

The Blue Ridge Chemist

The Blue Ridge Chemist, since 1947 the
Official Local Section Publication of the
Virginia Blue Ridge Section, American Chemical Society



VOLUME LIX

March 2006

No. 3

History Quiz

Submit your answers to this month's question by March 21, 2006 to Adele Addington (Addington@roanoke.edu)

1. What year did the "Blue Ridge Chemist" receive its name?

2. Dr. J. A. Campbell suggested the name for our section's newsletter. Was he, or was he not a member of the Virginia Blue Ridge section?

VMI Hosts the March Meeting

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

VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

599th SECTION MEETING Hosted by Virginia Military Institute

Tuesday, March 21, 2006

PROGRAM:

- 5:30-6:00 Social Time, Moody Hall Activity Room
6:00-7:00 Dinner, Moody Hall Activity Room
7:00-8:00 Talk, Moody Hall Activity Room

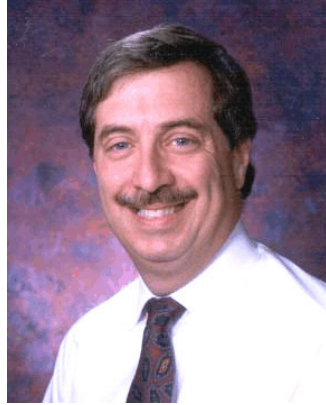
The social time, dinner, and talk will take place in Moody Hall Activity Room. Dr. Dom Paone will be speaking on "Novozymes Biologicals: Harnessing Biotechnology for a Cleaner Environment".

Dinner will be pecan crusted chicken, sweet potatoes, green beans, rolls, dessert, and coffee/tea. A vegetarian plate is available upon request when the reservation is made. Cost for the dinner is \$14.00, with students and retired ACS members being half price.

Reservations for the dinner must be made by MONDAY, MARCH 13, EIGHT DAYS before the meeting, by contacting Margaret Anderson at 540-375-2441, or by e-mail to Anderson@roanoke.edu, or by mail to Margaret Anderson, Department of Chemistry, Roanoke College, Salem, VA 24153.

Dr. Dom Paone, Novozymes Biologicals

Dr. Paone is Senior Group Leader, Research and Development for Novozymes Biologicals in Salem, Virginia. He is currently responsible for product development in the Institutional and Household and Industrial Waste Treatment business segments. Dr. Paone has developed and commercialized formulated biochemical products and microbial strains that clean surfaces as well as enhance biodegradation of grease, household waste, and odors. Dr. Paone's expertise in microbial physiology has allowed him to target specific organic waste substrates with specific microbes for enhanced cleaning capabilities. Dr. Paone has been granted several patents in the area of biodegradation/biocatalysis. The most recent patents deal with using *Bacillus* species in the degradation of long chain fatty acids found on floors and in grease traps. Dr. Paone has developed microbial-based processes for the degradation of nuisance and hazardous organic compounds (1,4-dioxane and dichloromethane), nitrification, denitrification, and sulfide oxidation. He has developed protocols and methods for the enumeration of anaerobic microorganisms from wastewater and hazardous waste treatment systems.



Dr. Paone received his Ph.D. in 1981 from The Pennsylvania State University and completed three years of postdoctoral study at the Medical College of Virginia in microbial physiology of intestinal anaerobic microorganisms. He has fifteen years of experience in industrial biotechnology (Celgene Corp. and Novozymes Biologicals) with emphasis on the isolation, characterization and use of microorganisms for the degradation of hazardous and nuisance compounds. These biocatalysts are used for cleaning and in engineered systems.

Novozymes Biologicals: Harnessing Biotechnology for a Cleaner Environment

Novozymes Biologicals, formed in 2001 by the acquisition of Sybron Biochemicals by the Danish enzyme producer Novozymes A/S, is the world leader in applied microbiology. The strategy of Novozymes Biologicals is built upon our core competency, the discovery, production and development of microbes to achieve a targeted effect. Microbes with differing capabilities are blended together and developed into a formulation to bring both immediate cleaning and longer lasting deep cleaning through microbial action. The technology base of Novozymes Biologicals has been applied to three main categories, wastewater bioaugmentation (pulp and paper, petrochemicals, food process industries, and municipal treatment systems), institutional & household (hard surface cleaning and odor control, drainline and septic maintenance) and agricultural applications (plant growth and disease control). By harnessing biotechnology Novozymes Biologicals is able to replace environmentally damaging products with products deemed to be friendly to the environment.

