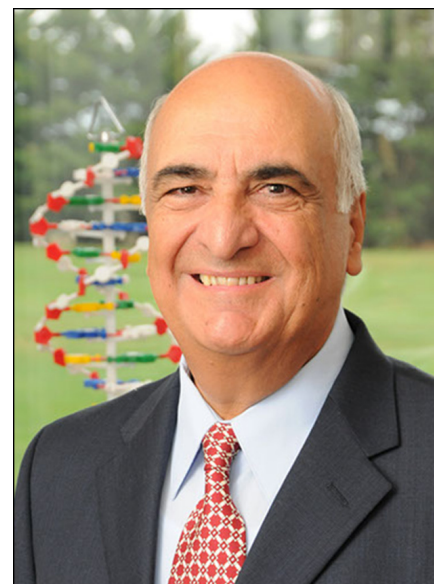


## Miral Dizdaroglu, NIST, to Speak at April Dinner Meeting

Dr. Miral Dizdaroglu, of the National Institute of Standards and Technology (NIST), will speak at the CSW Dinner Meeting on April 12, 2012. His talk is titled, “Oxidatively Induced DNA Damage: Mechanisms, Measurement, Repair and Disease.”

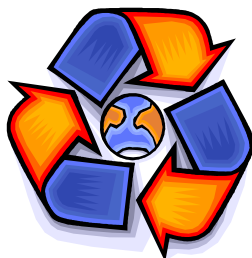
Dr. Dizdaroglu is a Senior Research Chemist and a NIST Fellow at NIST, Gaithersburg, MD. He graduated as a Chemical Engineer from the University of Ankara, Turkey in 1967, and received his Doctorate in Physical Chemistry from the University of Karlsruhe, Germany in 1971. Subsequently, Dr. Dizdaroglu worked at the Max-Planck-Institute for Radiation Chemistry in Mülheim a.d. Ruhr, Germany until 1978. He then moved to the United States and has been at NIST since 1981. His research interests are the mechanisms, measurement, repair and biological effects of DNA damage *in vivo* caused by oxidative stress resulting from cellular oxygen metabolism and exogenous sources such as carcinogenic compounds and ionizing radiations. His work involves the development of methods and standards for the measurement of DNA damage and DNA repair proteins in living organisms by mass spectrometry coupled to gas chromatography or liquid chromatography. Dr. Dizdaroglu has received numerous scientific awards for his work, including the Hillebrand Prize of the Chemical Society of Washington (1989), Silver and Gold Medal Awards of the US Department of Commerce (1993 and 2005), Science Award of the Scientific and Technological Research Council of the Republic of Turkey (1993), and the Samuel Wesley Stratton Award of NIST (2010). He was appointed as “NIST Fellow” in 2006. Dr. Dizdaroglu was also awarded two honorary doctorates (Doctor Honoris Causa) by Nicolaus Copernicus University, Bydgoszcz, Poland (2000) and by Dokuz Eylul University, Izmir, Turkey (2009). In 2008, he was elected to the Turkish Academy of Sciences. His work is highly cited in the scientific literature with 13,700 citations and an *h*-index of 62, to date.



*Speaker Abstract Located on Page 3*

## Chemists Celebrate Earth Day by “Rethinking Recycling”

Earth Day is April 22, 2012 and the Chemical Society of Washington (CSW) will once again participate in Chemists Celebrate Earth Day (CCED) activities. Chemistry is all around us and is vital to our planet’s sustainability. Whether it’s used in the production of recyclable and biodegradable materials or through the reduction of waste, chemistry is involved in ensuring that we can be eco-friendly and kind to our



environment. This year’s theme, “Rethink Recycling—It’s Easy to Be Green!” explores these concepts and gives us the opportunity to highlight many achievements in

the materials field where the transformative power of chemistry is displayed. The CCED publication, *Celebrating Chemistry*, for K-8 grade is available via the ACS website ([www.acs.org/earthday](http://www.acs.org/earthday)).

