



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

NOVEMBER MEETING NOTICE

NOVEMBER 2006

**University of Mary Washington
Fredericksburg, Virginia**

Friday, November 17, 2006

SOCIAL HOUR: **6:00 p.m.**
Faculty Dining Room
Seacobeck Hall
College Avenue

DINNER: **6:30 p.m.**
Faculty Dining Room
Seacobeck Hall

PROGRAM: **7:30 p.m.**
Room 100
Jepson Science Center
College Avenue

MENU: Tossed Salad with Assorted Dressings, Carved Turkey, Virginia Ham with Raisin Sauce, Homestyle Stuffing, Mashed Potatoes with Gravy, Fresh Green Beans, Dilled Baby Carrots, Yeast Rolls with Whipped Butter, Double Chocolate Layer Cake, Pumpkin Pie, Coffee, Hot Tea, Iced Tea

PRICE: Members /Guests - \$19.00; Students, High School Teachers, Retired ACS Members/Spouses, Retired Teachers/ Spouses - \$10.00

DINNER RESERVATIONS: Please make reservations by **NOON on Tuesday, November 14** by calling The University of Mary Washington at (540) 654-1016.

HOST: Dr. Roy F. Gratz, (540) 654-1412, rgratz@umw.edu

SPEAKER: **Dr. Leanna C. Giancarlo**
University of Mary Washington

TOPIC: **“Galileo Galilei: Moving toward Chemistry”**

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5	6	7	8	9	10	11
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19	20	<i>reservations</i>	22	23	<i>meeting</i>	25
26	27	28	29	30		

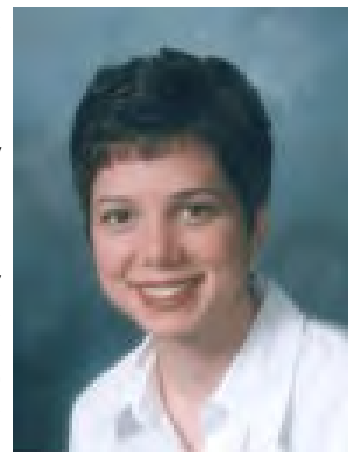
Dr. Leanna C. Giancarlo

Leanna C. Giancarlo received her Ph.D. in Physical Chemistry from the University of Pennsylvania in 1996 under the direction of Dr. Marsha I. Lester. After a post-doctoral fellowship in the laboratory of Dr. George W. Flynn at Columbia University, Dr. Giancarlo came to the University of Mary Washington as a senior lecturer in 1999. She is currently an Associate Professor at Mary Washington, where she teaches courses in General Chemistry, Physical Chemistry, and History of Science.

Dr. Giancarlo's interests span many areas. Her research is focused on the use of Scanning Probe Microscopies to investigate intermolecular interactions at interfaces. She is the author of numerous papers that examine the organization of long-chain molecules physisorbed on graphite and molybdenum disulfide substrates, utilizing STM. In 2001, she and two colleagues were awarded a National Science Foundation grant to purchase a Scanning Probe Microscope for teaching and research at Mary Washington.

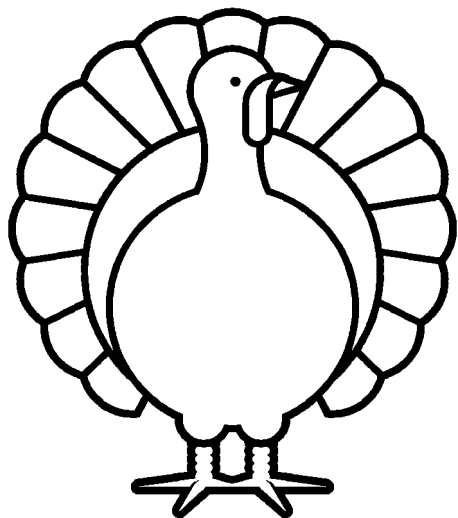
Dr. Giancarlo is a research associate on an NSF grant for a variable-pressure scanning electron microscope as well.

In addition, she has co-authored two papers in the Journal of Chemical Education that describe novel pedagogies in the chemistry classroom. In 2004, she was awarded the Mary Washington Alumni Association Outstanding Young Faculty Award. Dr. Giancarlo is actively engaged in researching revolutionary scientists for her History of Science course. She was invited to deliver a presentation as part of the Great Lives Lecture Series at UMW last winter.



