

The Blue Ridge Chemist

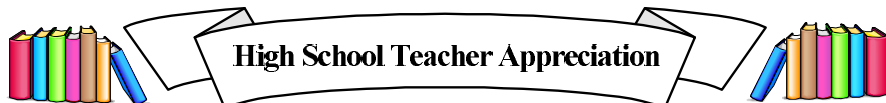
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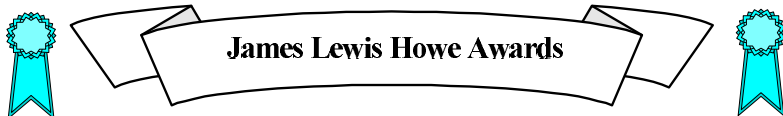
No. 4



High School Teacher Appreciation



Outstanding High School Teacher



James Lewis Howe Awards



Undergraduate/High School Posters

Radford University Hosts April Meeting

<http://membership.acs.org/v/vbr>

VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

616th SECTION MEETING
Hosted by Radford University
Thursday, April 17, 2008

PROGRAM:

- 5:00-5:30 Students setup posters on posterboards
- 5:30-6:30 Social Hour/Poster Session, Muse
- 6:30-7:30 Dinner, Muse Banquet Hall
- 7:30- Meeting and Awards, Muse Banquet Hall

The social hour, dinner, and meeting will take place in the Muse Banquet Hall (not usual place) at Radford University. Dr. Justin Barone will be talking on "Building Biopolymer Structures from Protein Building Blocks".

Dinner will consist of fresh garden salad, choice top round of beef au jus, petite chicken breast with apple almond stuffing, country style green beans, seasoned smashed red skin potatoes, roasted fresh vegetables, whole wheat and white rolls, desserts (apple pie, carrot cake, and chocolate torte cake), and drinks (iced tea, decaffeinated coffee, regular coffee). Dinner is \$14. Students and retired members are half price. Poster presenters receive a free meal. High school teachers are guests of the section with a complimentary meal for themselves and a companion.

Reservations for the dinner must be made by THURSDAY, APRIL 10 by calling Chris Hermann at 540-831-5413 or by email to chermann@radford.edu, or regular mail to Department of Chemistry and Physics, Radford University, Radford, VA 24142. **Please note that everyone needs to request a parking pass from Dr. Hermann when a poster is submitted or a dinner reservation is made.**

Karen Hicks of Glenvar High School will receive the Outstanding High School Teacher award.

Building Biopolymer Structures from Protein Building Blocks

Biopolymers are plentiful materials found in nature. The rising cost of petroleum has renewed interest in biopolymers as a potential alternative to petroleum-derived polymers. Here we show how existing biopolymers can be obtained cheaply and converted into useful polymeric materials. By distilling protein structure into a series of simple "building blocks" we will show how these building blocks can be arranged into structural materials. "Green" and "bio-inspired" chemistries will be shown to alter the building blocks to affect properties.

Dr. Justin Barone

Biological Systems Engineering Department, Virginia Tech

Justin Barone joined the Biological Systems Engineering Department at Virginia Tech as an Associate Professor in January 2007 as part of the university-wide biomaterials cluster hire. Dr. Barone works in the area of renewable materials with a focus on developing new biopolymeric systems derived from agricultural products. Dr. Barone has a background in materials and polymer science. He received his B.S. degree in Materials Science and Engineering from Lehigh University, his M.S. degree in Engineering Science from New Jersey Institute of Technology, and his Ph.D. degree in Macromolecular Science and Engineering from Case Western Reserve University. Prior to joining the department, he was a Research Chemist with the Agricultural Research Service of the United States Department of Agriculture in Beltsville, Maryland.



Karen Hicks

Glenvar High School

Recipient of the Outstanding High School Teacher Award from the Virginia Blue Ridge Section of the American Chemical Society

Karen Hicks received her BS degree (Biology/Chemistry) from Roanoke College in 1995, and returned to Roanoke College in 1997 to become endorsed in teaching. She is currently pursuing her Masters degree in Curriculum and Instruction at Radford University. Mrs. Hicks has been teaching in Roanoke County Schools for 10 years and her current course load consists of AP chemistry, chemistry, and biology.



