



FEBRUARY MEETING NOTICE

**University of Richmond
Richmond, Virginia**

POWELL LECTURESHIP

Friday, February 21, 2014

DINNER: **6:00 p.m.**
Richmond Room
Heilman Dining Center

PROGRAM: **7:30 p.m.**
Auditorium
Gottwald Center for the Sciences

MENU: House Salad, Crab Stuffed Flounder, Rotisserie Chicken, Green Beans,
Red Mashed Potatoes, Apple Pie, Coffee, Iced Tea
Vegetarian Alternative—Orzo Pasta (**please specify vegetarian
dinner when making your reservation**)

PRICE: \$15.00 (no reductions)

**DINNER
RESERVATIONS:** Please make reservations for the Dinner by **NOON on Friday,
February 14** by calling the Chemistry Department at the University of
Richmond, (804) 289-8242 or by e-mail to amallory@richmond.edu.
NOTE: Space is limited for the dinner—make your reservation early!

HOST: Dr. Michelle Hamm, (804) 287-6327; mhamm@richmond.edu

SPEAKER: **Dr. Barbara Imperiali, Massachusetts Institute
of Technology**

TOPIC: **“Chemical Tools for the Study of Complex
Biological Systems”**

FEBRUARY 2014

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The W. Allan Powell Lectureship in Chemistry

Dr. Barbara Imperiali



Dr. Barbara Imperiali is the Class of 1922 Professor of Biology and Professor of Chemistry at the Massachusetts Institute of Technology. Dr. Imperiali received a B.Sc. (Hon) in Medicinal Chemistry at University College London in 1979 and a Ph.D. in Synthetic Organic Chemistry at MIT in 1983, working under the supervision of Professor Satoru Masamune. She then carried out postdoctoral studies at Brandeis University with the late Professor Robert Abeles. Dr. Imperiali began her professional career as an assistant professor at Carnegie Mellon University in 1986. In 1989, she joined the faculty at the California Institute of Technology where she earned the rank of Professor of Chemistry in 1997. In July 1999, Professor Imperiali assumed her current appointment at the Massachusetts Institute of Technology.

Imperiali is the recipient of a Sloan Foundation Fellowship (1993), a Dreyfus Teacher-Scholar Award (1993), the American Chemical Society Cope Scholar Award (1996) and the Caltech Feynman Prize for Excellence in Teaching (1998). At M.I.T. she has been awarded the School of Science Prize for excellence in undergraduate education (2002) and named a Margaret MacVicar Fellow (2003) in recognition of her contributions to education at the Institute. In 2001, Imperiali was inducted into the American Academy of Arts and Sciences, and in 2004 she was named a Fellow of the Royal Society of Chemistry. In 2006, Professor Imperiali received the American Chemical Society Breslow Award for Achievement in Biomimetic Chemistry, the Emil Kaiser Award of the Protein Society, and the du Vigneaud Award of the American Peptide Society. In 2010, Imperiali was elected into the National Academy of Sciences.

Research in the Imperiali group is concerned with diverse aspects of protein structure, function and design. Current activities focus on the design, synthesis and application of innovative chemical tools for the study of complex biological systems. In particular, sensitive and selective methods for profiling the dynamic fluctuations of enzyme activities, such as kinases, and protein/protein interactions are being developed for studies of cell migration, cell cycle control and the regulation of synaptic plasticity. Major progress has also been made in the application of encoded lanthanide-binding tags in structural and functional proteomics. On-going research also focuses on protein glycosylation. The recent discoveries of N- and O-linked protein glycosylation systems in prokaryotic pathogens has inspired research that focuses on understanding the roles of cell surface carbohydrates in infection and pathogenicity as well as new biochemical and biophysical approaches for understanding the molecular logic of N-linked glycosylation pathways and processes.

“Chemical Tools for the Study of Complex Biological Systems”

