

# Chesapeake Chemist

*Maryland Section  
American Chemical  
Society*



## **Electron Paramagnetic Resonance (EPR) Imaging of Brain Oxygen: Applications for Stroke**

**Gerald M. Rosen, Ph.D., J.D.**  
Department of Pharmaceutical Sciences  
University of Maryland School of Pharmacy

Wednesday, December 8th – 6:30-9pm – University of Maryland, Baltimore

## ACS Maryland Section - Officers and Committee Chairs

### Section Officers:

*Chair 2010* - Alvin Kennedy, Morgan State University, (443) 885-3115; [alvin.kennedy@morgan.edu](mailto:alvin.kennedy@morgan.edu)

*Vice-chair (chair 2010)* - vacant

*Chair-elect (chair 2011)* - Takashi Tsukamoto, Johns Hopkins Medical Institutions, 410-614-0982, [ttsukamoto@jhmi.edu](mailto:ttsukamoto@jhmi.edu)

*Secretary* - Lance Baird, Johns Hopkins Applied Physics Lab, 301-395-7168, [lance.baird@jhuapl.edu](mailto:lance.baird@jhuapl.edu)

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### Councilors:

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### Committee Chairs:

*Student Awards (April)* - George Farrant - (410) 455-4120; [garrant@yahoo.com](mailto:garrant@yahoo.com)

*MD ACS Student Grants* - Paul Smith, [pjsmith@umbc.com](mailto:pjsmith@umbc.com)

or Louise Hellwig, [Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu)

*Remsen Award (May/June)* - Dana Ferraris; [Dferrar2@jhmi.edu](mailto:Dferrar2@jhmi.edu)

*Braude Award (October)* - Louise Hellwig, [Louise.Hellwig@morgan.edu](mailto:Louise.Hellwig@morgan.edu), 443-885-2085

*Maryland Chemist Award (December)* - Angela Sherman - (410) 532-5713; [ASherman@ndm.edu](mailto:ASherman@ndm.edu)

*Maryland Service Award* - Shree Iyengar - (410) 777-2266; [ssiyengar@aacc.edu](mailto:ssiyengar@aacc.edu)

### Programs:

*Archives* - Ernie Silversmith - (443) 885-3214

*Career Planning* - Linh Cheong - (410) 762-1159

*Earth Day* - Paul Smith, Lance Baird  
([Lance.Baird@jhuapl.edu](mailto:Lance.Baird@jhuapl.edu))

*Environmental Issues* - Shirish Shah - (410) 704-2720  
[sshah@towson.edu](mailto:sshah@towson.edu) & Lance Baird

*Finance Committee* - Jan Kolakowski - (410) 436-2755  
[jan.kolakowski@us.army.mil](mailto:jan.kolakowski@us.army.mil)

*Government Relations* - Shirish Shah & Robert von Tersch - [robert.l.vontersch@us.army.mil](mailto:robert.l.vontersch@us.army.mil)

*Long Range Planning* - Shekar Munavalli

*MARM* - Shirish Shah & Paul Smith

*Membership* - Merle Eiss

*Public Relations* - Shirish Shah & Walter Roy,  
[Walter\\_Roy@mccormick.com](mailto:Walter_Roy@mccormick.com)

*Retired Chemists* - Alvin Bober, [abober@verizon.net](mailto:abober@verizon.net),  
410-581-5321

*Student Affiliate Liaison* - Louise Hellwig

*Women Chemists/Younger Chemists* - Sara Narayan -  
443-334-2326 / Amanda (Miller) Idstein -  
[aredmiller@cs.com](mailto:aredmiller@cs.com)

### 2011 Elections Committee:

**Chair** - Sandy Young ([sandra.young@us.army.mil](mailto:sandra.young@us.army.mil))

**Members** - Takashi Tsukamoto, David Roswell, Frank Switzer, Dana Gasiorowski

### Educational Programs:

*Chemistry Olympiad/Chem-a-Thon* -  
Shirish Shah & Mike Zapf,  
[Mike\\_Zapf@mccormick.com](mailto:Mike_Zapf@mccormick.com)

