

## George Gray, GWU, to Speak at November Dinner Meeting

On November 17, Dr. George Gray, GWU, will speak at the November dinner meeting. The title of his talk is “Hormesis in Regulatory Risk Assessment—Science and Science Policy.”

Dr. George M. Gray is Professor of Environmental and Occupational Health and Director of the Center for Risk Science and Public Health at the George Washington University School of Public Health and Health Sciences. From 2005 to 2009 he served as the Assistant Administrator for the Office of Research and Development and the Science Advisor at the U.S. Environmental Protection Agency. Prior to joining the EPA, Dr. Gray was Executive Director of the Harvard Center for Risk Analysis and a member of the faculty of the Harvard School of Public Health.

Dr. Gray’s primary research interests are risk characterization, risk communication, and the role of science in policy-making. In government service he focused specifically on continued scientific excellence in EPA research, advocated the continuing evolution of EPA approaches to analysis, and strongly encouraged programs that provided academic research to support the EPA’s mission. Areas of particular emphasis included nanotechnology, ecosystem research, the role of advances in toxicologic approaches in toxicity testing and risk assessment, and promoting sustainability.

He has published on both the scientific basis of human health risk assessment and on its application to risk policy with a focus on risk/risk tradeoffs in risk management. His professional service includes serving as a Councilor for the Society for Risk Analysis, and on the Risk Assessment Task Force, Congressional Task Force and Communications Committee of the Society of Toxicology. He also serves on a Food and Drug Administration, Center for Food Safety and Applied Nutrition (CFSAN) Food Advisory Committee, the NIEHS National Advisory Environmental Health Science Council, and an IOM Committee evaluating the components of the Women, Infants and Children (WIC) food packages.

Dr. Gray holds a B.S. degree in Biology from the University of Michigan, and M.S. and Ph.D. degrees in Toxicology from the University of Rochester.



*Speaker abstract located on page 2*

## Project SEED Mentor Research Proposals Due January 30

Are you interested in becoming a Project SEED mentor for 2012? The deadline for Project SEED mentors to send their research proposals is January 30, 2012. For complete guidelines, visit [www.acs.org/projectseed](http://www.acs.org/projectseed). If you have any questions, contact Walter Benson, CSW Project SEED Coordinator, at [wbenson270@aol.com](mailto:wbenson270@aol.com).

It’s also time for high school



teachers and councilors to begin thinking about potential Project SEED can-

didates for 2012. In order to be eligible to participate in Project SEED, students need to have completed a year of chemistry class by June 2012, and be able to prove economic disadvantage. For information on Project SEED and student eligibility, please visit the Project Seed website at [www.acs.org/projectseed](http://www.acs.org/projectseed).

To obtain student financial

*...Continued on page 3*

## The Capital Chemist™



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## THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: *1105th Dinner Meeting*

Thursday, November 17, 2011

Joe Theismanns's Restaurant

1800 Diagonal Road

Alexandria, VA 22314

6:00 p.m. Social Hour (Cash Bar)

7:00 p.m. Dinner

8:00 p.m. Dr. George Gray, GWU

**COST** \$30.00 Members & guests, \$15 Students

**Menu:** Several entrees will be offered, including Maryland Crab Cakes, Eggplant Parmesan, Fresh Idaho Rainbow Trout, Chicken Romano, Grilled Filet Mignon, and others. Entrees will be chosen from the menu the evening of the event. The full menu is available on the CSW website at <http://csw.sites.acs.org/meetings.htm>.

**Reservations:** Make reservations by **Monday, November 14, 2011, 12:00 noon**, to the CSW office: [csw@acs.org](mailto: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:** There is limited street parking available (meters enforced until 7pm), and a parking garage adjacent to the restaurant. The restaurant will validate up to 3 hours of parking. After that, a flat rate is charged. For more information, visit <http://www.joetheismanns.com/index.php/parking/>.

**METRO:** Across from the King Street station, blue and yellow lines

### **Speaker Abstract, "Hormesis in Regulatory Risk Assessment—Science and Science Policy"**

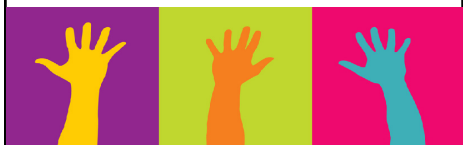
Hormesis is often defined by toxicologists as a biphasic dose response to an environmental agent characterized by a low dose stimulation or beneficial effect and a high dose inhibitory or toxic effect. It has been demonstrated in a wide range of organisms and systems in response to a very wide range of stressors. Hormesis has potential implications for regulatory risk assessment, which is focused on low-level exposures to chemicals and other agents. In this presentation, I will argue that whether hormesis is considered in regulatory risk assessment or not is a matter less of science than of science policy. I will first discuss the distinction between science and science policy and their roles in regulatory risk assessment. Then I will focus on factors that influence science policy, especially as it relates to the conduct of risk assessments to inform regulatory decisions, with a focus on the U.S. Environmental Protection Agency (EPA). The key question will then be how does hormesis interact with current concepts of science and science policy for risk assessment? Finally, I look ahead to factors that may increase or decrease, and the likelihood of hormesis being incorporated into regulatory risk assessment.

