

The Blue Ridge Chemist

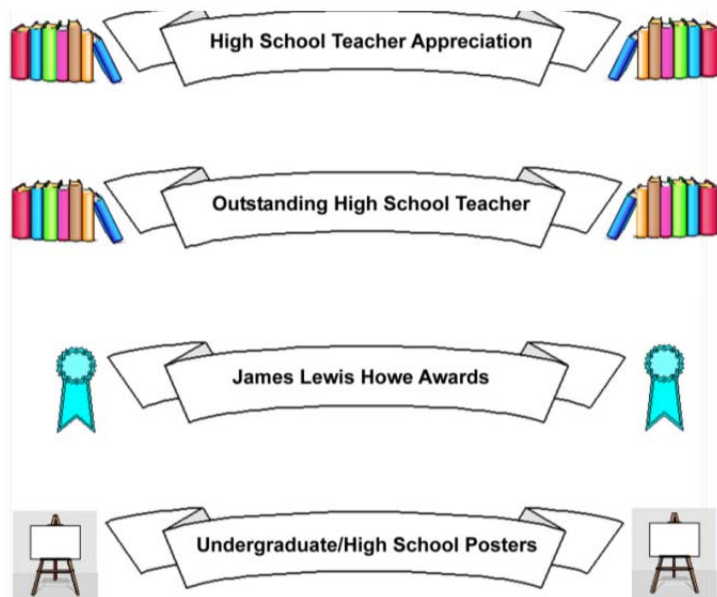
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Radford University Hosts the April Meeting

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

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VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

693rd SECTION MEETING

Radford University

Friday, April 20, 2018

PROGRAM:

5:30-6:45 Social Hour & Poster Session, Center for the Sciences

7:00-7:15 Awards Ceremony, McGuffey 203

7:15-8:15 Keynote Presentation, McGuffey 203

The meeting will begin with a Social Hour and Poster Session in the **Radford University Center for the Sciences**. Heavy hors d'oeuvres will be served during the poster session in place of dinner. The Awards Ceremony and the Keynote Presentation will be held in **McGuffey Hall Room 203**. McGuffey Hall is about 5 minutes' walk from the Center for the Sciences.

There is no charge for hors d'oeuvres, but an RSVP is requested by Friday, April 13, **seven days** before the meeting, by phoning Laura Angell at (540) 831-5515 (during business hours) or by email to languell@radford.edu, so that we can plan quantities.



More maps and directions are on p. 12.

Keynote Speaker: Dr. Donna J. Nelson
Professor of Chemistry, University of Oklahoma
President of the American Chemical Society for 2016



**The Science of Breaking Bad:
A Look Behind the Hollywood Screen**

As science advisor of the hit TV series *Breaking Bad*, Dr. Nelson will speak about her experiences in Hollywood and how the world of science and film connect. She will reveal how science-related information behind the show was crafted in order to support the actors and engage the public. Dr. Nelson also will discuss her interactions with script writers and her insights into the roles of science advisors in television and film production.

Dr. Nelson received her PhD in organic chemistry in 1980 from the University of Texas. Her research has focused most recently on single-walled carbon nanotube (SWNT) functionalization, especially SWNT-biomolecule conjugates. Dr. Nelson is also involved in developing America's scientific readiness, a broad area of study in which she focuses on classroom innovations, on correcting organic chemistry textbook inaccuracies, on ethnic and gender diversity in research universities, and on improving the image and presentation of science and scientists to the public. Dr. Nelson was named an ACS Fellow in 2010 and served as President of the American Chemical Society in 2016.

James Lewis Howe Awardees for 2018

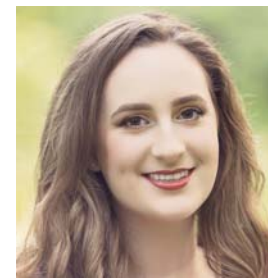
Amy Lusk

Concord University

Hometown: Mullens, West Virginia

Degree: B.S. Chemistry, Pharmacy Option

Honors: Outstanding Organic Chemistry Student Award, Concord Presidential Scholarship, member of Sigma Zeta.



Joshua Caleb Sanders

Ferrum College

Hometown: Rustberg, Virginia

Degree: B.S. Chemistry

Honors: Who's Who Among College Students, Lambda Sigma, Boone Honors Program, Ferrum College Ambassador.



Daniel Reddy

Liberty University

Hometown: Halifax, Virginia

Degrees: B.S. Chemistry and B.S. Health Promotion (Clinical).

Honors: LU Valedictorian Scholarship, 1st Place in Oral Session at LU Research Week, DOE Internship (SULI), member of ACS, Kappa Mu Epsilon, Tau Sigma, and Alpha Lambda Delta.

