an individual as a nominee or nominator, please contact the CSW Administrator, at csw@acs.org. All materials must be received by October 15, 2010. The awardee will be announced before the end of the year, and the Prize will be presented at a CSW dinner meeting in March 2011.

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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.

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THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: 1095th Dinner Meeting

**Thursday, May 13th
NASA Goddard Space Flight Center
Recreation Center
Good Luck Road Gate No. 13
Greenbelt, MD 20771**

**6:00 pm Check in and social
7:00 pm Dinner
COST \$22.00 Members & guests
\$11.00 Students**

Menu includes: Social Hour: Open Bar (beer, wine and soda), meat balls, potato chips and pretzels. Dinner: Choice of Entrée (Please specify choice with reservation) Steak or Chicken Breast; Baked Potatoes, Oven Roasted Vegetables, Tossed Salad, Rolls and Butter, Assorted Desserts, Coffee, Tea.

Make reservations by **Monday, May 10, 2010, 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.**

Directions: From I-95/495 (Washington Beltway) take Exit 22A to the Baltimore-Washington Parkway (toward Baltimore). From the Baltimore-Washington Parkway take the exit to Greenbelt Road (Route 193); this exit is just a short distance from the Beltway and is a right turn exit. Turn left at the traffic light onto Greenbelt Road. Drive past the Main Gate of Goddard Space Flight Center on the left and go to the second traffic light which is at Good Luck Road. Turn left onto Good Luck Road. Go to the first traffic light on Good Luck Road (it has a left turn lane) and turn left into the gate (No. 13) for the Goddard Recreation Center (less than 0.5 mile from Greenbelt Road). The gate has the number 13 on it. There will be a security guard stationed just inside the gate who will check the names in your party against the attendance list. **Everyone, including those attending only the evening lecture, must call in a reservation to the CSW office so their names will be on the security list. There can be no walk-ins.**

8:00 p.m. Featured Speaker: Dr. Jamie Elsila, Astrochemistry Laboratory, NASA Goddard Space Flight Center

Title: Prebiotic Chemistry and Astrobiology at NASA Goddard (Abstract, page 3)



Call for 2010 CSW Award Nominations for Teaching and Service

CSW Community Service Award

This CSW award is given each year in recognition of outstanding service by a CSW member to the public. The award, a certificate, will be presented at the December CSW dinner meeting. Written nominations should describe why the candidate is deserving of the honor. Please send nominations by **September 15, 2010**.

E. Emmet Reid Award

The E. Emmett Reid Award is given annually by the Middle Atlantic Region (MARM) of the ACS to honor excellence in teaching chemistry at a liberal arts college which does *not* confer the Ph.D. degree. The award consists of a \$250 honorarium and a plaque. Nominating documents should include the nominee's curriculum vitae, list of publications, and an evaluation of the nominee's achievements as a teacher. These documents should clearly demonstrate the candidate's attributes including, but not necessarily limited to:

- ♦ Quality of the candidate's teaching;
- ♦ Quality of research studies undertaken with students;
- ♦ Curriculum development work;
- ♦ Publications with student co-authors;
- ♦ Ability to inspire/ challenge students;
- ♦ Extra-curricular work in chemistry;
- ♦ Courses taught, presentations made, awards received.

Abstract of CSW Dinner Meeting Presentation

Abstract: Chemistry plays an important role in the interdisciplinary field of astrobiology, which strives to understand the origin, distribution, and evolution of life throughout the universe. Chemical techniques are used to search for and characterize the basic ingredients for life, from the elements through simple molecules and up to the more complex compounds that may serve as the ingredients for life.

The Astrobiology Analytical Laboratory at NASA Goddard uses state-of-the-art laboratory analytical instrumentation in unconventional ways to examine extraterrestrial materials and tackle some of the big questions in astrobiology. This talk will discuss some of the instrumentation and techniques used for these unique samples, as well as some of our most interesting results. The talk will present two areas of particular interest in our laboratory: (1) the search for chiral excesses in meteoritic amino acids, which may help to explain the origin of homochirality in life on Earth; and (2) the detection of amino acids and amines in material returned by NASA's Stardust mission, which rendezvoused with a comet and brought back cometary particles to the Earth.