CSW, in conjunction with the chemistry department from Montgomery College, Rockville Campus will participate in Rockville Science Day on Sunday, April 15, 2012. Volunteers from CSW will be providing hands-on

*...Continued on Page 7*

## The Capital Chemist™



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## THE CHEMICAL SOCIETY OF WASHINGTON PRESENTS: *1110th Dinner Meeting*

Thursday, April 12, 2012

Far East Restaurant  
5055 Nicholson Lane  
Rockville, MD 20852

### Agenda

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

7:00 p.m. Dinner

8:00 p.m. Featured Speaker, Dr. Miral Dizdaroglu, NIST

**COST** \$26.00 Members & guests, \$13 Students

**Menu includes:** Eggrolls, steak on a stick, Far East shrimp, cashew chicken, beef with asparagus, Szechuan string beans, vegetable delight, steamed and fried rice, and tofu with pineapple.

**Reservations:** Make reservations by **Monday, April 9, 2012, 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.**

**Directions:** From I- 270, take Montrose Road exit east; turn right onto 355, then left on Nicholson Lane. From I-495 outer loop, take Exit 34, north on 355, then right onto Nicholson Lane. From I-495 inner loop, take Exit 36, north on Old Georgetown Rd., then right directly onto Nicholson Lane.

**METRO:** White Flint station on the red line




## Speaker Abstract, "Oxidatively Induced DNA Damage: Mechanisms, Measurement, Repair and Disease"

Oxidative stress is produced in cells by oxygen-derived species resulting from cellular oxygen metabolism and from interaction with cells of exogenous sources such as carcinogenic compounds, environmental pollutants, ionizing radiations among others. DNA damage caused by oxygen-derived species, including free radicals is the most frequent type encountered by aerobic cells. This type of DNA damage, called oxidatively-induced DNA damage, produces a multiplicity of DNA lesions. DNA damage is countered in cells by DNA repair, which is a basic and universal process to protect the genetic integrity of organisms. Multiple processes such as base- and nucleotide-excision pathways exist to repair a wide range of DNA damages. If left unrepaired, DNA lesions

can lead to detrimental biological consequences in organisms, including cell death, mutations and transformation of cells to malignant cells. Accurate measurement of DNA damage is essential for understanding the mechanisms of DNA damage, as well as its cellular repair and biological effects. Mass spectrometry coupled to gas chromatography or liquid chromatography using stable isotope-labeled standards is the technique of choice for the accurate measurement of DNA lesions. Over the years, we have developed methods and standards, and applied them for the measurement of DNA damage and repair in living organisms. Our recent work also involves the discovery and measurement of DNA lesions in human urine as potential disease biomarkers. In addition, we

are working on the development of methods and standards for the measurement of DNA repair proteins in human tissues by liquid chromatography-tandem mass spectrometry. Stable isotope-labeled whole proteins are being produced, purified and characterized to be used as internal standards for these measurements. DNA repair proteins are increasingly emerging as important predictive, early detection, prognostic and therapeutic factors in certain diseases, including cancer. Thus, these proteins may be used as potential disease biomarkers. This presentation will focus on the mechanisms, repair and biological effects of DNA damage, as well as on the development of methods and standards for measurements.

<p><b>Innovation, Jobs, Sustainability -The Role of Green Chemistry</b></p>  <p><b>16th Annual</b></p> <p><b>Green Chemistry &amp; Engineering Conference</b></p> <p><b>June 18-20, 2012</b></p>	
<p>Plans are well under way for the 16th Annual Green Chemistry &amp; Engineering Conference, June 18-20 in Washington, D.C. More than 20 session topics have been selected, covering a broad range of green chemistry and engineering topics and initiatives.</p> <p>As an added bonus, this year's conference will host its first job information session, and you won't want to miss it! The American Chemical Society's expert career consultants will provide attendees with a host of pertinent information guaranteed to excel one's professional development. Topics will include: initial planning and résumé preparation, maintaining an effective job search, reviewing employment trends, enhancing professional skills, and more! This event will also be an excellent way for job seekers to enhance their networking skills—free of charge! For information about the event, please visit <a href="http://www.gcande.org">www.gcande.org</a>.</p>	
<p><b>Keynote Speakers:</b></p> <ul style="list-style-type: none"> <li>• Dr. Marcel Wubbolts</li> <li>• Dr. Richard Wool</li> <li>• Dr. Bassam Shkhashiri</li> </ul>	<p><b>Conference Chairs:</b></p> <ul style="list-style-type: none"> <li>• Dr. Michael Lefenfeld</li> <li>• Dr. Roger Sheldon</li> <li>• Dr. Robert Peoples</li> </ul>