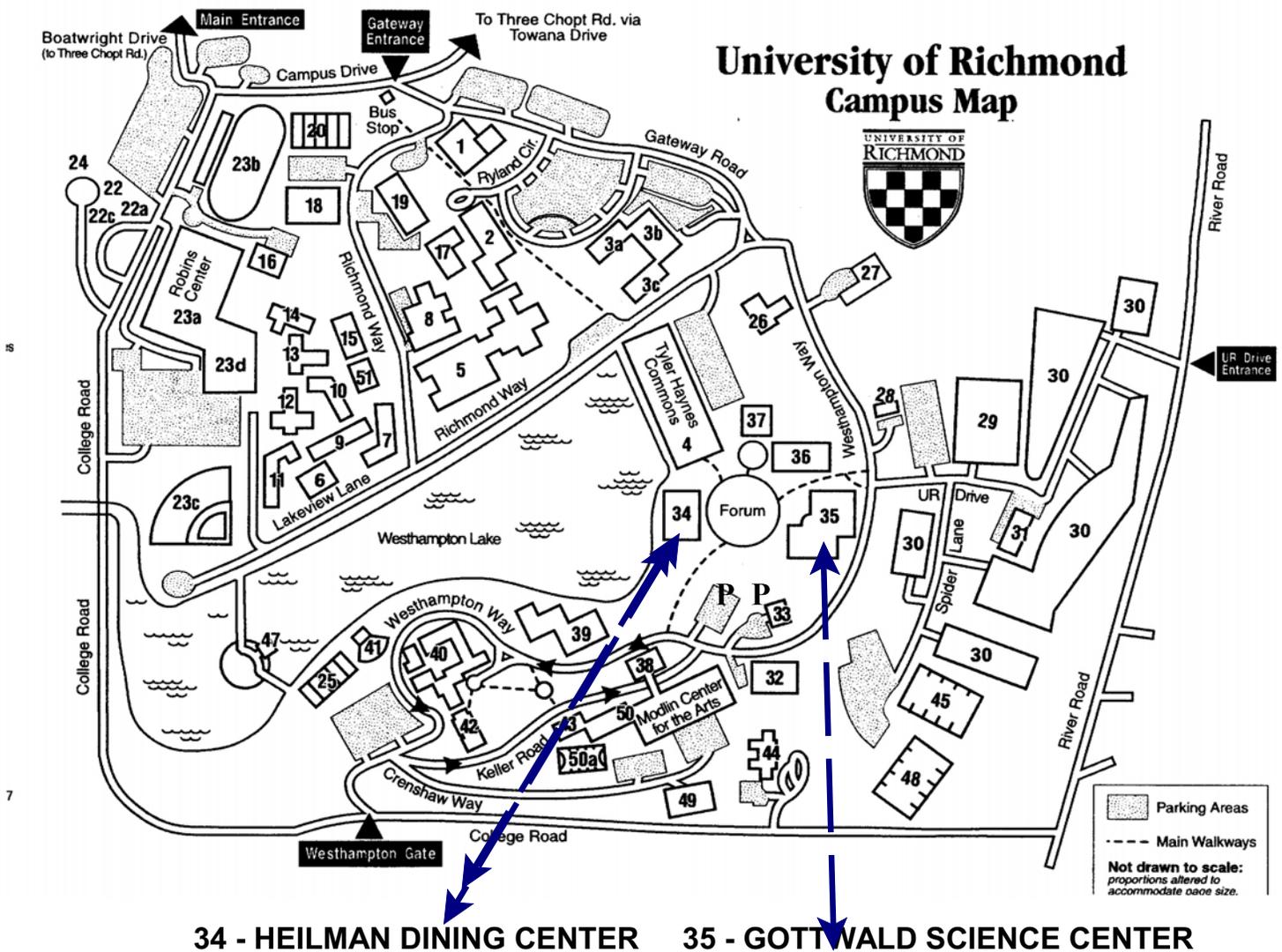
This presentation will discuss the development and application of new chemical probes for studying complex biological systems. Due to the essential signaling roles played by intracellular protein phosphorylation, the focus of recent studies in the group has been on protein kinases as critical targets for probe development. In the area of signal transduction, new approaches including general strategies for the assembly of synthetic and semi-synthetic probes for interrogating the specific function of proteins involved in directed cell migration and cell cycle control have been developed. These probes include novel fluorescent amino acids for interrogating the dynamics of protein kinase activities and phosphorylation-dependent protein-protein interactions in addition to methods for the assembly of caged phosphopeptides and proteins for examining phosphorylation-mediated cellular activities.

Ultimately, an arsenal of chemical probes for monitoring protein phosphorylation and chemically caged analogues of key phosphoprotein mediators will contribute to the understanding of the spatial and temporal profiles of protein kinases and phosphoproteins in complex cellular pathways.

DIRECTIONS

From I-64, take the Glenside Drive South exit (Exit 183A) and go about 1.5 miles to the 4th traffic light. Turn left on to Three Chopt Road and go about 0.8 mile. Follow the signs to the University of Richmond, turning right on to Boatwright Drive, then left on to Campus Drive. Turn right through the main gate on to Gateway Road. Continue on Gateway Road to the traffic island. Turn left on to Westhampton Way. Continue on Westhampton Way to the top of the hill. Parking is available in the three lots at the top of the hill. The Powell Reception and Dinner will be in the Richmond Room (downstairs) of the Heilman Dining Center (# 34 on the map below) which is across from the Gottwald Science Center (# 35). The program will be in the auditorium of the Gottwald Science Center (# 35). Note—there is no parking available in front of the Science Center. See the map below.