## Correction

In the October 2011 issue of the *Capital Chemist*, it was incorrectly stated on page 7 that ACS Directors-at-Large are elected by the full membership of ACS. According to the ACS Governing Documents Bulletin 5, it is stated in Article X., Section 1. Item b: Directors-at-Large shall be elected by the Council. We apologize for this error.

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## Project SEED, Continued From Page 1

statement forms and applications, please write to the American Chemical Society at:

**American Chemical Society**

Attn: Mrs. R. Rasheed, Project SEED  
1155 Sixteenth Street, NW  
Washington, DC 20036

The deadline for students to send completed financial statements and applications is May 31, 2012, though should be sent as soon as possible. Applications and financial statements should be sent to Dr. Walter Benson, [wbenson270@aol.com](mailto:wbenson270@aol.com)

Project SEED 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.

Questions? Please email [csw@acs.org](mailto:csw@acs.org).

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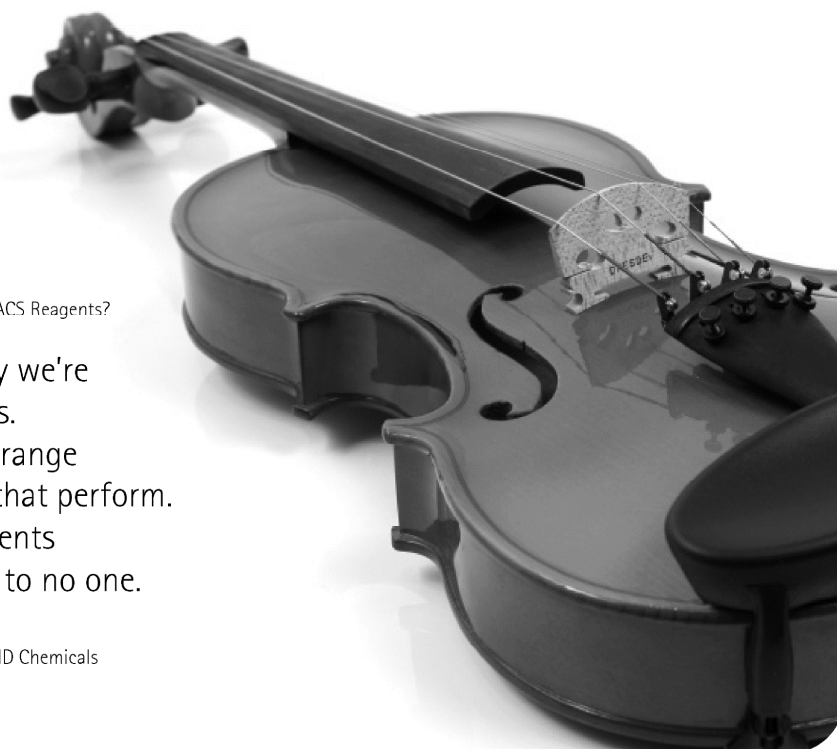
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## US Senate Approves Resolution Designating 2011 the International Year of Chemistry

By unanimous consent, the U.S. Senate adopted a resolution yesterday designating 2011 as the International Year of Chemistry (IYC).

Senate Resolution 283 “recognizes the achievements made in the field of chemistry and the contributions of those achievements to the well-being of humankind...and provides solutions that successfully address global challenges involving safe food and water, alternate sources of energy, improved health and a healthy and sustainable environment.”

“ACS deeply appreciates the U.S. Senate recognizing the importance of chemistry in meeting world needs, in supporting science, technology, engineering and math education, and in promoting economic growth and new jobs for our nation through scientific innovation,” said ACS President Nancy B. Jackson, Ph.D. “ACS is honored the U.S. Senate has brought these issues to a national focus by designating 2011 as the International Year of Chemistry and encouraging the American public to participate in the many programs and activities being held nationwide.”

The International Year of Chemistry resolution was sponsored by Sen. Chris Coons (D-DE).

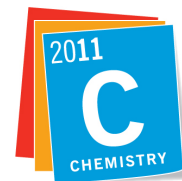
“Chemistry has long been one of the fundamental scientific drivers of

innovation,” said Sen. Coons. “The Senate’s passage of this resolution celebrates the work of chemists around the world to advance the well-being of humankind, and notes the critical contribution science plays to our society. The jobs of tomorrow are being formulated in the labs of today, which is why continued support of advanced research and innovation is so important. As the holder of a chemistry degree and having worked for years at a science-based manufacturing company, I was proud to have led the effort in the Senate to dedicate 2011 as the International Year of Chemistry. I hope this designation encourages more students to choose careers in science and helps motivate the next generation of innovative chemists.”