Up to three seconding letters, while not mandatory, may be included. Please submit materials by **November 1, 2010**.

Leo Schubert Award

The Leo Schubert Award recognizes outstanding teaching of high school chemistry. The award was established in 1979 to honor Dr. Leo Schubert who died that year. Dr. Schubert devoted much of his career to developing programs for high school teachers and students. The award consists of an honorarium (\$500) and a certificate, which will be presented at the December CSW dinner meeting. Nominations for the award must be comprehensive and include details such as innovation in teaching, writing curricula, outside teaching, papers published, involvement in science fairs and post graduate study. Please send nominations by **June 1, 2010**.

Charles L. Gordon Award

The Charles L. Gordon Award recognizes exemplary service to the Science of Chemistry and to the Chemical Society of Washington. Charles Gordon was an editor of *The Capital Chemist* for many years and served CSW in many ways. The award, a plaque, will be presented at the December CSW dinner meeting. Written nominations should include a description of the accomplishments on which the nomination is based. Please send nominations by **September 15, 2010**.

All nominations should be mailed or emailed to CSW at the contact information listed on page 2. All winners and their guests (with the exception of the E. Emmett Reid Awardee,) will be the guests of the CSW at the December CSW dinner meeting.

DC Area Chemistry Seminars: Editor's Choice

Check web sites for times and locations. Contact the department to find out about general public admission, directions to campus, and parking. **Viewing the PDF? Just click!**

Georgetown Chem: Dr. Ferenc Horkay, NIH, "Physical and Chemical Interactions in Cartilage Proteoglycan Assemblies," May 6.

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

Maryland Chem: Dr. James Leighton, Columbia University, "Advances in the Total Synthesis of Natural Products," May 7.

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

Call for Nominations for 2010 CSW Officers/Councilors/Managers

The annual election of Officers, Councilors and Managers of the CSW will, in accordance with the Bylaws, be held by a mail ballot in November 2010.

The current President will become Past President, and the current President-Elect will become President. Councilors serve three-year terms, as indicated below. The term of the Treasurer expires at the end of 2010. A Treasurer will be elected for a two-year term. Managers serve two-year terms as indicated below. Three Councilors, three Alternate Councilors, and six Managers will be elected according to the number of votes cast for each candidate.

All CSW Members are now invited to submit nominations for President-Elect, Treasurer, Councilors, and Managers. Self-nomination is acceptable. These nominations largely determine who will be candidates, since the CSW Bylaws state: "The candidates shall be selected in the descending order of the number of nominations received."

Nominating ballots should be submitted to the CSW Office for receipt by June 15, 2010. All CSW members are eligible for nomination. Incumbents are eligible for nomination to the same position (if the term expires) or any other position as Officer, Councilor or Manager.

Current Officers:

President: Carol J. Henry, GWU; President-elect: Michael

Doyle, UMD; Treasurer: Dorothy Zolandz, National Research Council, National Academy of Sciences

Managers

Through 2010: Tina Bahadori, ACC; Walter Benson, FDA (ret.); Jennifer Breidenich, JHU; Daron Freedberg, FDA; Kenneth Kirk, NIH; Nicole Payne

Through 2011: Catherine C. Fenselau, UMD; Zory Glaser, JHU; Joshua Goldberg, Nath & Associates; Robert Wiacek, Pixelligent Technologies; Wayne R. Wolf, USDA; Jennifer Young, ACS

Councilors

Through 2010: Joseph M. Antonucci, NIST; Regina J. Cody, NASA; N. Bhushan Mandava, Consultant

Through 2011: Douglas Raber, Greenpoint Science; Noel Turner, NRL (ret.); James Zwolenik, NSF (ret.)

Through 2012: John Malin, ACS (Ret.); Kim Morehouse, FDA; John Ruth, USDA (ret.)