“Galileo Galilei: Moving toward Chemistry”

Galileo Galilei (1564 – 1642) was a revolutionary scientist best remembered for his controversial writings in support of Copernicanism and his tragic battle with the Catholic Church. Despite the brilliance he displayed in his scientific writings, it is his work on motion that makes him an essential character for chemists. Starting with first attempts to disprove Aristotelian physics as a young mathematics professor at the University of Pisa (by, as the story goes, dropping objects from the Leaning Tower) to his world-shattering celestial observations of the moons of Jupiter in 1610, Galileo's scientific works are centered about motion, in particular the motion of the earth and that of falling bodies. Yet, chemists also owe a debt of gratitude to the Renaissance scientist on another count: Galileo was one of the first natural philosophers to attempt to quantify his observations and explain them using logic and mathematics.



HAPPY THANKSGIVING

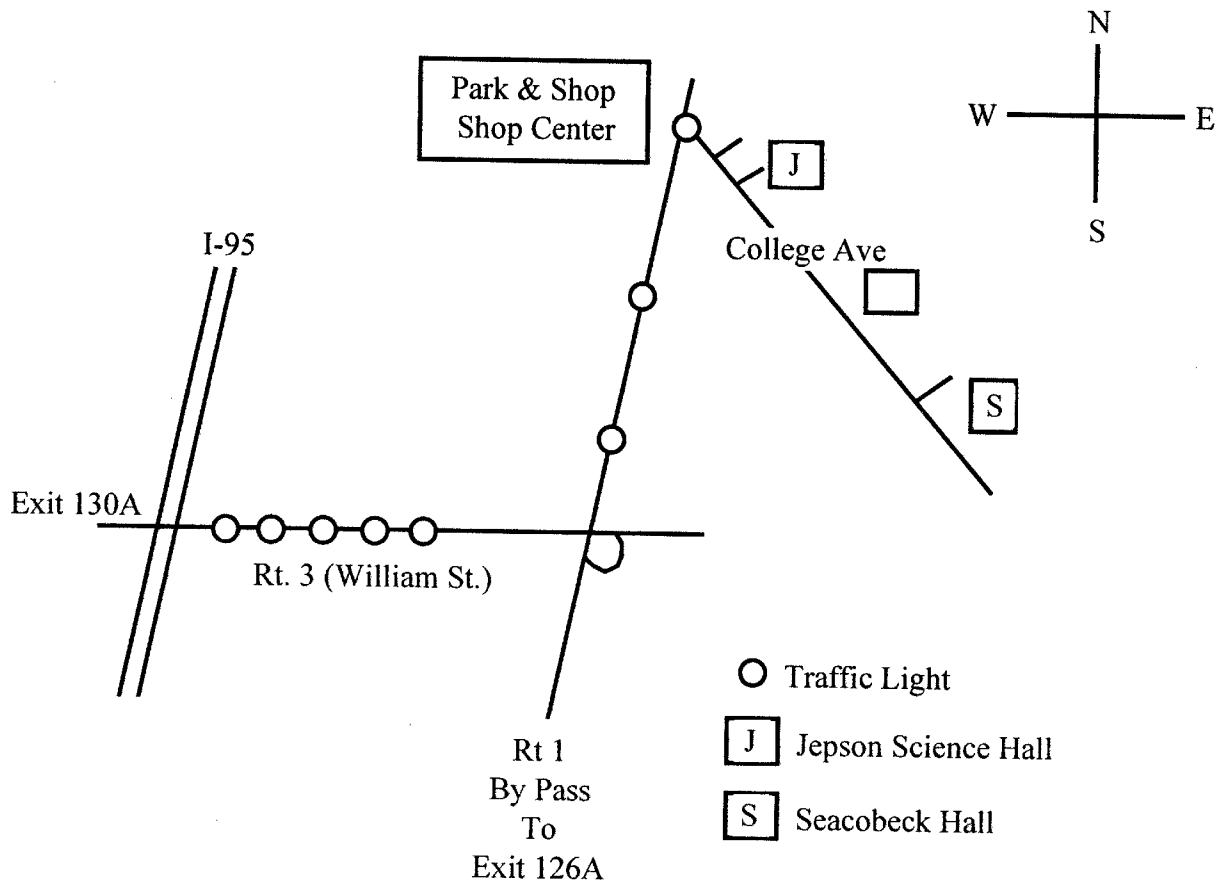
DIRECTIONS

Fredericksburg is located just off I-95, about 50 miles north of Richmond.

Traveling from the south on I-95, take Exit 126A, Rt. 1, north to Fredericksburg. Stay on the Rt.1 bypass (a four-lane divided highway, with the usual interstate exit clutter for the first mile) for about four miles until you get to College Avenue (traffic light, across from the Park and Shop Shopping Center with a Giant Food store). Turn sharp right on to College Avenue and make the second left (< 1/4 mile) into the parking lot at the Jepson Science Center, or park on College Avenue. Walk along College Avenue to the second building past Jepson Hall; enter Seacobeck Hall by the north rear door.