One such product, DeepClean was introduced by Novozymes Biologicals several years ago as a commercial kitchen cleaning product which contained several proprietary and one patented microbial strain. The driving force behind this product was the isolation, production and patenting of *Bacillus megaterium* strain SB3112, also known as BioS3112. This Gram positive spore forming stain was developed as a long chain fatty acid degrading strain which when coupled to lipase producing microbial strains enhanced the cleaning of floors by surfactant only compositions. Other short chain volatile fatty acids which typically cause odors are also degraded by BioS3112. Field tests indicated higher slip index (less slippery) on greasy kitchen floors after several weeks of use. An added benefit of such treatment was a replacement of the normal microbial flora of the floor with a population consisting of the strains in DeepClean.

Virginia Blue Ridge Section's 75th Anniversary: Our BIG BASH Call for Posters

Attention SAACS advisors: As part of our celebration of our 75th anniversary, we would like each SAACS group to prepare a poster highlighting activities and achievements of our SAACS groups for the October meeting. This will be a wonderful opportunity to share your achievements and activities with other SAACS groups and to learn about what other students are doing in the area. More details about size limitations of your poster will be included in upcoming BRC publications, but start thinking about what you can present in your poster now!

Virginia Blue Ridge Section's 75th Anniversary: Our BIG BASH Logo Design Competition

Attention SAACS Advisors: To help us celebrate 75 years of local section activities, we would like to invite our student affiliate groups to be involved and help in designing a logo for our celebration! Design a nifty icon that embodies our celebration. Ideas may include, but certainly are not limited to the fact that this is our 75th anniversary. As this is our "diamond" anniversary, perhaps your design could include the chemistry of carbon (organic, polymer, biological, and any other ties you can make). Be creative and colorful!

For individuals with an idea, but not part of a SAACS group, please contact a SAACS group nearby to contribute your ideas!

Submit your entry to Adele Addington (addington@roanoke.edu) along with description of the symbolism embodied in your design by April 1. The winning entry will be announced at the April meeting. A \$50 prize will also be awarded to the winning entry at that time.

Virginia Blue Ridge Section's 75th Anniversary: Our BIG BASH History Snippet

In preparation for our historical celebration in October, we will be sharing a brief snippet of our section's history each month in the BRC. Additionally we will include two questions for you to answer. Submit your answers to each question to Adele Addington (Addington@roanoke.edu); a winner will be randomly selected from all the correct entries received that month to win a free meal at an upcoming regular local section meeting!

The 1950s: A Period of Growth and Involvement

Over the first 20 years of the Virginia Blue Ridge Sections activities, membership had grown to 178. There were eight standing committees and three ad hoc groups. More than 75 members participated in the elective or appointed responsibilities of the section. In 1951, the geographical footprint of the section grew as well, as Pittsylvania County and Mercer County (West Virginia) were added to the section.

Section meetings were mostly of the dinner format as we currently enjoy, but annual picnics were held from 1953 through 1965. Plant tours were common events prior to regular meetings, and many members participated as judges at science fairs.

During this period as well, Dr. Ashley Robey developed the section's newsletter into a magazine-like publication. Advertisements provided significant income to offset printing costs. Indeed, by 1959, the publication had a net worth of more than \$1700, with one issue alone generating nearly \$600 in advertisement fees. In addition to advertisements, each issue contained a biography of the featured speaker, an abstract of the seminar, minutes of previous meetings, articles from other Sections' publications, and even a few jokes from time to time. In 1951, the BRC published its first roster of the sections' members, including home addresses, employment, schools

attended and degrees. The publication grew in scope and resources to the point that in 1959, an advertising manager was appointed and correspondents named for every town or institution where there was more than one member.

Dr. Robey also began the practice of passing around a sheet of paper at section meetings for attendees to sign; the attendance list was then published in the BRC the following month. Additionally, he included a postage-paid reply card on which members were to tell if indeed they were planning on attending the upcoming section meeting. In his self titled "Robey's Rabid Rantings" column in the BRC, Dr. Robey would scold members who did not return their reply cards in a timely manner.

The Section's 25th Anniversary was not marked with any fanfare; no special celebrations were held, although the fact was mentioned by the Section Chair at the time, Seldon Todd. The evening's speaker was one of the sections own members: Dr. Nan Thornton.

(Information taken from "The Fifty Year History of the Virginia Blue Ridge Section of the American Chemical Society, 1932-1981"; E.F. Furtsch, August 1981).

Answers for January's Quiz

1. For the six additional chemists in attendance at the first meeting of the Southwest Virginia Chemists Club, name the work place of three.