*Continuing Education/High School Education* -  
Shirish Shah/Ellen Pisciotta

*Kids & Chemistry/Chemistry-in-the-Library* -  
Sue Procell, 410-436-4604,  
[suzanne.procell@us.army.mil](mailto:suzanne.procell@us.army.mil) /Sandy Young

*National Chemistry Week (NCW)* -  
Shirish Shah & Sandy Young

**Maryland Section on the Web:** <http://mdchem.org>

*Webmaster* - Greg Delahanty ([contact-us@mdchem.org](mailto:contact-us@mdchem.org))

*E-issues team:* Mike Zapf, Frank Switzer, Sandy Young

### Chesapeake Chemist Editor-in-Chief:

Takashi Tsukamoto ([contact-us@mdchem.org](mailto:contact-us@mdchem.org))

**Have a job to post?, a good news chemistry story? - contact the Maryland Executive Committee through e-mail via: ([contact-us@mdchem.org](mailto:contact-us@mdchem.org)).**

## Electron Paramagnetic Resonance (EPR) Imaging of Brain Oxygen: Applications for Stroke

Wednesday, December 8th – 6:30-9:00 pm  
University of Maryland School of Pharmacy  
20 N. Pine Street Baltimore, MD 21201

6:30 – 7:00 pm	Registration / Networking / Light Refreshments
7:00 – 8:00 pm	Award presentation Dr. Rosen's lecture
8:00 – 9:00 pm	Hot hors d'oeuvres & refreshments
Price	\$20 - ACS members and Guests; \$10 – students and postdocs
RSVP (by 12/6)	Dr. Shirish Shah at <a href="mailto:sshah@towson.edu">sshah@towson.edu</a> or (410) 704-2720

### Speaker Bio:



#### **Gerald M. Rosen, Ph.D., J.D.**

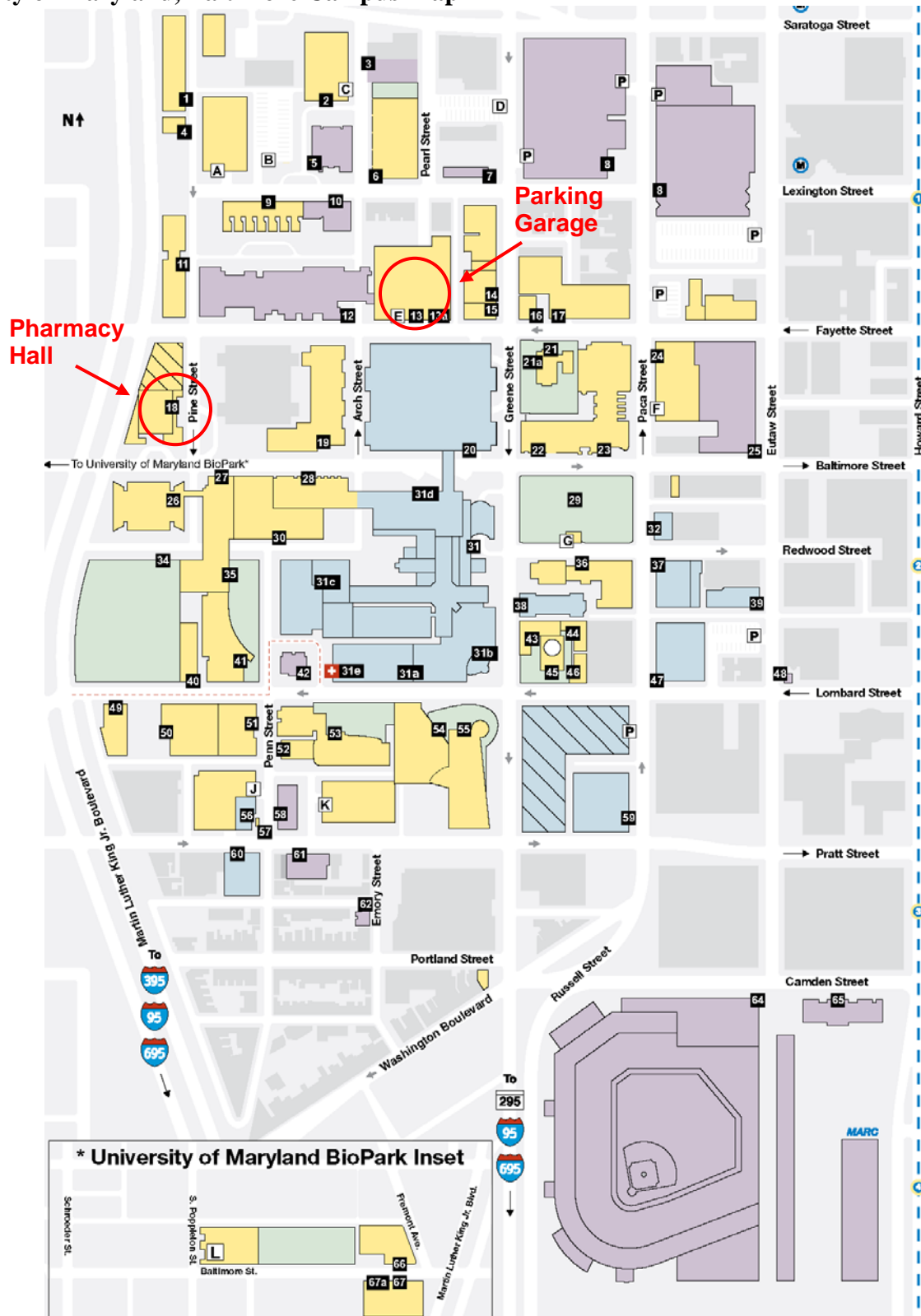
Isaac E. Emerson Professor  
Department of Pharmaceutical Sciences  
University of Maryland School of Pharmacy