From the west, come into Fredericksburg on Rt. 3 (William Street). About one mile from I-95 (Exit 130A) turn north on the Rt. 1 bypass (turn right on the cloverleaf after passing under Rt. 1). Go about one mile until you get to College Avenue (3rd traffic light, across from the Park and Shop Shopping Center with a Giant Food store). Turn sharp right on to College Avenue and make the second left (< 1/4 mile) into the parking lot at the Jepson Science Center or park on College Avenue. Walk along College Avenue to the second building past Jepson Hall; enter Seacobeck Hall by the north rear door.

MAP OF THE UNIVERSITY OF MARY WASHINGTON



***** VIRGINIA SECTION NEWS ********FUTURE MEETING***

DATE: December 1, 2006
LOCATION: John Tyler Community College
Chester
HOST: Dr. Kristine Smetana
PHONE: (804) 706-5143
SPEAKER: Dr. Manfred Psiorz
TOPIC: "Obtaining Pharmaceuticals from Plant Materials"

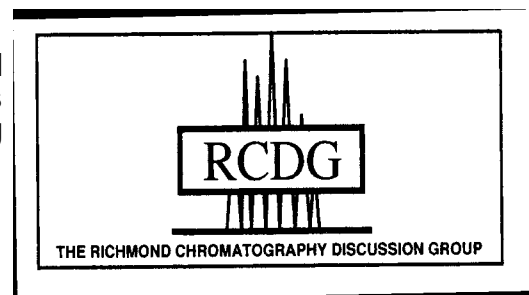
PRESENTATION OF TEACHING AWARDS***2007 MEETINGS***

January 19, 2007 - Science Museum of Virginia, Broad Street, Richmond

February 23, 2007 - University of Richmond - Dr. Sunney Xie, Harvard University
(POWELL LECTURESHIP)

RCDG

The RCDG meets monthly for discussions of topics related to chromatography. For more information on RCDG or its meetings, or to have your name placed on their newsletter mailing list, contact Carol Sheets at (804) 358-9468, Csheets@aderis.com. Or check their website: www.rcdg.org.

***TEACHING AWARDS***

The December meeting of the Virginia Section will be held at John Tyler Community College in Chester on Friday, December 1. The Section's teacher awards will be made at this meeting. The 2006 awards will be presented to

Mr. Ram Bhagat of the Open High School in Richmond for Distinguished Service in High School Chemistry Teaching and to Ms. Mary Holmgren of the Fred Lynn Middle School in Woodbridge for Distinguished Service in Middle School Science Teaching.

CHEMISTRY AT THE UNIVERSITY OF MARY WASHINGTON

After forty years in Combs Hall, the chemistry program at the University of Mary Washington is now beginning its ninth year in the Jepson Science Center. The facility provides student research space; modern teaching labs, including an organic chemistry lab with hood space for every student; and state-of-the-art multimedia and Internet capabilities. Seven full-time faculty teach a traditional chemistry major with 10-15 graduating seniors each year. In addition to the standard majors' courses, the program requires of all students a senior-level course on organic structure determination, separations, and spectroscopy and one seminar presentation. A full year of biochemistry is available as an elective, as are courses in instrumental analysis and environmental chemistry. The general chemistry and analytical programs use several cooperative, discovery-based experiments in the laboratory. The department is well-equipped, providing all students with hands-on experience with a variety of techniques and instruments, including H-NMR, C-NMR, FT-IR, GC/MS, ICP, and a scanning probe microscope. There are numerous computers for student use in the labs, classrooms, and the chemistry computer room. UMW chemistry graduates have earned advanced degrees at schools such as UVA, VCU, MIT, Princeton, Florida, Johns Hopkins, and Maryland and medical degrees at UVA, MCV, and EVA. Other graduates have gone directly to work at government labs including NIH, the Naval Research Lab, and the Patent Office, or for industries such as Dow Chemical, Philip Morris, Wyeth, and Virginia Power.



**JEPSON SCIENCE CENTER
AT
THE UNIVERSITY OF
MARY WASHINGTON**

CHEMICAL ENGINEERING SEMINARS AT THE UNIVERSITY OF VIRGINIA

November 9 - **Professor Eric Kaler**, University of Delaware

December 7 - **Professor Christina Chan**, Michigan State University

Seminars are held at 11:00 a.m. in Room 005 of the Chemical Engineering Building.
Call (434) 924-7778 for more information.