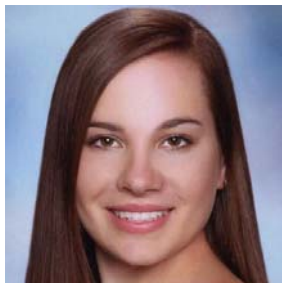


CarolAnne Bekus

Lynchburg College

Hometown: Hillsborough, Virginia

Degree: B.S. Biology; B.A. Chemistry



Honors: Schewel Research Grant, Princeton Agricultural Leadership Award, Society of Westover Fellows (LC Honors Program), ODAC All-Academic Team, ODAC All-Academic Individual. Member of Phi Eta Sigma, Phi Kappa Phi, Beta Beta Beta, Chi Alpha Sigma, and ACS.

Sarah Kathryn Struble

Hollins University

Hometown: Williamsburg, Virginia

Degree: B.S. Chemistry



Honors: ACS Undergraduate Analytical Chemistry Award, Judith Gregory Smith Award.

Alexandra Lynne Hawks

Radford University

Hometown: Pearisburg, Virginia

Degree: B.S. Chemistry



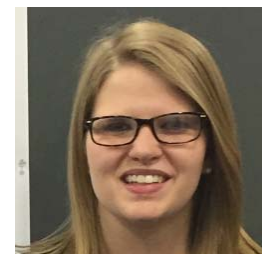
Honors: Member of Phi Kappa Phi and ACS (SAACS President)

Emily Searles

Roanoke College

Hometown: Warsaw, North Carolina

Degree: B.S. Chemistry and Political Science



Honors: Member of Pi Sigma Alpha and ACS.

Drucilla Williams

Randolph College

Hometown: Trelawny, Jamaica

Degree: B.S. Chemistry



Honors: Chemistry Department Award, Outstanding Contributor to Intercultural Awareness Award, Community Fellow, Student Government Senator. Member of Pan-World and Iota Sigma Pi.

McKenzie M. Raber

Virginia Military Institute

Hometown: Virginia Beach, Virginia

Degree: B.S. Chemistry



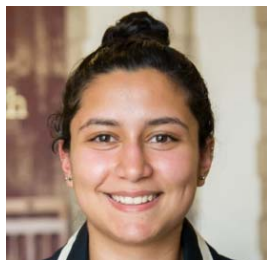
Honors: Three-Legged Stool Award, Biochemistry Award, Ralph Bowen Linville Award, Institute Honors Scholar, member of Gamma Sigma Epsilon.

Amina Rahimi

Virginia Tech – Biochemistry

Hometown: Burke, Virginia

Degree: B.S. Biochem. and Microbiology



Honors: Goldwater Scholarship; VT-COS Dean’s Rising Senior Scholarship; Rachael Hill Memorial Scholarship; NIH-IMSD Fellowship; Fralin Research Fellowship; William B. Downey Memorial Scholarship; ACC Innovation and Creativity Grant; William E. Newton Scholarship, VT Study Abroad Scholarship; Co-Chair of VT Experiential Learning Committee; Ambassador and Advisory Board for VT Office of Undergraduate Research.

Rebecca Engler

Virginia Tech – Chemical Engineering

Hometown: Hockessin, Delaware

Degree: B.S. Chemical Engineering



Honors: Frederick Grant Scholarship, Donald Cox Scholarship, Ronald Lohr Memorial Scholarship, Diamond State Scholarship, James and Jane Gary Scholarship, member of AIChE.

Donald Clark III

Virginia Tech – Chemistry

Hometown: Virginia Beach, Virginia

Degree: B.S. Chemistry



Honors: Second Place in 2016 Undergraduate Research Poster Symposium, Walter B. Ellett Foundation Scholarship, Chemistry Friends Endowed Scholarship, Summer Undergraduate Research Scholarship, Julius P. Bilisoly Scholarship.

Mallory Stephenson

Washington and Lee University

Hometown: Fincastle, Virginia

Degree: B.S. Biochem.; B.A. Psychology



Honors: W&L Psychology Departmental Award; Brackett Priddy Prize; James K. Shillington Scholarship; Luther SeEVERS Birely Scholarship; James D. Davidson Scholarship; James McDowell Scholarship; ACS Analytical Chemistry Undergraduate Award; James Holt Starling Award, J. Brown Goehring Sophomore Award, Phi Beta Kappa, member of ASBMB.

Dr. James Lewis Howe, 1859-1955



James Lewis Howe was for many years Professor of Chemistry and Head of the Department at Washington and Lee University. As one of the most distinguished chemists in the Blue Ridge Section, we have chosen to name our annual awards to outstanding students in his memory.

Howe was born in Newburyport, Massachusetts in 1859; this is the same year in which Svante Arrhenius was born, and during Howe's professional career he was to know many of the famous early chemists, such as Liebig, Wohler, Bunsen, and many others. He attended Amherst College, where he pursued his favorite subjects of chemistry, German, and religion. He was selected to deliver the graduation address on the subject of "The Scientific Method and Religion".

Howe earned his M.S. and Ph.D. degrees at the University of Gottingen, and published his first scientific papers on the subject of aromatic carbon chemistry. He then began an intensive literature search of the platinum metals, beginning a bibliography for which he was to become world famous. He decided that the most interesting and least known metal of the group was ruthenium.