## April Anniversaries in Chemistry

April 10, 1887: One hundred and twenty-five years ago, Bernardo A. Houssay was born. He shared the Nobel Prize in Physiology or Medicine in 1947 for his discovery of the part played by the hormone of the anterior pituitary lobe in the metabolism of sugar. The prize was shared with Gerty T. Cori and Carl F. Cori for their research on the hormone of the anterior lobe and its role in the metabolism of sugar, and for discovering how glycogen is catalytically converted.

April 6, 1928: James D. Watson, a researcher on the double helix structure of the deoxyribonucleic acid (DNA) molecule, was born on this date. Fifty years ago, he shared the Nobel Prize in Physiology or Medicine with F. H. C. Crick and M. H. F. Wilkins for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material.

April 14, 1887: The first assembly of the Association des Chimistes Belges (Association of the Belgian Chemists) was held at the La Brasserie Belge in Brussels.

April 19, 1912: One hundred years ago, Glenn T. Seaborg was born on this date. He co-discovered plutonium (Pu, 94) in 1940, americium (Am, 95) in 1944, curium (Cm, 96) in 1944, berkelium (Bk, 97) in 1950, californium (Cf, 98) in 1950, einsteinium (Es, 99) in 1952, fermium (Fm, 100) in 1953, mendelevium (Md, 101) in 1955, nobelium (No, 102) in 1958, and seaborgium (Sg, 106) in 1974. In 1951, he and Edwin M. McMillan received the Nobel Prize in Chemistry for their discoveries in the chemistry of the transuranium elements.

April 20, 1912: One hundred years ago, Gertrude E. Perlmann was born. She did research in protein chemistry and received the Garvan Medal in 1965.

April 20, 1927: Physicist K. Alexander Müller was born on this date. He shared the 1987 Nobel Prize in Physics with J. Georg Bednorz for their important breakthrough in the discovery of superconductivity in ceramic materials.

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

Do you have story ideas for the *Capital Chemist*? Email them to [csw@acs.org](mailto:csw@acs.org)!



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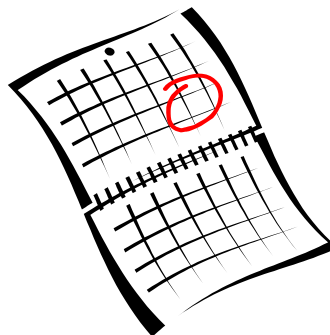
**Save the Date!**  
**Fall ACS National Meeting & Expo**  
**August 19-23, 2012**  
**Philadelphia, PA**

Planning on submitting an abstract for the Fall ACS National Meeting? Final deadlines are approaching!

For a list of deadlines, please visit  
<http://abstracts.acs.org/chem/244nm/meetingview.php?page=division>



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## Retired Chemists Group To Visit Hillwood Estate, Museum & Gardens

On Thursday, April 26, 2012, the Retired Chemists Group (RCG) and others wishing to attend will celebrate Spring and the 100<sup>th</sup> anniversary of the annual National Cherry Blossom Festival with a visit to the famous Hillwood Estate, Museum, and Gardens. Hillwood was founded by Marjorie Merriweather Post, heiress to the Post cereal empire and an avid art collector. The museum features a comprehensive collection of Russian Imperial art, as well as world-renowned eighteenth-century French decorative art and furnishings. Among its many items are Fabergé eggs, Russian Orthodox icons, Beauvais tapestries and Sevres porcelain. Enclosed in an idyllic woodland setting, the Estate provides an oasis of luscious formal gardens, ideal for our docent-led Spring Garden Tour. After the tour, which begins at 10:30 AM, we will proceed to the Hillwood Mansion to view a film about the history of the Estate. This will be followed by a light lunch at the Hillwood Café. The cost for this unique event is \$32 (\$13 for the tour plus \$19 for lunch). Parking is free near the gated entrance to Hillwood, located at 4155 Linnean Avenue, NW, Washington DC, 20008. Handicapped parking is available at the Visitor Center and visitor information can be obtained by telephone (202-686-5807) or from their website, [www.hillwoodmuseum.org](http://www.hillwoodmuseum.org).