U OF R CAMPUS MAP



P = PARKING

*** VIRGINIA SECTION NEWS ***

FUTURE MEETINGS

DATE: March 14, 2014
LOCATION: Virginia State University
 Ettrick, Virginia
HOST: Dr. Colleen Taylor
PHONE: (804) 524-5481
EMAIL: cmtaylor@vsu.edu
SPEAKER: Dr. Jeffrey Seeman
TOPIC: "Humor and Humanness of Great Chemists of the 20th Century"



DATE: April 11, 2014 (note change in date)
LOCATION: University of Virginia
 Charlottesville, Virginia
HOST: Dr. James Demas
PHONE: (434) 924-3343
EMAIL: demas@virginia.edu
SPEAKER: Dr. David Hudson
TOPIC: "Ethics in Science"
UNDERGRADUATE RESEARCH POSTER SESSION



LINETTE WATKINS SELECTED AS COUNCILOR

The Executive Committee of the Virginia Selection has selected Dr. Linette Watkins to serve the remainder of an unexpired term as councilor. Dr. Watkins will fill the position vacated by Dr. Jerry Bass, who has retired after more than 22 years as a councilor for the Virginia Section. She will serve through 2014. Dr. Watkins is an Associate Professor in the Department of Chemistry and Biochemistry at Texas State University in San Marcos, Texas. She holds a B.S. from Trinity University and a Ph.D. from the University of Notre Dame. Currently, she is a councilor for the Central Texas Local Section of the ACS and the Membership Chair for that section. She is a former chair of the ACS Committee on Minority Affairs. Dr. Watkins will be moving to Virginia to take a position at James Madison University in Harrisonburg. She can be reached at (512) 245-3125; watkinslm@jmu.edu.



THE CHAIR'S CORNER



The January meeting was a great reminder of the strength of the section and the quality of its chemists. Kent Koller and Joe Pompano have had very productive careers in the industrial sector of chemistry and have made major contributions to their fields. Each, in their own way, has given back to the chemical community in the Virginia section. As Chair of the Chemistry Department at VCU, I am very pleased to note that they both received their PhD degrees from VCU.

Going forward, I hope that the section can continue to act as a nexus between industrial and academic chemistry in Virginia. The majority of chemistry graduates from Virginia's colleges and universities will find jobs in the chemical industry and provide the foundation for the section moving forward. This offers exceptional opportunities for matching future employees with future employers through interactions in the section.

February brings us the traditional Powell Lecture at the University of Richmond and shifts the focus to academic chemistry. This is an outstanding opportunity for students to interact with an eminent chemist, Dr. Barbara Imperiali. Please join us for another highlight event in the section.

...Scott Gronert, Section Chair sgronert@vcu.edu



CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

February 21 - **Professor Jay Groves**, Princeton University, "Metalloporphyrins in Chemical and Biological Catalysis—From C-H Hydroxylation to Fluorination"

February 25 - **Wilma Subru**, Subra Company, "Educating and Empowering Justice Communities to Identify and Address Chemical Exposure and Human Health Impacts Associated with Industrial Facility Operations" (Graham Lecture)

February 28 - **Professor Matt Holden**, University of Massachusetts, "Caught in the Act: Direct Observation and Quantitation of Molecular Transport across Membranes" (Page-Barbour Transduction Project)

March 21 - **Professor Tatyana Igumenova**, Texas A&M University

April 4 - **Professor Andrew Feig**, Wayne State University

April 11 - **Professor Greg Hillhouse**, University of Chicago, "Unusual Reactivity of 2-Coordinate Complexes of Ni(I) and Ni(II)"

April 18 - **Professor Jim Skinner**, University of Wisconsin

April 25 - **Professor Michael Fayer**, Stanford University, "Water Dynamics in Nanoconfined Systems" (Jefferson Lecture)

May 15 - **Professor Peter Dervan**, California Institute of Technology, "Molecular Recognition of DNA by Small Molecules. Fundamentals to Applications" (Hecht Lecture)

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://chem.virginia.edu/events-seminars/>.

...A LOOK BACK...

