

The Blue Ridge Chemist

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Roanoke Hosts the February Meeting

<http://www.acs-vbrs.org>

VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

669th SECTION MEETING

Roanoke College

Thursday, February 26, 2015

PROGRAM:

- 5:30-6:00 Social Time, Pickle Lounge in the Colket Center
- 6:00-7:00 Dinner, Go through the line in the Commons--
then bring food to Pickle Lounge
- 7:00-8:00 Talk, Massengill Auditorium

The dinner will take place in the Pickle Lounge of the Colket Center at Roanoke College. The talk will be in Massengill Auditorium. The speaker will be Dr. Jim Rancourt. His talk is titled "Forensic Analysis of Fish Fillets".

For dinner we will be going through the cafeteria line bringing trays back to the Pickle Lounge. The usual menu includes two entrees, a salad bar, various sides and other items, with desserts and ice cream. Cost for the dinner will be \$9.50 for everyone.

Reservations for the dinner must be made by FRIDAY, FEBRUARY 24, (3 DAYS BEFORE THE MEETING) by contacting Debbie Duncan at 540-375-2441, or by e-mail to duncan@roanoke.edu, or by mail to Debbie Duncan, Department of Chemistry, Roanoke College, Salem, VA 24153.



Dr. Jim Rancourt, Polymer Solutions

James Rancourt, Ph.D. (Jim) is a Massachusetts native who received his B.S. in Chemistry from the University of Lowell. After gaining industry experience he relocated to Blacksburg, Virginia where he earned his Ph.D. in Polymer Chemistry from Virginia Tech. He finished his Ph.D. while simultaneously starting Polymer Solutions Incorporated (PSI) in 1987. Jim has grown PSI through complimenting his passion for helping others with his love of analytical chemistry. He has built a team of brilliant scientists and support staff which, coupled with the practice of great science, has resulted in PSI becoming the premier independent testing lab for plastics, polymers, rubbery, and metallic materials. PSI serves companies in a broad range of market segments including the Medical, Pharmaceutical, Packaging, and Consumer Product industries. PSI's clients range from the largest companies to small and promising innovative startups. Jim is recognized as an authority in his field and is frequently called on to provide expert testimony for a myriad of litigated matters involving manufacturing defects, design defects, misappropriation of trade secrets, failure analysis investigations, and patent infringement. He

has given over 55 presentations, holds 7 United States patents, and has been published over 60 times. Jim was also recently inducted into the Virginia Tech Entrepreneurial Hall of Fame. You can read an in-depth article about Jim's background, recent award, and Polymer Solutions [here](#).

When Jim isn't busy at Polymer Solutions he enjoys running, biking, and spending time with his family--especially his grandchildren!

Forensic Analysis of Fish Fillets

The specialized disciplines of chemistry are very diverse and it is marvelous how chemistry is able to benefit society and the environment in so many different ways. Analytical chemistry techniques and instrumentation, coupled with experience and expertise, are able to provide valuable insights toward understanding situations and solving problems. This presentation will describe a legal case involving an elderly man who ingested a sharp shard of plastic and sustained significant internal injuries. At the crux of the case was the identification of the plastic material, identifying potential sources of the plastic, and understanding the relationship between the food preparation environment and the physical characteristics of the plastic. A variety of analytical tools was applied to this project to determine who was at fault and may be held responsible for a \$5,000,000 verdict.



ACS News Service Weekly PressPac: Nov 19 2014

"Blueberry Effects on Dark Vision and Recovery after Photobleaching: Placebo-Controlled Crossover Studies"

Journal of Agricultural & Food Chemistry

Blueberries are super stars among health food advocates, who tout the fruit for not only promoting heart health, better memory and digestion, but also for improving night vision. Scientists have taken a closer look at this latter claim and have found reason to doubt that the popular berry helps most healthy people see better in the dark. Their report appears in ACS' *Journal of Agricultural & Food Chemistry*.

Wilhelmina Kalt and colleagues note that studies published decades ago provided the first hints that blueberries might improve people's night vision. Later lab experiments appeared to shore up these early findings. For example, anthocyanins, which are pigment molecules in blueberries and other plants, encourage the regeneration of key molecules in the eye involved in perceiving light. But reviews of the earlier clinical research that tested the effect of blueberries on night vision in human subjects revealed that the studies were poorly controlled. Kalt's team wanted to revisit the matter with a new set of carefully designed experiments.

The researchers found that a blueberry-supplemented diet did not improve sight in the dark, but they did help subjects recover normal vision after exposure to a bright light. The enhancement, however, was small and not likely noticeable to most healthy people, the researchers concluded. But they added that anthocyanins might improve visual health among people who have existing eye disorders, though this remains to be demonstrated with well-designed studies.

The authors acknowledge funding from [Agriculture & Agri-Food Canada](#) and the [U.S. Highbush Blueberry Council](#).

The Virginia Blue Ridge Section of the American Chemical Society is sponsoring the twenty-first Annual Undergraduate/High School Poster Session as a part of the April 8, 2015 meeting at Radford University. Poster boards will be provided.

If you have a student or students, who will be participating, submit the following information by email to Chris Hermann (chermann@radford.edu) by April 2, 2015. **This is a firm deadline. No poster submissions will be accepted after this time.** All students and faculty will get email confirmation. If you did not get an email reply, then your submission was not received and you cannot present.

Name of Project _____

Name(s) of Student(s): _____

Affiliation (name of high school, college, or university):

Class of Student(s) (freshman, sophomore, junior, senior): _____

Student(s) email address: _____

Advisor's Name, Address, Telephone Number, and email

address: _____

48" by 48" poster board with tripod on table or just table will be provided.

Please specify what you need.

_____ poster board with tripod on table

_____ table needed

Directions to Roanoke College

From I-81 take exit 140 (Route 311) and go south into Salem, on Thompson Memorial Drive. Turn right onto Peery Drive to enter the campus. You may park in one of the lots ahead, which are near the Colket Center, or you may take High Street, Clay Street, and Market Street to park near Massengill. For disability access routes, please contact Ben Huddle or Gary Hollis. The talk is in Massengill Auditorium, with the dinner in the Pickle Lounge of the Colket Center.



Map of Roanoke College

Non-Prof. Org.
U.S. Postage
PAID
Lynchburg, VA 24502
Permit No. 493

1B3005

c/o Nancy Richardson, Editor
for VA Blue Ridge Section, American Chemical Soc.
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Lynchburg, VA 24515

Return Service Requested

The next meeting will be held on March 18 at the Roanoke Valley Governor's School. Further details will be announced in the next issue of the Blue Ridge Chemist.