LeRoy H. Smith	<u>Viscose Co.</u>
J.H. Gibboney	<u>Norfolk and Western Railway System</u>
George Downey	<u>Leas and McVitty Tanneries</u>
Lester Whitmore	<u>Leas and McVitty Tanneries</u>
Harriett Fillinger	<u>Hollins College</u>
George McDonald	<u>Roanoke High School</u>

2. Where was the first meeting of the Southwest Virginia Chemists Club held?

The Patrick Henry Hotel in Roanoke

January's Winner: Harry I. Johnson Jr. (Dr. Johnson Jr. is the son of Dr. Johnson, Sr, who took his son to many of the early meetings of the society, and knew all these founding members of our section.)

Answers for February's Quiz

1. Of the 21 members of the Virginia section signing the original petition to form the Blue Ridge section, name five.

George Downing	Harry I. Johnson
H.B. Riffenburg	F.H. Fish
LeRoy Smith	J.B. Lucas
J.H. Gibboney	J.A. Addelstone
L.M. Whitmore	William P. Allison
Agnes Graham Sanders	J.W. Watson
Harriett Fillinger	R.E. Hussey
Margaret Keller	H.H. Hill
L.J. Desha	W.B. Ellett
James Lewis Howe	J.F. Eheart
Rose H. Davis	

2. Where was the first meeting of the Virginia Blue Ridge Local Section held?

East Radford, Virginia

February's Winner: No entries were submitted for the February Quiz!

ACS Responds to Members Affected by Gulf Coast Hurricanes

Following the devastation to the Gulf Coast wrought by this year's hurricanes, a Hurricanes Response Task Force was created to identify ways in which the Society can help ACS members who live and work in those areas. At the recent ACS Board of Directors meeting, the Board voted to accept the recommendations made by the Task Force:

That the Society declare a suspension of dues for a period of 12 months to the 302 ACS members in the hardest hit regions affected by the Gulf Coast hurricanes. These members will be moved to an unemployed dues waiver status and be treated as "paid active" for a period of 12 months, starting the date following the current paid date. That all members (approximately 564) in the postal zip codes that were at one time considered undeliverable be eligible to "opt – in" to the unemployment dues waiver status. Members will have the option to continue their dues as routine, or postpone dues payment via an "opt – in" feature.

Members in the affected areas will soon be notified. The Board expressed its appreciation to the Hurricanes Response Task Force for its effective response to this significant crisis.

Join the Fun Run - ACS National Meeting

If you plan to be at the ACS National Meeting in Atlanta, GA, please participate in the 5th annual YCC Fun Run at Piedmont Park, 2 miles northeast of downtown Atlanta. Healthy scientists are happy scientists, so join fellow chemists for the annual Younger Chemists Committee 5K Run/1.5 Mile Walk. Bus transportation from the Georgia World Congress Center to the park will be available. Register by March 10 to take advantage of the early registration fee (\$25) and to receive a free T-shirt. After March 10, the registration fee is \$35. Forms and details are available at http://acswebcontent.acs.org/nationalmeeting/atlanta2006/YCC_reg.pdf.

Fourteenth Annual Undergraduate/High School Poster Session

The Virginia Blue Ridge Section of the ACS is sponsoring its annual poster session as a part of the April 19, 2006 meeting at Radford University. The posters will consist of an 8'(high) by 4'(wide) board.

If you have a student or students, who will be participating, submit the following information to Chris Hermann by April 1, 2006 via email [chermann@radford.edu], by fax [540-831-6615], or by mail [Box 6949, Department of Chemistry and Physics, Radford University, Radford, VA 24142]. Any questions, call Chris Hermann at 540-831-5413 (office), 540-639-6705 (home), or 540-818-2431 (cell). Students and faculty will get e-mail confirmation.

Name of Project:

Name(s) of Student(s):

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

Class of Student(s) (circle) (freshman, sophomore, junior, senior)

Student(s) e-mail address: _____

Advisor's Name, Address, Telephone Number, and e-mail address:

Directions to Virginia Military Institute

Take Exit 188B off I-81 onto Route 60 west, continuing into Lexington. At the 6th light turn right on Main Street and immediately move to the left lane. Go three blocks and make a hard left turn onto Jefferson Street. Immediately move into the right lane and turn right onto Letcher Avenue. Proceed to the VMI Parade Ground. Moody Hall is on the left corner. Parking is available in front of the building. Social time, dinner and talk are in the Activities Room of Moody Hall. Other driving directions can be found at <http://www.vmi.edu/show.asp?durki=603&site=24&return=212%20+>

Map of Lexington



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The next Virginia Blue Ridge Section meeting will be Wednesday, April 19, at Radford University. The speaker will be Dr. Atilla Pavlath, past ACS President, speaking on local section activities. The contact person is Chris Hermann.