Dr. Gerald Rosen is the Isaac E. Emerson Professor at University of Maryland School of Pharmacy. Dr. Rosen obtained his BS degree from Lowell Technological Institute. He obtained his Ph.D. in Organic Chemistry from Clarkson College of Technology. Dr. Rosen also holds a J.D. degree from Duke University School of Law. Dr. Rosen has devoted his career to the synthesis of nitroxides, as probes to study physiologic function of biological systems. In the early 1980s, Dr. Rosen was one of the first scientists to synthesize nitroxides as MRI contrast media and conduct *in vivo* pharmacokinetic and MR imaging studies with these contrast agents. Over the past twenty years, he has published a number of important papers on the development of nitroxides, specifically targeted to study important physiological parameters.

#### **Abstract:**

*In vivo* electron paramagnetic resonance imaging (EPRI) using nitroxides is an emergent imaging method for studying a number of important physiological parameters, such as visualizing O<sub>2</sub> distribution in various tissues. Such imaging capabilities would allow O<sub>2</sub> mapping in tumors, different brain regions following a hypoxic episode or administration of drugs of abuse. The difficulty in studying physiology by EPR is the synthesis of nitroxides that can be directed to specific tissue sites and once there, these spin labels can define specific physiological parameters. In this seminar, I will discuss approaches used in my laboratory to design and synthesis the spin probes, as reporters of specific physiologic parameters.

# University of Maryland, Baltimore Campus Map



For directions to the School of Pharmacy on the University of Maryland, Baltimore campus, please visit: <http://www.umaryland.edu/map/>

Parking is available in the Pearl Street Garage at 622 W. Fayette Street. The rate for the evening will be \$8.

## Help needed for coordinating the Chemistry Olympiad Program

The MD Section is looking for a coordinator for the International Chemistry Olympiad program. Activities will begin in February 2011. The tasks require an initial mailing to solicit participation, coordinating the exam site and timing (3<sup>rd</sup> Saturday in April), and communications before and after with the selected students, teachers and the ACS National staff. Assistance from the current committee will be given and a budget is approved. The Section has been involved with this program for more than 26 years and we've had several students attend the Olympic training camp and had two Olympians during this time.

For further information, please contact Mike Zapf or Shrish Shah; [mike\\_zapf@mccormick.com](mailto:mike_zapf@mccormick.com), [sshah@towson.edu](mailto:sshah@towson.edu).