Mrs. Hicks wants students that come through her classes to see the connections between what they are learning and how science impacts them personally. She believes in asking the students questions rather than answering theirs as much as possible. She is part of a team of teachers from Glenvar High and Middle School awarded a Learn and Serve Virginia grant for 2006-2009 titled "From the Roots of the Watershed and Into the Stream". Her advanced and AP chemistry students collected water quality data to serve as a baseline for future studies.

JAMES LEWIS HOWE AWARDEES

We are again pleased to be able to honor the outstanding students who are majoring in an area of chemistry in the Colleges and Universities in the Virginia Blue Ridge Local Section. These students are listed below.

Ashley Figueiredo

Sweet Briar College

HOMETOWN: Westfield, MA

ANTICIPATED DEGREE:

B.S. in Biochemistry and Molecular
Biology

AWARDS AND MEMBERSHIPS:

National Dean's List

Allmerica Scholarship

Sweet Briar College First Year Honors

Sweet Briar College Dean's List

Betty Bean Black Scholarship

Max Preston Memorial Scholarship

National Field Hockey Coaches' Association National
Academic Squad

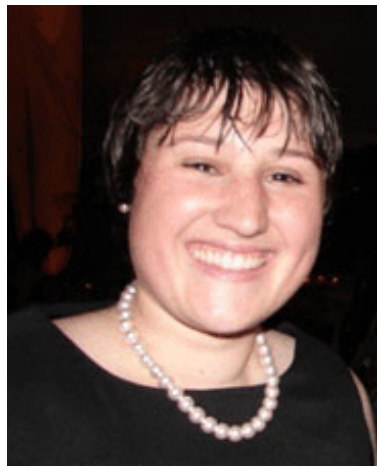
Federal Employee Education and Assistance Fund/ National
Treasury Employers Fund (FEEA/NTEU)

Chapter 23 Frank McDonough Scholarship

Iota Sigma Pi, Lanthanum Chapter

American Chemical Society Student Affiliate

Materials Research Society



Corey W. Meadows

Concord College

HOMETOWN: Bluefield, WV

ANTICIPATED DEGREE:

B.S. in Comprehensive Chemistry

AWARDS AND MEMBERSHIPS:

CRC Freshman Chemistry Award

Dean's Scholar

American Chemical Society

Blue Key



Kevin Norfleet

Virginia Tech - Chemical Engineering

HOMETOWN: Richmond, VA

ANTICIPATED DEGREE:

B.S. in Chemical Engineering, minor
in Chemistry, Microelectronics

AWARDS AND MEMBERSHIPS:

AICHE member

Micron Scholar

Fred B. Durham Scholarship

Donald M. Cox Scholarship

R.H. Bogle Scholar

VT Intramural Male Athlete of the Year

Seay Scholar

University Honors

Dean's List with Distinction

Marshall Hahn Scholar



Laura Jessica Strausberg

Hollins University

HOMETOWN: Bel Air, MD

ANTICIPATED DEGREE:

B.A. in Chemistry

AWARDS AND MEMBERSHIPS:

Judith Gregory Smith Science Award
REU participant, U of KY, summer 2007



Samantha Lynn Strickland

Roanoke College

HOMETOWN: Richmond, VA

ANTICIPATED DEGREE:

B.S in Biochemistry

AWARDS AND MEMBERSHIPS:

Phi Beta Kappa National Honor Society
Fintel Scholar
Fisher Scholarship
Alpha Chi National Honor Society
Omicron Delta Kappa Leadership Honor Society
Xi Theta Chi-Foreign Language Honor Society
Who's Who Among Students in American Colleges and Universities
Iota Sigma Pi
Ronald R. Oetgen Organic Chemistry Award
Sigma Delta Pi
Alpha Lambda Delta



Whitney Elaine Snyder

Radford University

HOMETOWN: Elkton, VA

ANTICIPATED DEGREE:

B.S. in Chemistry

AWARDS AND MEMBERSHIPS:

Dr. Charles K. Martin Scholarship
Dean's List
National Society of Collegiate Scholars
Student Affiliated- American Chemical Society
Dr. Edna Warweg Speidel Memorial Scholarship in Chemistry



Margaret Guy

Virginia Tech - Biochemistry

HOMETOWN: Union, WV

ANTICIPATED DEGREE:

B.S. in Biochemistry

AWARDS AND MEMBERSHIPS:

Phi Beta Kappa
Engel Scholarship
Biochemistry Scholarship
Dean's List
James F. Powell Scholarship
SGA Representative for the Red Cross Club of Virginia Tech



Randall C. Life

Virginia Military Institute

HOMETOWN: Elkton, VA

ANTICIPATED DEGREE:
B.S. in Chemistry

AWARDS AND MEMBERSHIPS:

Phi Kappa Phi
Omicron Delta Kappa
Institute Scholar
URS science winner
Faculty Mentor Award

S2 Lt. (one of four cadets in charge of academic affairs at the school in conjunction with the commandant's and dean's staffs.)



Jennifer C. Mullins

Randolph College

HOMETOWN: Colonial Heights, VA

ANTICIPATED DEGREE:
B.S. in Chemistry

AWARDS AND MEMBERSHIPS:

Iota Sigma Pi
Sigma Xi
Program of the Year Award
Initiator of the Year Award
Trustee Scholarship
James Ursano Army Emergency Relief Scholarship
Iowa National Defense Industrial Association Scholarship
Rock Island Arsenal Women's Club Scholarship
Scholarship for Military Children
Annalisa Trolle Maddy Military Officers Association of America
Scholarship
Deans List
ODAC Academic All Conference Award
First Year Writers Award
Jefferson Cup Award
Production of the Year Award
Lawrence Livermore National Laboratory Technical Scholar



Andrew Peter Hummel Ackell

Washington and Lee University

HOMETOWN: Appleton, WI

ANTICIPATED DEGREE:
B.S. in Biochemistry with Honors

AWARDS AND MEMBERSHIPS:

James Keith Shillington Scholarship
Alpha Epsilon Delta
Phi Beta Kappa, Gamma of Virginia Chapter
Phi Eta Sigma



Stephanie Erin Moore

Virginia Tech - Chemistry

HOMETOWN: Fredericksburg, VA

ANTICIPATED DEGREE:

B.S. in Chemistry, minor
in Psychology

AWARDS AND MEMBERSHIPS:

Julius P. Bilisoly Scholarship
Arthur G. Meakin Scholarship
Iota Sigma Pi
Dean's List
VT Chemistry Department Academic Excellence Award
College of Science Rising Junior Scholarship
American Medical Students Association
Chemistry Club
John and Sarah Harvie Scholarship
Virginia Tech Accenture Scholarship
CRC Freshman Chemistry Achievement Award
American Chemical Society
Stafford Jaycees Student of the Year Scholarship
Virginia Tech College of Arts and Science Scholarship
AP Scholar with Distinction
President's Award for Educational Excellence
Math Student of the Year Scholarship
Health Promotions Team
Chemistry Club
Golden Key
National Society of Collegiate Scholars



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.

Dr. Howe was born in Newburyport, Massachusetts in 1859; this is the same year in which Svante Arrhenius was born, and during Dr. 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".

He 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.

In 1883 he 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 here that he 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.

Parking at Radford University

The parking rules at Radford have changed again. Parking permits are required before 6:00. Everyone needs to request a parking pass from Dr. Hermann when a poster is submitted or when make a dinner reservation is made. A parking permit can be received by e-mail from Chris Hermann.

Regional Science Fair Winners of the VBRS Award

Each year the Virginia Blue Ridge Sections awards a \$50 US Savings Bond to the project selected as the best overall chemistry project at the regional science fairs in its boundaries. This year's winners are listed below.

Zack Truman (Franklin County High School/Roanoke Valley Governor's School) was the winner of the VBRS award at the Western Virginia Regional Science Fair. His project was in the Biochemistry/Chemistry/Cellular & Molecular Biology Division.