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In 1883 How married Henrietta Leavenworth Marvine of Scranton, Pennsylvania. This marked the beginning of a marriage of 60 years duration. The Howes became the parents of two daughters and a son (who was also a chemist). After Mrs. Howe's death in 1944, one of his daughters, Guendolen Howe, became her father's constant companion.

Dr. Howe's teaching career began at Brooks Military Academy in Cleveland, Ohio. From there he went to Central University in Richmond, Kentucky, where he was Professor of Chemistry (and later Physics and Geology as well). In 1894 he accepted the Chair of Chemistry at Washington and Lee University, and for almost half a century he was at that institution.

It was at W&L that Howe began his intensive bibliographic study of the platinum group and his outstanding research on the element ruthenium. In 1917 he was appointed chairman of a special subcommittee on platinum of the National Research Council. His work led to the development of platinum alloys, and averted a potentially crucial shortage in platinum, threatening our efforts during World War I. He later received several presidential commissions dealing with the platinum metals.

Dr. Howe was beloved by his students and colleagues at W&L. For the first fifteen years he was a one person department. His lectures were informal, but completely up to date. He was known for his extreme congeniality, charming personality, mild manner, and even temper. He was unceasingly helpful, and believed that more could be learned in the laboratory than from lectures.

Dr. Howe's unflagging energy found him serving in many capacities outside the scientific field. He was an Elder of the Lexington Presbyterian Church, an active Mason, and held positions in the Town Council in Lexington and the People's National Bank of Lexington.

Outstanding High School Teacher Awardee



Steve Smith

Steve Smith is a teacher at the Roanoke Valley Governor’s School, where he teaches first-year chemistry, AP chemistry, and the research elective course, Applied Chemical Research. He is currently in his 26th year of teaching.

After earning his bachelor’s degree, Smith worked for ten years as an electron microscopist, first at the Naval Research Lab in DC and then at the Alcoa Research Center in PA. During this time he authored or co-authored of ten published research articles.

Liking his work, but desiring a more scholastic atmosphere, Smith decided to become a teacher. After getting his Master of Arts degree (in teaching), he worked at three other high schools before coming to the Governor’s School in September of 2002.

Smith is grateful to teach at a school that sets aside one month each year for students to perform a research project that they designed. In his 16 years at RVGS, he has had four students qualify for the International Science and Engineering Fair (including one this year), along with many more who have qualified to go the Virginia State Science and Engineering Fair.

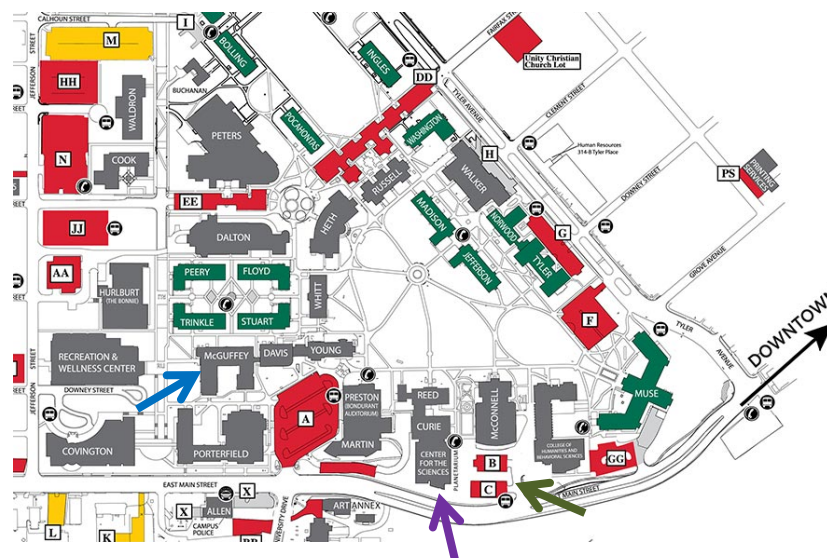
Mr. Smith is a father of two, and a grandfather of one. In his spare time, he likes to read, do woodworking, hike, lift weights, and spoil his granddaughter.

Directions to Radford University

Directions: Take I-81 to exit 109 and follow Route 177 (Tyler Ave) to Main Street. Make a right onto Main Street. Go into the first parking lot on the right (olive-green arrow) -- in front of McConnell Library, and beside Center for the Sciences (purple arrow). The poster session / social hour starts at 5:30 pm in the Center for the Sciences. The Awards Ceremony starts at 7:00 pm in McGaffey Hall Room 203 (blue arrow).

The parking pass for the meeting can be found at <http://chermann.asp.radford.edu/Chemical%20Society%202004-20-18.pdf>

A map to the campus is at http://chermann.asp.radford.edu/Parking-MAP_Jan2018.pdf



We are still working on our traditional tour for May. Stay tuned.