## Applications are Being Accepted for the 2011 Undergraduate Student Travel Awards

Students can apply to receive up to \$500 for travel and expenses to attend a National ACS Meeting or up to \$300 to attend a Regional ACS Meeting. Open to undergraduate student affiliates of the ACS who are enrolled full time in a college or university in the Maryland Section.

The application should include:

- The meeting you plan to attend along with location, dates
- An estimated budget (cost for travel, registration, lodging, and meals)
- A 250 word essay describing your motivation for attending the meeting (if you plan to present, include a brief description of the work to be presented)
- A letter of support from a faculty member in your department

Review of applications will begin January 15<sup>th</sup> but will continue through the year until all funds are utilized. Applications should be mailed to: Dr. Louise Hellwig, Morgan State University, Department of Chemistry, 1700 Cold Spring Lane, Spencer Hall Rm. 318B, Baltimore, MD 21251 or sent via e-mail: [louise.hellwig@morgan.edu](mailto:louise.hellwig@morgan.edu)



Join us on meetup.com to keep up with Section Events (dates for meetings), Discussion Boards (including job postings), photos from events & more!

(Meetup is FREE for individual members and does NOT require you to post your general information beyond your name.)

<http://www.meetup.com/Maryland-American-Chemical-Society/>



## K-12 Educational Outreach

We know that people have limited time. But taking the time to mentor others, as all of us were once mentored by someone, is a truly fulfilling experience. If you have any questions or are thinking about helping out with a future event, please feel free to contact us at ([contact-us@mdchem.org](mailto:contact-us@mdchem.org)).

### **Plants & People Sundays at the Rawlings Conservatory**

The Howard Peters Rawlings Conservatory & Botanic Gardens in Druid Hill Park runs various programs on Sundays. The 2<sup>nd</sup> (Exploration Station), 3<sup>rd</sup> (Story Hour), and 4<sup>th</sup> (Ask a Scientist) Sundays are programs directed towards K-12 students and often include hands-on science activities.

**Where:** Howard Peters Rawlings Conservatory & Botanic Gardens, 3100 Swan Drive, Baltimore, MD 21217 (by the zoo)

**When:** Almost every Sunday

For more information, visit their website or call (410) 396-0008 for details on the upcoming Sunday program!! ([http://www.baltimorecity.gov/government/recnparks/special\\_facilities.php#Howard](http://www.baltimorecity.gov/government/recnparks/special_facilities.php#Howard))

### **Other Educational Outreach Programs**

With recognition of the decreasing numbers of trained STEM professionals that are US citizens, the general decline of hands-on activities in Science, Technology, Engineering, and watering-down of Mathematics in many K-12 programs, and many people's general lack of understanding of STEM topics in society, the Department of Defense has coordinated many of their programs into single websites that contain a wide-range of educational outreach programs, internships, and scholarship opportunities available for K-12, undergraduate, graduate students and beyond.

Information on the wide-variety of programs through the **US Army Educational Outreach Program (AEOP)** can be found on their website (<http://www.usaeop.com>).

Information on the wide-variety of programs through the **National Defense Education Program (NDEP)** can be found on their website (<http://www.ndep.us>).

Many of the programs/opportunities that are listed on these two sites are available to students for participation in Maryland locations.

## Job Hunting Corner

### Job Hunting?

We don't always have job posts in the Chesapeake Chemist. But if you have a position available locally, you are welcome to send them to us for posting in the Chesapeake Chemist. If you are job hunting, remember to put your membership to work by using the ACS job bank: (ACS Careers: [www.acs.org/careers](http://www.acs.org/careers)).

### ACS offers special benefits for unemployed members

During these tough economic times it's more important than ever to belong to the American Chemical Society. Unemployed members can tap into a host of valuable benefits and services that help them get back in the workforce. And, members in good standing may qualify for an unemployed member dues waiver, allowing them to renew their memberships and keep their member benefits at no cost. Contact ACS at [service@acs.org](mailto:service@acs.org), 800-333-9511 or 614-447-3671 for complete details.