**WORDS OF WISDOM FOR NOVEMBER: "MOTIVATION IS WHAT GETS
YOU STARTED. HABIT IS WHAT KEEPS YOU GOING"**

CHEMISTRY SEMINAR AT VIRGINIA COMMONWEALTH UNIVERSITY

November 14 - **Professor Umesh R. Desai**, Virginia Commonwealth University, "Radical Approaches to Targeting Coagulation Enzymes"

Seminars are held at 3:30 p.m. in the Kapp Lecture Hall, Room 1024, in the Mary E. Kapp Wing of Oliver Hall, 1001 West Main Street. Call (804) 828-1298 for more information.

CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

November 3 - **Professor Zhen Huang**, Georgia State University, "Atom-Specific Mutagenesis by Synthesis of Selenium Nucleic acids (SeNA) for Structure and Function Studies"

November 10 - **Professor David Y. Gin**, University of Illinois at Urbana-Champaign

November 17 - **Professor Thomas Kodadek**, University of Texas Southwestern Medical Center, "Chemical Approaches to Monitor and Manipulate the Proteome"

December 1 - **Professor Gustavo Scuseria**, Rice University

Chemistry colloquia are held at 4:00 p.m. in Room 304 of the Chemistry Building. The complete colloquium schedule is on-line at <http://www.virginia.edu/chem/newsandevents/seminars/>.

QUESTIONS FROM THE PAST

This question was asked in the October issue of the Bulletin: On September 22, 2006, Dr. William Rademaker received the Distinguished Service Award from the Virginia Section. In 1988, he was given the Section's Distinguished Service Award for High School Chemistry Teaching. Bill is the second person to have received both of these awards from the Virginia Section. **Who was the other person who was given both the Distinguished Service Award and the award for high school teaching?** Franklin Kizer received the Distinguished Service Award for High School Chemistry Teaching in 1955 and the Distinguished Service Award in 1978. Frank is still a member of the Executive Committee for the Virginia Section. He and his wife Helen live in Lancaster, Virginia.



New question: **When was the first Virginia Section meeting held in the city of Fredericksburg?**

GRANTS FOR K-12 SCIENCE PROJECTS

The Virginia Section is soliciting proposals for grants to support school science projects in grades K through 12. The \$50 to \$500 grants will be provided to teachers in the Virginia Section for the purchase of materials and supplies. To apply for support, request an application form from Mr. Ryan Warren, 304 N. Sheppard Street, Richmond, VA 23221; (804) 342-1323; warrencr@vcu.edu. Or complete an application on-line by accessing the Virginia Section website at <http://membership.acs.org/VVA/grants.htm>.

REPORT ON THE SEPTEMBER AWARDS MEETING

The annual Awards Meeting was held at Virginia Commonwealth University in Richmond on Friday, September 22. Dr. Dorothy Eseonu, Chair of the Virginia Section, presided. She presented the Section's Distinguished Service Award to Dr. William Rademaker who retired recently after 26 years of teaching at Midlothian High School in Chesterfield County. Dr. Rademaker then spoke about "Fifty Years of High School Chemistry Teaching. He described some of the changes that have taken place in the chemistry classroom and discussed the effects of the new standards of learning and testing procedures. Dr. Eseonu presented Dr. Rademaker with a plaque and a gift from the Virginia Section to honor his achievements in chemistry and his service to the Virginia Section, including the office of Section Chair in 1999.



Bill Rademaker with his Distinguished Service Award plaque



Section Chair Dorothy Eseonu presents Bill with his award and gifts

Nine winners of the Virginia Section's Distinguished Service Award attended the September 22 meeting: Sheryl Baldwin (1996), Jim Beck (1991), Phil Burks (1998), Bill Kuhn (1985), Bill Rademaker (2006), Don Shillady (1992), Ann Sullivan (2005), Lidia Vallarino (2002), Bill Welstead (1983).



Left to Right:

Front Row: Ann Sullivan, Bill Welstead, Lidia Vallarino,

Back Row: Don Shillady, Bill Kuhn, Bill Rademaker, Phil Burks, Jim Beck

Not Shown: Dr. Sheryl Baldwin

2007 SECTION ELECTIONS

Election packages have been mailed to all active members of the Virginia Section. The ballot includes a change in the Section's By-Laws. Ballots must be returned by November 7. Dr. Joseph Pompano is the Chair of the Nominating Committee.

THE BULLETIN

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CAN YOU IDENTIFY THESE PERSONS?



The photograph is from 1992 when the three persons shown attended the September meeting of the Virginia Section at Virginia Commonwealth University. Two of them received degrees from James Madison University. The third holds a B.S. from Drexel Institute of Technology, an M.S. from Princeton University, and a Ph.D. from the University of Virginia. Two of them were from the Richmond area while the third lived near Harrisonburg.

Roy Gratz and Phyllis James were the "mystery persons" shown in the October Bulletin. Roy, who was Chair of the Virginia Section in 2000 is shown passing the Section gavel to Phyllis, the incoming Chair for 2001.