The resolution was co-sponsored by Sen. Jeff Bingaman (D-NM), Sen. Lisa Murkowski (R-AK), Sen. Mark Pryor (D-AR), and Sen. Debbie Ann Stabenow (D-MI).

“This resolution supports the U.N.’s effort to educate children worldwide on the importance of chemistry,” said Sen. Murkowski. “It also brings recognition to the extraordinary contributions to science by Marie Curie, on the 100th anniversary of her second Nobel Prize.”

IYC 2011 is a global celebration of chemistry and its contributions to the



## International Year of CHEMISTRY 2011

world around us as officially designated by the United Nations. This worldwide initiative is being celebrated under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Union of Pure and Applied Chemistry (IUPAC).

For more information about IYC activities, please visit:

- *365 Chemistry for Life* — profiles of fun, fascinating, groundbreaking chemistry. [www.acs.org/iy2011](http://www.acs.org/iy2011)
- Kids and adults can participate in the IYC Global Water Experiment — [www.acs.org/water2011](http://www.acs.org/water2011)
- International chemistry events — [www.chemistry2011.org/](http://www.chemistry2011.org/)

*Press release courtesy of [www.acs.org](http://www.acs.org). To automatically receive news releases from ACS, contact [newsroom@acs.org](mailto:newsroom@acs.org).*

## CSW to Honor ACS 50-year Members at November Dinner Meeting

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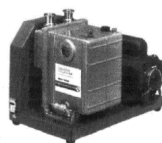
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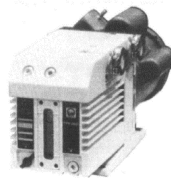
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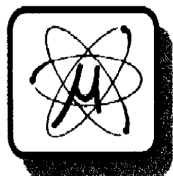
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**Happy Thanksgiving from CSW!**



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## November Chemical Anniversaries

*Leopold May, The Catholic University of America*

**November 6, 1886:** One hundred and twenty-five years ago on this date, Ian M. Heilbron was born. He synthesized naturally occurring compounds, such as vitamins A and D.

**November 8, 1711:** Three hundred years ago on this date Mikhail V. Lomonosov was born. He suggested the law of conservation of mass and a theory of heat as a form of motion. Also, he opposed phlogistic chemistry; and was the first to record the freezing of mercury (Hg, 80).

**November 14, 1807:** One hundred and seventy-five years ago in 1836, Auguste Laurent obtained phthalic acid from naphthalene. Four years before this, he discovered anthracene and in 1841, showed that carbolic acid is phenol. Also, he constructed a saccharimeter; evolved the nucleus theory of organic radicals (with Charles F. Gerhardt), and made Laurent's acid. He was born on this date.

**November 20, 1886:** One hundred and twenty-five years ago on this date, Karl von Frisch was born. He discovered how bees orient and communicate and shared the Nobel Prize in Physiology or Medicine in 1973 with Konrad Lorenz and Nikolaas Tinbergen for their discoveries concerning organization and elicitation of individual and social behavior patterns.

**November 29, 1936:** Seventy-five years ago on this date, Yuan T. Lee was born. He used specially designed mass spectrometer that could separate and identify reaction products. Fifty years ago in 1986, he shared the Nobel Prize in Chemistry with Dudley R. Herschbach and John C. Polanyi for their contributions concerning the dynamics of chemical elementary processes.

**November 30, 1761:** One hundred and fifty years ago on this date, Smithson Tennant was born. In 1803, he discovered iridium (Ir, 77) and osmium (Os, 76) and proved that diamonds are pure carbon.

Additional historical events can be found at Dr. May's website:  
<http://faculty.cua.edu/may/Chemistrycalendar.htm>

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**November 10:** Advancing Your Career as a Woman in the Pharmaceutical/Chemical Industry

**November 17:** The Chemical Keys to Thanksgiving Dinner

**December 1:** How to Secure and Nurture a Vibrant Chemistry Career in the 21st Century



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## CSW Calendar of Events

### November Dinner Meeting

Location: Joe Theismann's  
Restaurant  
Alexandria, VA  
November 17, 2011

### December Dinner Meeting

Location: NASA Goddard  
December 8, 2011

### January Dinner Meeting

ACS Headquarters  
Washington, DC  
January 12, 2012





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The Two-Year College Chemistry Consortium  
of the Education Division of the American Chemical Society  
**The 194<sup>th</sup> 2YC<sub>3</sub> Eastern Conference**

Montgomery College — Rockville Campus  
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8:00 a.m.— 5:00 p.m.

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teaching

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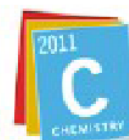
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