Other valuable benefits that help ACS member get back in the workforce include:

- Free registration at ACS National Meetings and registration fees at Regional Meetings of just \$25. Meetings offer ACS Career Fairs with on-site interviews.
- Special discounts for ACS/Harvard courses, ACS ProSpectives and Short Courses, and the ACS Leadership Development System.
- Membership in the ACS Network, your online resource to connect and communicate with friends, colleagues, and potential employers
- Free Guidance from ACS Career Consultants - ACS mentors offer resume reviews, job search strategies, and interview tips that make you stand out from the rest.
- Free access to InterviewStream, an online tool that will sharpen your interview skills
- Members-only access to the ACS Salary comparator.
- And more!

Contact ACS customer service today at [service@acs.org](mailto:service@acs.org), 800-333-9511 or 614-447-3671 today and let us know how we can help.

### REMINDER: Receiving the Chesapeake Chemist

Hopefully, if you are reading the Chesapeake Chemist this month, you are receiving it via e-mail from us. We went to electronic only mailings to our MD ACS membership in October 2006. Please remember that we are dependant on the National ACS records for your correct, current e-mail.

**Changing your e-mail address? Moving out of the MD ACS area?** E-mail changes can be updated either by:

- E-mailing us at [contact-us@mdchem.org](mailto:contact-us@mdchem.org) - give us your member #, full name, and e-mail changes and we can ensure that your records are updated with National ACS.
- **Contacting the National ACS membership division: 800-333-9511 (US only) or [service@acs.org](mailto:service@acs.org)**

To ensure that you receive the Chesapeake Chemist, please add the MD ACS e-mail ([contact-us@mdchem.org](mailto:contact-us@mdchem.org)) to your accepted e-mail address list IF you have a spam filter.

If you are a member who currently doesn't receive the Maryland ACS Chesapeake Chemist but download it from our website, it is possible that National ACS does not have your e-mail address on file. If you want to receive the Chesapeake Chemist via e-mail, please e-mail us at [contact-us@mdchem.org](mailto:contact-us@mdchem.org) - give us your member #, full name, and e-mail address and we can ensure that your records are updated with National ACS.

The current edition and previous editions of the Chesapeake Chemist can ALWAYS be obtained via our website: <http://mdchem.org> - please see the Newsletter Archive link on the right-hand side of the website.

### **Call for Volunteers for Committee Positions**

Interested in how your dues get used and want to work on interesting member programs/projects? If you want to get involved with the Maryland Section Executive Committee and/or with section activities, we want to hear from YOU! The Maryland ACS Executive Committee meets 4 times during the year to discuss and plan activities. Please feel free to contact the chair, vice-chair, or chair-elect via e-mail to get more information on various areas/activities that you are interested in or that we would like to start or expand in the future. The amount of time to commit would be up to you but might be around 2 hours per month, depending on the activity. We are always looking for individuals with budget/financial, editing, and planning skills.

Our Section is always looking for volunteers for our various committees. We are currently looking to fill positions for:

- Archivist
- Women's Chemist Chair
- Young Chemist Chair

Please contact **Walter Roy** ([Walter\\_Roy@mccormick.com](mailto:Walter_Roy@mccormick.com), 410-771-7886) or **Alvin Kennedy** ([alvin.kennedy@gmail.com](mailto:alvin.kennedy@gmail.com), 443-885-3794)

### **Get Involved, Stay Involved**

As you know, the American Chemical Society offers many ways for its members and non-members to get involved at the local, regional and national levels. There are opportunities for everyone, whether you are a student, or just starting your career, or a seasoned professional. Are you interested in getting involved, but don't know where to start? Are you already involved with one or more ACS activities but need help finding resources? Please visit (<http://www.acs.org/getinvolved>) to find a streamlined list of links of helpful procedures and resources specifically geared towards your area of interest.

Alternately, you can contact the Maryland ACS Section directly... Like working with students? Have a talent for encouraging students in science? Have ideas for outreach events? Sign up for our volunteer news. Contact us at [contact-us@mdchem.org](mailto:contact-us@mdchem.org).





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