Bonnie Pohlig (Pulaski County High School/Southwest Virginia Governors School) was the winner of the VBRS award at the Blue Highlands Regional Science Fair. Her project title was "The Effects of Salicylic Acid on Green Bean Plant Growth" in the Plant Science Division.

National Chemistry Week Poster Winner

The Virginia Blue Ridge Section also sponsors a poster contest for students in grade K-12 during National Chemistry Week. This last November's theme was "The Many Faces of Chemistry". The winner of this award (a \$50 US Savings Bond) was Blake Chapman from Hidden Valley High School.

Congratulations

The Virginia Blue Ridge Section of the American Chemical Society would like to congratulate these winners, and all the other students who participated in these events. We need more students like these who are interested in science.

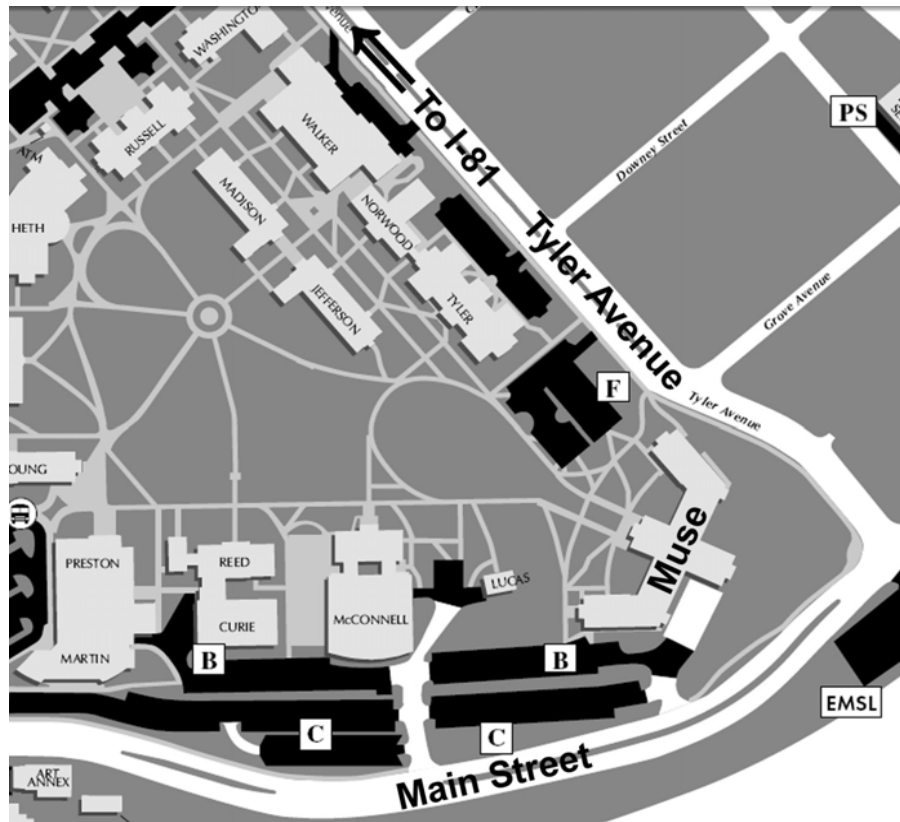
Directions to Radford University

Directions: Take I-81 to exit 109 and follow Route 177 (Tyler Ave) to Main Street. Go straight into the parking lot beside the bank or make a right, then another right and go into the parking lot.

CAUTION: The parking rules at Radford have changed. Parking permits are required before 6:00. A parking permit can be received by email from Chris Hermann.

Map of Radford University

Adapted from Radford University Web Site



Non-Prof. Org.
U.S. Postage
PAID
Salem, VA 24153
Permit No. 31

THE BLUE RIDGE CHEMIST
Vern Miller, Editor
Roanoke College
Salem, VA 24153

The arrangements for the May meeting, which traditionally has been a tour, are incomplete. Look for the next edition of the Blue Ridge Chemist.