Alternate Councilors

Through 2010: Jerainne Johnson, NIST; Fred Metz, EPA (ret.); Vacancy

Through 2011: Philip DeShong, UMD; Carol Henry, GWU; Jennifer Sample, JHU

Through 2012: Robert Barron, FDA (ret.); Elise Ann Brown, USDA (ret.), Steven Carlo, consultant

Nomination Ballot Instructions – Please Read Carefully

1. Use the nomination form, a copy of the form, or write the requested information on a sheet of paper and label it "Nomination Ballot".
2. For each nomination, indicate the corresponding office, name of the nominee, and the nominee's telephone number or email address, if known. IMPORTANT: If you have determined that the nominee is a CSW member and is willing to be a candidate, please indicate by marking "y" for yes next to the candidate's name.
3. DO NOT sign the Nomination Ballot. If your signature appears on the ballot it will be invalidated. Anonymity for nomination ballots is a requirement of the ACS By-Laws V Section 11 c.
4. Place the ballot in an envelope, sign your name on the outside and print your name underneath.
5. Mail **in time to arrive by June 15, 2010** to: Chemical Society of Washington, (CSW); Attn: Chair, Nominations Committee; 1155 16th St., NW, O – 218; Washington, DC, 20036.

2010 CSW Nomination Ballot – Nominations are invited for the following offices/positions (numbers of positions to be filled shown in parentheses). President-Elect (1); Treasurer (1); Councilors, including Alternate Councilors (6); Managers (6).

For Each Nominee: please indicate the Office or Position, the Name of the Nominee, whether the Nominee is a CSW member and is willing to be a candidate (indicate "y" under "willing to run") and, if known, the telephone number (including area code) and e-mail address of the nominee. Kindly write/print CLEARLY.

Office/Position	Name of Nominee	Willing to run (y)?	Phone No.	e-mail address

Please use Additional Paper, if necessary.

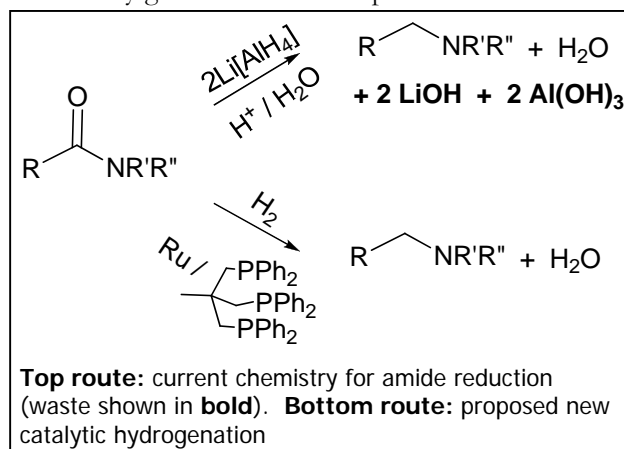
ACS GCI Bestows Research Grant to David Cole-Hamilton of Scotland

The ACS GCI Pharmaceutical Roundtable research grant award recipient, David Cole-Hamilton, Irvine professor of chemistry, EaStCHEM, University of St. Andrews, Scotland, is making great strides in expanding green chemistry and engineering practices in the global pharmaceutical industry.

David Cole-Hamilton's study seeks to provide safer and environmentally friendly solutions to convert amides to amines, important in the development of many pharmaceutically active compounds. Conversion of the amide to the amine is usually conducted using a metallic hydride source such as sodium borohydride or lithium aluminum hydride. The reactions are stoichiometric and large amounts of aluminum or boron containing side products are formed. Requiring separation from the desired amine product, these side products are usually disposed of in a landfill. The Roundtable identified greener amide reductions as one of the 12 key green chemistry research areas important for

the pharmaceutical industry (*Green Chem.*, 2007, **9**, 411 - 420, DOI: 10.1039/b703488c).

Cole-Hamilton's study will build upon exciting preliminary results, which proved it should be possible to use catalytic amide hydrogenation, which would only give water as a side product.