Some past meetings of the Virginia Section:

One Year Ago: February 8, 2013, Virginia State University – Brent Gunnoe, University of Virginia, "Development of a Domestic Energy Base: Chemistry in the Center for Catalytic Hydrocarbon Functionalization"

Five Years Ago: February 6, 2009, University of Richmond – Timothy Swager, Massachusetts Institute of Technology, "Polymer Electronics for Chemical and Biological Sensors"

Ten Years Ago: February 20, 2004, University of Richmond – Edward Taylor, Princeton University, "The Discovery of Alimta, A Broadly Effective New Antitumor Agent"

25 Years Ago: February 24, 1989, University of Richmond – Robert Huggett, Virginia Institute of Marine Science, "Organic Pollutants in the Chesapeake Bay"

50 Years Ago: February 28, 1964, Richmond – M. H. Arveson, American Chemical Society, "ACS and You"

60 Years Ago: February 15, 1954, University of Richmond, Richmond – Alsoph Corwin, Johns Hopkins University, "Colors of Life"

VALENTINE WEBINAR

The ACS will present a special webinar, *Love Potion # 9*, on Tuesday, February 11. You can participate in the webinar and share in some hands-on activities in a program at John Tyler Community College in Chester. It begins at 6:30 p.m. in Room 124 of Bird Hall. See the flyer below and contact Dr. Kristine Smetana for more information or to volunteer with the networking activities: (804) 706-5143; ksmetana@jtcc.edu.

Love Potion # 9

The Chemistry of Scent & Fragrance

Lure a loved one with chemistry this February!



Tuesday, Feb. 11, 2014

- 6:30 pm ET *Networking/*
- 7:00 pm ET *Webinar*
- 7:30 pm ET *Live Q&A*

Speakers:

Ms. Virginia Hutchins,
Perfumer, Procter & Gamble

Dr. Jianjun Li,
Principal Scientist, Procter & Gamble

Dr. Diane Schmidt,
Section Head R&D, Procter & Gamble
2014 ACS President-Elect

Networking:

Chemists from Pfizer
Faculty from area colleges



**John Tyler
Community College
Chester Campus**

**Bird Hall
Room 124
Hands-on Demonstration**

A Collaboration with ACS Younger Chemists Committee, ACS Careers, and ACS Webinars
Sponsored by the VA Section of the ACS and the JTCC Chemistry Club

CHEMISTRY AT THE UNIVERSITY OF RICHMOND

The Chemistry Department at the University of Richmond is located in the Gottwald Center for the Sciences along with the Departments of Biology and Physics. Offering both the B.S. and B.A. degrees in Chemistry and Biochemistry/Molecular Biology, the department provides excellent preparation for work or professional studies in chemistry, biochemistry, the health sciences, and chemical engineering, as well as for teaching or for legal careers. The department meets certification requirements by the American Chemical Society for the B.S. in Chemistry and in Chemistry/ Biochemistry.



Our students receive a strong background in chemistry in an atmosphere of activity and support from an able and enthusiastic faculty. Class sizes are never greater than 40 and upper level classes and teaching laboratory sections generally have less than 20. Students enjoy the use of a wide variety of modern instrumentation both in their teaching laboratories and in research experiences. Many of our students present the results of their research work to the scientific community both by presentation at meetings on and off campus and in publications. They have the opportunity to grow and learn in an exciting and supportive setting, and when their undergraduate days are over, they find that they are well prepared for their next endeavor.

The chemistry major at the University of Richmond provides a strong basic background in the major sub-disciplines of chemistry (analytical, inorganic, organic, physical and biochemistry). Richmond graduates are ready to enter the best chemistry graduate programs in the country, to enter the work force as chemists in industry and government, to proceed into careers as secondary school teachers, or to develop careers in sales and marketing for technical industry. The major also provides an excellent background for studies in medicine, the allied health professions, and law. The number of students graduating with a major in chemistry has been between 12 and 20 for the past few years. The majority of our students participate in research sometime during their program. About half of recent graduating chemistry majors entered graduate programs in chemistry or related fields.



A \$35 million renovation and expansion of Gottwald Center for the Sciences was completed in 2005. New space (approximately 28,000 sq. ft.) was added to the south and west sides of the building to provide faculty offices and research labs, and the original space (162,000 sq. ft.) was renovated to include the addition of cutting-edge technology and space for scientific equipment. Our facility includes a new atrium, new and renovated research laboratories, and an entrance more closely aligned with the Collegiate Gothic architecture of other campus buildings. Flexibility to add future teaching and research technologies was designed into the project. Upgrading Gottwald was part of the University's \$50 million plan to improve science facilities and programs over this decade and to place Richmond among the first-choice colleges of America's top high school science students. Over this decade, the University has added 18 new faculty positions and placed greater emphasis on inter-disciplinary studies and innovative science classes for non-majors.