*Photo taken by Flickr user Thom Watson*

**Luncheon Menu:** Choices are (1) oven-roasted turkey breast sandwich served with soup or salad and cookies, (2) ham & brie sandwich with soup or salad and cookies, or (3) quiche of the day, with soup of the day or salad and cookies.

**Reservations:** Please send your check for \$32 per person, made out to RCG or Retired Chemists Group, along with your luncheon selection(s), to Dr. Jerome McDonald, 19636 Olney Mill Road, Brookeville, MD 20833. Numbers may be limited, so reservations should be received as soon as possible—no later than Friday, April 6.

### CSW Calendar of Events

#### April Dinner Meeting

April 12, 2012

Far East Restaurant, Rockville, MD

Speaker: Dr. Miral Dizdaroğlu, NIST

#### Rockville Science Day

April 15, 2012

Montgomery College, Rockville Campus

#### Retired Chemists Group Luncheon

April 26, 2012

Hillwood Estate, Museum, and Gardens

#### USA Science and Engineering Festival

April 28-29, 2012

DC Convention Center

*\*\*To volunteer, contact Kim Morehouse,  
kim.morehouse@fda.hhs.gov\*\**



#### Chemathon

April 28, 2012

#### May Dinner Meeting

May 10, 2012

ACS Headquarters, DC

Speaker: Dr. Malcolm Forbes, UNC Chapel Hill

#### ACS Leadership Course

May 12, 2012

ACS Headquarters, DC

#### Green Chemistry and Engineering Conference

June 18-20, 2012

Washington, DC

#### 2012 International Chemistry Olympiad

July 21-30, 2012

University of Maryland

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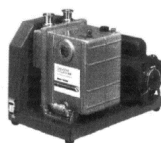
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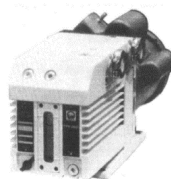
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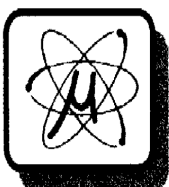
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## SEED student application with financial statement deadline is on May 10, 2012

Project SEED ([www.acs.org/ProjectSEED](http://www.acs.org/ProjectSEED)) gives 'REAL CHEMIST' experience to economically disadvantaged high school students by placing them in a variety of research environments during the summer months. Students should have completed a year of chemistry class by June 2012, and should meet the financial requirements. For more information, contact the CSW Project SEED coordinators, Dr. Walter Benson, [wben-son270@aol.com](mailto:wben-son270@aol.com) or Dr. Ajay Mallia, [vajaymallia@gmail.com](mailto:vajaymallia@gmail.com).

### CCED, cont. from page 1

activities for children who attend the event as a part of CSW's participation in CCED. Volunteers will also hand out copies of the *Celebrating Chemistry* publication for CCED, and various CCED-themed products. If you would like to volunteer for this event, please contact the CSW CCED coordinator, Kim Morehouse at [Kim.Morehouse@fda.hhs.gov](mailto:Kim.Morehouse@fda.hhs.gov).

Additional activities, as they are planned, will be posted on the CSW website, <http://csw.sites.acs.org>.

### From Jennifer Young, Chair of the Environmental Improvement/Sustainability Committee:

I am starting a new Committee on Sustainability, and I'm looking for CSW members to get involved with planning for and participating in activities this year. I have a lot of ideas but I need your help!

If you're interested, please contact me at [jyoung@ils.org](mailto:jyoung@ils.org) or [csw@acs.org](mailto:csw@acs.org).



## Call for Nominations: 2012 Leo Schubert Award

The Leo Schubert Memorial Award recognizes an outstanding teacher of high school chemistry in the Washington, D.C. area. The award was established in 1979 to honor Dr. Leo Schubert, a chemistry professor at American University who devoted much of his career to developing programs for high school teachers and students. The award consists of a \$500 honorarium and a certificate, which will be presented at the December CSW dinner meeting.