If the catalyst is very active or can be recycled, there is no need for any significant waste from this reaction.

The grant program has awarded Dr. Cole-Hamilton \$150,000 for one year.

Since 2007 the grant program has awarded \$800,000 towards research in the 12 key green chemistry research areas; all funding is made possible by a partnership between the American Chemical Society (ACS) and an alliance of major pharmaceutical companies—Abbott Laboratories, AstraZeneca,

Boehringer Ingelheim, Codexis, Dr. Reddy's, DSM Pharmaceutical Products, Eli Lilly and Company, GlaxoSmithKline, Johnson & Johnson, Merck & Co., Inc, Novartis, Pfizer, Roche, and ACS GCI.

Under the leadership of Cole-Hamilton, the St. Andrews group will collaborate with members of the Roundtable to improve the technology and allow it to be introduced widely and without restriction into the pharmaceutical industry. Major targets will be lowering the temperature and especially the pressure at which reactions are carried out, improving the selectivity towards the desired amines (currently 85-90 %, with alcohols as the side products) and exploring scope and the functional group tolerance of the reaction.



Recipients of 2010 CSW College Achievement Awards: Each year CSW offers the College Chemistry Achievement Award to outstanding seniors majoring in chemistry or biochemistry in the four-year colleges and universities in CSW's geographic area. (left to right) Philip Birgenheir, The Catholic University of America; Jennifer Day, George Washington University; Jennifer Dysart, George Mason University; Stephanie Galanie, University of Maryland; Cynthia Lawson, St. Mary's College (MD); Lindsey Roeker, Georgetown; Cameron Sweeney, Georgetown.

CSW Calendar

CSW Board Meeting
Monday, May 17, 2010

Location: ACS Hach (formerly Headquarters), Washington, DC

Nominations for the 2010 ACS
Fellows are due May 7

Student applications for Project
SEED are due June 1

Project SEED Applications Now Available; Submissions Due in May

CSW will be participating in the ACS 2010 Project SEED Program, funding 9 students with mentors. This 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 expand their education and career outlooks by providing opportunities for students who historically lack exposure to scientific careers.

Under Project SEED, high school students participate in a scientific research project in chemistry under the direct supervision of a mentor scientist. If selected, these students are offered two exciting research opportunities:

- The Summer I program will provide first-time participants (rising

juniors and seniors) a fellowship award of \$2,800.

- The Summer II program will provide Project SEED Summer I students with an additional summer of scientific research. These students will receive a fellowship award of \$3,300. Additionally, Summer II students will be eligible for travel grant of up to \$100 to present their research at an ACS or other scientific meeting contingent on availability of funds.

High School science teachers are needed as sponsors to identify excellent chemistry students to participate in Project SEED and assist in the application process. These students must be economically disadvantaged (family income for 2008 or 2009 of less than \$50,000), must be enrolled in high school and must have taken one year of high school chemistry. Applications and financial statements are due to Dr.

Walter Benson on May 30, 2010 (WBenson270@aol.com). See web site www.acs.org/projectseed.

Use the CSW Web Site!

Each edition of *The Capital Chemist* is available at the CSW web site, <http://csw.sites.acs.org>, on about the 20th of each month preceding the month of that issue.

The CSW web site includes links to other information on:

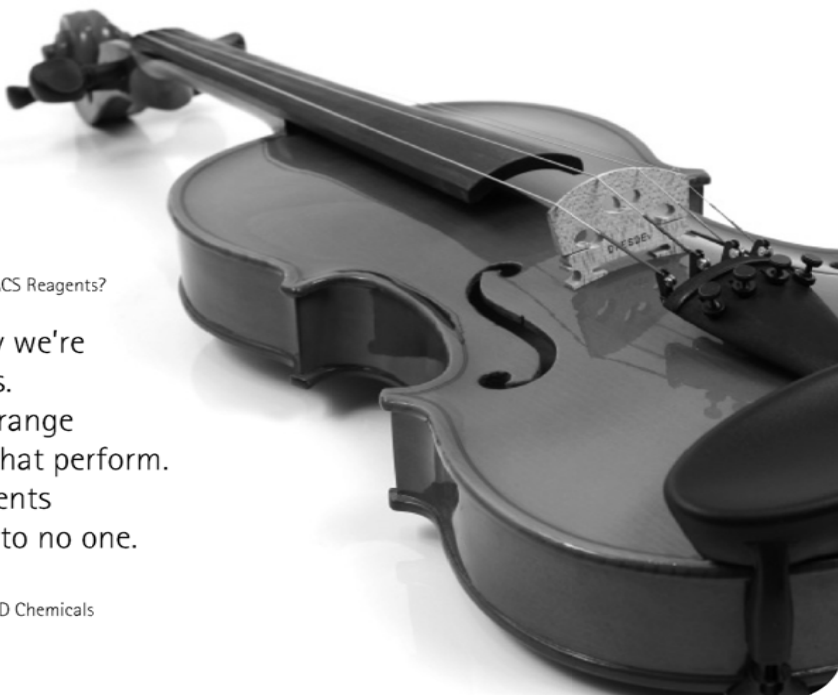
- Chemistry education
- Historical Dates in Chemistry, compiled by Dr. Leopold May
- The CSW Retired Chemists' Group: <http://csw.sites.acs.org/rcg.htm>
- Awards, meetings, activities careers, other CSW notices
- Contact information for CSW officers

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Please visit www.ida.org to learn more about us. To apply, e-mail your resume to <http://jobs-ida.icims.com/jobs/1223/job>, specifying Capital Chemist. In addition to openings for PhDs we also have paid summer internships for rising seniors and grad students. IDA is proud to be an equal opportunity employer.

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The 14th Annual GC and E Conference Returns to a Greener DC *District committing to becoming one of the world's most sustainable cities*

ACS Green Chemistry Institute® is pleased to announce the 14th Annual Green Chemistry and Engineering conference (www.gcande.org) will be held June 21-23 at the Capital Hilton Hotel located on 16th Street, just north of the White House, in Washington.

According to the Green DC Agenda website, Mayor Adrian M. Fenty stated, "The District of Columbia is critical to our nation's environment – not just in its role as the nation's capital, but also in its role as a city. My administration is committed to enhancing green programs and services."

With an overarching theme of "Innovation and Application," this year's conference will celebrate recent innovations and applications at the cutting edge of green chemistry. The conference heightens the efforts of Washington, DC city officials, by addressing environmental challenges and exploring solutions of today for future generations — through green chemistry and engineering for a sustainable tomorrow.

With one of the renowned founders of green chemistry, Dr. John Warner (President and CTO, Warner Babcock Institute for Green Chemistry) as the chair, this conference is shaping up to be one you won't want to miss! Confirmed keynote speakers include the popular environmentalist, entrepreneur and author Paul Hawken; 2005 Nobel Prize winner, Dr. Robert Grubbs; Senior Vice President of Research and Technology at 3M, Mr. Steven Webster; and US Congressman John Tierney (D-MA), co-sponsor of the "Green Jobs Act."

The conference, sponsored in part by the United States Environmental Protection Agency and DOW, Inc., will focus on more than fifteen areas of green chemistry and engineering, including bio-fuels, education, energy, entrepreneurship, environmental health

sciences, international activities, pharmaceuticals, and sustainable design concepts.

For more information on how to

register, visit the conference website at www.gcande.org. Volunteer opportunities are available; for more information, contact gci@acs.org.

Green Chemistry Webinar: Innovation and Application for the New Decade, May 20

We all hear about the need to be green and sustainable, but what does it really mean for chemical professionals? Green chemistry is here to stay and the industry is expected to grow rapidly in the next decade. Join us as

Anne Wallin, Director of Sustainable Chemistry at Dow Chemical, provides



us an insight into how green chemistry is applied in the chemical industry. Learn about the desired green innovations and how green chemistry is driving investment decisions for the next decade. View and register for upcoming events at http://boilthisdown.org/?page_id=385 or email acswebinars@acs.org.

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