WORDS OF WISDOM FOR FEBRUARY: **“You Are Never Too Old To Dream A New Dream”**

SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY

February 11 - **Dr. Cynthia Dowd**, George Washington University, "Dxr Inhibitors to Combat Mycobacterium Tuberculosis and Other Human Pathogens"

February 13 - **Dr. John Hackett**, VCU Massey Cancer Center

February 20 - **Dr. Lei Zhu**, Florida State University, "Chelation-assisted, Copper(II) Acetate-Catalyzed Azide-Alkyne Cycloaddition and Amine Dehydrogenation"

February 27 - **Dr. Chris Senanayake**, Boehringer Ingelheim

March 6 - **Dr. Qiaosheng Pu**, Lanzhou University, China

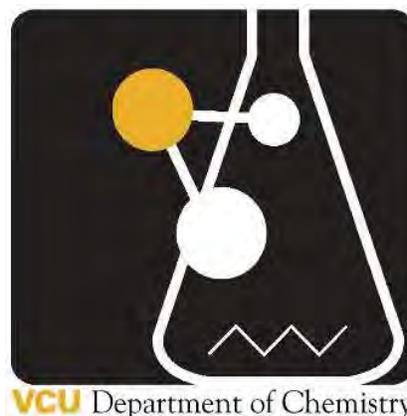
March 20 - **Dr. Richard Vachet**, University of Massachusetts

April 3 - **Dr. Michael Schultz**, McGuire VA Medical Center

April 10 - **Dr. Indika Arachchige**, VCU Department of Chemistry

April 17 - **Dr. Charles Winter**, Wayne State University

April 24 - **Dr. Naomi Halas**, Rice University **(Kapp Lecture)**



Seminars are held at 3:30 p.m. in Room 1024, in the Physical Science Wing of Oliver Hall, 1001 West Main Street, Richmond. For more information, call (804) 828-1298.

THE POWELL LECTURESHIP

Dr. W. Allan Powell served the University of Richmond continuously for 34 years. For 23 of those years, he was chairman of the Chemistry Department. Dr. Powell served as the premedical and pre-dental advisor from 1959 to 1986. He was a very important part of the scientific community in Virginia, serving both on a national and regional basis in the American Chemical Society and in numerous capacities for the Virginia Academy of Sciences.

In honor of Dr. Powell, the Department of Chemistry established the W. Allan Powell Lectureship. The endowed lectureship is a regional program devoted to specific advances in the chemical sciences and each year complements the Virginia Section of the American Chemical Society at the University of Richmond. Dr. Powell passed away in 2010, but his legacy lives on in the annual W. Allan Powell Lectureship.

PAST POWELL LECTURESHIP SPEAKERS

1988 - Gary Hieftje	2001 - Orville Chapman
1989 - Jerrold Meinwald	2002 - Michael Marletta
1990 - Dudley Herschbach	2003 - Robert Crabtree
1991 - Koji Nakanishi	2004 - Edward C. Taylor
1992 - Mark S. Wrighton	2005 - Charles L. Liotta
1993 - Nicholas J. Turro	2006 - Donald H. Levy
1994 - Herbert C. Brown	2007 - Sunney Xie
1995 - Mary L. Good	2008 - Roald Hoffmann
1996 - David A. Evans	2009 - Timothy Swager
1997 - Gertrude B. Elion	2010 - Kenneth Pierce
1998 - Ronald Breslow	2011 - Harry B. Gray
1999 - Royce W. Murray	2012 - Robert G. Griffin
2000 - Sidney Hecht	2013 - Emily A. Carter



Dr. W. Allan Powell

CHEMICAL EDUCATION GRANTS

The Virginia Section awards small grants to support science projects in grades K through 12. The \$50 to \$500 mini-grants are provided to teachers in the Virginia Section for the purpose of equipment and materials. The grants are reviewed by the Chemical Education Committee, chaired by Dr. Ryan Warren. More information and the grant application can be found on the Virginia Section website: <http://virginia.sites.acs.org/>. Click on "About Us" at the top of the homepage, then on "Chemical Education" from the drop down menu.

Here are two grants that recently were approved:

\$500 to the **MathScience Innovation Center** for "Captivating Chirality" Models. Robin Newton and Patricia Miller requested funds materials to use in creating models with a 3-D printer. The models that illustrate chiral molecular structures and outward crystal forms will be used in sample kits for teaching about chirality.

\$500 to **Thomas Jefferson High School** in Richmond to purchase laboratory supplies that will support the AP/IB chemistry programs that emphasize guided/open inquiry. Denise Coleman Millner requested funds to implement new laboratory exercises that are part of the redesigned AP Chemistry curriculum and also will be utilized in the IB Chemistry curriculum.