Nominations for the award must be comprehensive and include supporting letters as well as details about the nominee's accomplishments in areas such as innovation in teaching, writing curricula, outside teaching, papers published, involvement in science fairs and postgraduate study. A nomination form can be obtained via an e-mail request to [csw@acs.org](mailto:csw@acs.org).

Eligibility: the nominee must teach chemistry at a secondary school in the geographic region of the Chemical Society of Washington, Washington, D.C., which includes neighboring counties in Maryland and Virginia. Please contact the Chair of the Awards Committee, Douglas J. Raber, [draber@verizon.net](mailto:draber@verizon.net), if you have any questions. Completed nominations must be submitted by June 1, 2012.

## It's Time for Chemathon 2012!

The 28<sup>th</sup> Annual Chemathon will take place **Saturday, April 28, 2012**. The Chemathon is an annual chemistry competition for high school chemistry students in Maryland, Northern Virginia, and the District of Columbia. The Chemathon competition is organized by a committee of area high school chemistry teachers and chemists, and is hosted by the Department of Chemistry and Biochemistry at the University of Maryland at College Park. Information about the competition can be found on the Chemathon website (<http://www2.chem.umd.edu/chemathon/>). If you would like more information or to volunteer for this event, please contact Kim Morehouse ([Kim.Morehouse@fda.hhs.gov](mailto:Kim.Morehouse@fda.hhs.gov)).



Pictured above, Hillebrand Prize recipient, Debra Rolison, with CSW President-Elect Doug Raber at the March 2012 CSW Dinner Meeting.

## Register Today for ACS Leadership Course for CSW Members: "Leading without Authority"

The Chemical Society of Washington (CSW) will support up to 20 CSW members, through a mini-grant from ACS, to participate for free in the ACS Leadership Development Course, "Leading without Authority." This is the third course in the series held by CSW since 2009, and past participants have found the courses to be very useful in their professional and volunteer activities.

**Date:** Saturday, May 12, 2012

**Time:** 1:00pm – 5:00pm

**Location:** ACS Headquarters (Marvel Hall), 1155 Sixteenth St, NW, Washington, DC, 20036

**Apply by May 1 to participate for free!** The course will be free for 20 participants selected by CSW, and open for the regular fee to anyone else (\$150 for ACS members, \$300 for non-members). **To apply**, send an email to Jennifer Young ([jyoung@ilsil.org](mailto:jyoung@ilsil.org)) by 11:59 pm on **May 1**, including your contact information, a paragraph explaining how you would benefit from the course, and a short description (bio/CV/resume) including your technical/scientific experience and participation in ACS or CSW activities or other volunteer organizations.



### Context of the Course:

As an experienced leader in a volunteer organization like ACS (or in your professional experience), you know that one of the biggest challenges in leading a project, committee, and local section is that you have no direct authority over the other volunteer members. As a volunteer leader you may have experienced:

- The challenge of having to influence people who have different styles or views
- Needing to get a task force organized and committed to a project but find they aren't cooperating and they're putting up barriers
- Kicking off a new project, knowing what needs to be done but unable to get the buy in and support to carry it out
- The challenge of getting new volunteers to participate because they are too busy with other professional and personal obligations

Leading in an organization comes with many challenges, not the least of which is having no direct authority over the team members. Learn practical tools to help you gain cooperation without formal authority and motivate your colleagues to accomplish important goals.

### After completing this program, you will be able to describe:

- When the use of "influencing skills" is needed, when they're not, and when they will and won't be effective
- How to understand and use the two dimensions of influence: the "business" side and the "relationship" side
- Frameworks to understand what really counts for the people you want to engage, and strategies you can use to help them get what they want
- An approach to establishing and building a relationship of trust with someone whose help you need to get things done in your organization

### Who should participate?

- A new graduate about to enter the workforce
- An up and coming leader
- A developing leader with experience
- A newly-involved CSW member!

For more information or questions, please contact Jennifer Young ([jyoung@ilsil.org](mailto:jyoung@ilsil.org)) or [csw@acs.org](mailto:csw@acs.org).