CHEMISTS CELEBRATE EARTH DAY (CCED) 2014



The CCED 2014 theme is the "Wonders of Water", exploring the unique properties of water that crucial for life and a cleaner environment. CCED seeks to bring international focus to environmental causes, such as clean air, water, and energy. ACS offers events, contests, and educational resources for members, chemical educators, and chemistry enthusiasts to illustrate the positive role that chemistry plays in preserving the Earth.

Earth Day was first officially recognized on April 22, 1970 as a way to demonstrate support for a healthy environment, raise awareness about environmental issues, and remind people that we all need to contribute to a sustainable planet. For years, chemists have been promoting a better world through recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives. The American Chemical Society joined the Earth Day celebration on April 22, 2003. There have been annual *Chemists Celebrate Earth Day (CCED)* events ever since.

Each year, ACS highlights one of four general topics (water, air, plants/soil or recycling) and chooses a specific "theme name" under the topic to focus the CCED celebration. ACS local sections, Student Member Chapters, and divisions are encouraged to take part in the celebration, particularly the annual community event. Additionally, hands-on activities have been developed for CCED celebrations, and it is hoped that ACS members, chemical educators, and chemistry enthusiasts will use them to illustrate the positive role that chemistry plays in the world.

The Virginia Section will be participating in CCED this year. Dr. Kristine Smetana, Chair of the Section Committee on Community Activities, will be organizing the activities. Contact her at ksmetana@jtcc.edu or (804) 706-5143 with suggestions for CCED events and to volunteer your assistance. Look for more information in the March issue of the Bulletin.

STEP-UP FOR DOWN SYNDROME 5K



On October 10, 2013, the Virginia Section participated in the Step-Up for Down Syndrome 5K at a shopping mall in Richmond. Members of the Chemistry Club at John Tyler Community College worked with faculty and other ACS members to provide many different activities for the children who attended. Teachers who work with children who have disabilities were given special instructional kits for classroom and at-home work. This was the second year of Virginia Section participation in a Down Syndrome event. Last year, the ACS recognized the Section's work with a ChemLuminary Award. Dr. Kristine Smetana, Chair of the Committee on Community Activities for the Virginia Section, organized the events in both 2012 and 2013.



2014 CHEMISTRY OLYMPIAD

The Virginia Section will host the 2014 Chemistry Olympiad for all high school chemistry teachers and students who are interested in participating. The **deadline for registering students** for the first and second year examinations is **February 22** or two weeks prior to the test date. The Virginia Section exams will be administered between February 28 and March 26. The students who do well in the local competition will be nominated to compete in the national competition; that examination will be given on April 19 at J. Sargeant Reynolds Community College in Richmond. The 2014 International Chemistry Olympiad will be held in Hanoi, Vietnam in July. For more information and the application forms, go to the Virginia Section website at <http://virginia.sites.acs.org/>. Click on **Activities** at the top of the home page, then on **Chemistry Olympiad**. Dr. Ann Sullivan is the coordinator for the Chemistry Olympiad in the Virginia Section; asullivan@reynolds.edu; (804) 943-2591.

JUDGES NEEDED FOR METRO RICHMOND STEM FAIR



The Metro Richmond STEM Fair is an affiliated regional fair of the Intel International Science and Engineering Fair (Intel ISEF). The STEM Fair is Central Virginia's qualifying fair for the Intel ISEF and the Broadcom

MASTERS Competition. It is funded by the MathScience Innovation Center (MSiC) and the MSiC Foundation. This year's fair will be held at Clover Hill High School on **March 15, 2014**. The Virginia Section of the ACS is a supporter of the Metro Richmond STEM Fair.

The Fair is Central Virginia's regional qualifying science fair for 7th - 12th grade students. Students compete in either the Junior (grades 7 & 8) or Senior (grades 9 - 12) Division. Past winners at the Fair have gone on to national and international competitions. Since 2003, the MRSF has sent 18 students to compete in international competitions, with 14 of them winning either a category or organizational award.

Judges are needed for the STEM Fair! The Metro Richmond STEM Fair has 250 – 300 students exhibiting their projects on Fair Day. The students are divided into Junior (grades 7-8) and Senior (grades 9-12) Divisions, and into subject categories within the Divisions. Teams of two or three judges will review the project displays in their section and interview each of the students individually. Each judging section consists of approximately twelve projects. Judges begin their day at 7:15 a.m. and are usually finished before 2:00 p.m. Breakfast and lunch are provided. Contact Martha Vogel to volunteer your help: mvogel@msinnovation.info; (804) 343-6535, ext. 231.

VIRGINIA ACADEMY OF SCIENCE ANNUAL MEETING

Virginia Commonwealth University
May 14-16, 2014



CALL FOR PAPERS

The 92nd Annual meeting of the Academy will be held at Virginia Commonwealth University in Richmond on May 14-16. Titles for papers should be sent to the Secretary of the Chemistry Section by Friday, **February 7, 2014**. Oral presentations will be scheduled on May 15. There will be a Poster Session for all Sections that will be set up and stay up all day Thursday, May 15. To submit an oral presentation or poster, send the title and author(s) to Tom DeVore, Chemistry Section Secretary, at devore@jmu.edu. Note that the presenting author must be registered for the VAS meeting and at least one author must be a member in good standing of the Academy. Abstracts of papers will be collected electronically in the spring prior to the Annual Meeting. Full information about paper submission and about Academy membership can be found on the Academy's website: <http://www.vacadsci.org>.

JUDGES NEEDED FOR VIRGINIA JUNIOR ACADEMY OF SCIENCE

The Virginia Junior Academy of Science will hold its 2014 VJAS Research Symposium at Virginia Commonwealth University on Wednesday, May 14. Approximately 750 students in grades seven through 12 will report on original research. Judges are needed in all fields, for both middle school and high school projects. Areas for judging include Chemical Science (middle school), Chemistry (High School), and Environmental Science (High School). To volunteer your help in judging the student work, contact Susan Booth, VJAS Director, at susan.science@gmail.com.

NEW OFFICERS OF THE VIRGINIA SECTION



Past Chair Joe Crockett passes the Section Gavel to incoming Chair Scott Gronert. The exchange occurred at the Executive Committee meeting on January 18, 2014.

**2014 OFFICERS:****Todd Koch - Chair-Elect****Scott Gronert - Chair****Denise Waters - Vice Chair****Dustin Haddenham - Secretary****Stephanie Mabry - Treasurer**

(left-to-right)

CAN YOU RECOGNIZE THIS PERSON?

The date of the photo is unknown. A renowned organic chemist, the subject spoke to the Virginia Section at the University of Virginia on March 12, 1954. His topic was "Some Aspects of the Chemistry and Biochemistry of Cholesterol." He was a Professor at Harvard University at the time of his visit to Charlottesville for the presentation to the Virginia Section. Born in 1899, he received his Ph.D. from Harvard in 1924, working with James Bryant Conant. In 1943 he invented the militarily effective form of Napalm. He did the first synthesis of Vitamin K, synthesized quinones for use as antimalarial drugs, and did work leading to the synthesis of cortisone. He and his wife Mary were known for the classic series *Reagents for Organic Synthesis*. Two chemical reagents are named for him. He died in 1977.



The "mystery person" shown in the December, 2013 Bulletin was Jerry Bass, who retired recently as a councilor for the Virginia Section. The photograph on the left is from 1971 when Jerry was a candidate for chairman of the Section. The one on the right is a recent photo. You can find Jerry's "Rambling Recollections" of his years in the Virginia Section in the December Bulletin. Go to <http://www.virginia.sites.acs.org/> and click on The Bulletin at the top of the home page.

**QUESTIONS FROM THE PAST**

This question was asked in the November, 2013 issue of the Bulletin: In October, the Virginia Section celebrated National Chemistry Week (NCW). The section has participated in NCW since its inception in 1987 as National Chemistry Day. There were a variety of activities throughout the Section on Friday, November 6, 1987 to celebrate that first National Chemistry Day. **Can you remember any of those NCD-1987 activities?**

Governor Gerald L. Baliles issued an official state proclamation to officially recognize November 6, 1987 as Chemistry Day in the Commonwealth of Virginia. He called upon all citizens of Virginia to “recognize the contributions of chemistry and to extend to chemists and chemical engineers of this state our deep appreciation and best wishes as they pursue the search for new knowledge that will be of benefit to people everywhere.” The mayors of Charlottesville, Colonial Heights, Harrisonburg, Hopewell, Petersburg, and Williamsburg issued similar official proclamations in honor of Chemistry Day.

The Virginia Section joined with the Science Museum of Virginia to sponsor a Crystal Growing Contest. Participants were provided kits to enable them to grow alum crystals. Textile Chemical Company donated the alum and VWR Scientific contributed vials for the kits. Over 500 crystal kits were distributed. Prizes were awarded for the largest single crystal, the most interesting cluster, the clearest crystal, and the most perfectly-shaped crystal. Winning entries were displayed at the Science Museum.

The Section held a special National Chemistry Day meeting in Waynesboro. This was a joint meeting of the ACS and the AIChE; Dr. Stanley Proctor, national president of the AIChE, spoke on “The Changing Chemical Profession.” The meeting also featured tours of the DuPont Company facility in Waynesboro.

What Chemists Do, a day of displays and demonstrations, was held at the Science Museum of Virginia in Richmond. Section members Mark Hellberg, Mary Hobbs, Jim Quagliano, Barry Riddle, Sarah Rutan, Don Shillady, Eddie Thomas, Lidia Vallarino, Sheila Mertz, and Jim Beck showed “What Chemists Do.” Visitors to the Science Museum were given free NCD materials. The Section also provided a variety of materials to teachers and to others. Special NCD items included buttons, balloons, decals, brochures, career booklets, posters, a special issue of *ChemUnity* magazine, T-shirts, and bumper stickers. Financial contributions for NCD materials were provided by Albright & Wilson, Inc. and the E. I. DuPont de Nemours Company.

Companies and schools within the Virginia Section held special National Chemistry Day activities. Philip Morris USA invited high schools in Richmond and three nearby counties to take part in a “Visiting Scientist” program. School groups were also invited to visit the Research and Development Department at the Philip Morris Research Center. Eighteen schools participated in these programs, with Philip Morris scientists speaking to nearly 3,200 students. Albright & Wilson Americas invited students and teachers from Hanover County high schools to their new research facilities in Ashland. The company donated \$1,000 to Hanover County Public Schools for purchasing teaching materials. They also held an Open House for representatives of state and local governments and educators.

A new question: Between the years 1953 and 1974, the Virginia Section met 29 times in one of the cities within the Section. At least twelve of those meetings were held at a hotel and five more there after it became a motor inn. Other meetings in that city were held at the Howard Johnson Restaurant, the Westwood Hotel and the high school. The 1974 meeting in the city was on October 11, 1974, when Dr. Foil Miller of the University of Pittsburgh spoke on “Great Mistakes in Science.” The last meeting of the Section that was held in that city was a special National Chemistry Day program in 1987. **What is this city that has not hosted a Section meeting for over 25 years?** Extra points for the name of the hotel/motor inn where many of the meetings were held.

NATIONAL CHEMISTRY WEEK – 2013

The theme of NCW-2013 was **Energy—Now and Forever!** The Virginia Section celebrated National Chemistry Week on October 20 with an afternoon of programs and activities at the Science Museum of Virginia in Richmond. Dr. Kristine Smetana, Chair of the Section's Community on Community Activities, organized the NCW events. Over 300 children participated, engaging in a variety of hands-on science activities, ranging from thermal slime to volcanic eruptions to recycled robots. Science kits were provided to teachers who attended the event at the Science Museum. Over 80 volunteers from the Section helped with the activities. These included ACS members, faculty and students from John Tyler Community College and J. Sargeant Reynolds Community College, and students from two high schools and four middle schools.



KRISTINE SMETANA – CHEMIST IN THE REAL WORLD



Dr. Kristine Smetana, Professor of Chemistry at John Tyler Community College, has been featured in an article on “Chemists in the Real World.” The article is in the *College to Career* section of the ACS website: <https://www.acs.org/content/acs/en/careers/college-to-career/chemists.html> where there are examples of persons who have used their background in chemistry in a variety of career options.

The article on Kristine is part of a section on education and includes several photographs and a four-page interview with her. Here is the introductory paragraph of the article:

Kristine Smetana began teaching at John Tyler Community College in 2000, while she was still in graduate school and working to defend her dissertation. In addition to teaching and advising students, she is the founding faculty advisor for her college’s Chemistry Club, and has been heavily involved with the club’s activities in support of National Chemistry Week since 2005. She is also a member of the ACS executive committee of Virginia, and has been highly active in the community outreach activities hosted by her ACS local section.

As a Councilor for the Virginia Section, Dr. Smetana regularly attends the national ACS members and is active on the ACS committee on two-year colleges. She is chair of the Community Activities Committee for the Section and organizes activities for National Chemistry Week (NCW) and Chemists Celebrate Earth Day (CCED). She has developed an extensive chemistry program for the Step-Up for Down Syndrome event in Richmond. Her community outreach activities have resulted in the Virginia Section receiving several ACS ChemLuminary awards.

Here is another quote from the ACS article on Kristine. This is her answer to the interviewer’s question, Do you have any special talents or traits that make you a great fit for your job?

My students have described me as very energetic and having a passion for chemistry. They say they always smile coming to class, in class and leaving class. I have very few people who drop during the semester. It seems they have “fun” learning. I do not think of myself as the typical chemistry professor but I do get my students involved in all of our chemistry outreach activities, where they become the teacher. I try to make sure the students have memorable experiences, and especially strive to teach them how the world would not exist without chemistry!

