



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

NOVEMBER MEETING NOTICE

**University of Mary Washington
Fredericksburg, Virginia**

Friday, November 4, 2016

Social Hour: 5:00 p.m.
Home Team Grill
1109 Jefferson Davis Hwy.

Dinner: 5:30 p.m.
Home Team Grill

PROGRAM: 7:00 p.m.
Digital Auditorium
Hurley Convergence Center, 1301 College Avenue (off Campus Walk)

MENU: Chicken Broccoli Alfredo or Broccoli Alfredo, Salad, Garlic Bread, Brownies, Cookies, Beverages. Cash Bar.

PRICE: ACS Members & Guests - \$20.00
High School Students, College Students, High School Teachers - \$10.00
Retired ACS Members & Spouses, Retired Teachers & Spouses - \$15.00

DINNER RESERVATIONS: Please make reservations by **NOON** on **Monday, October 31** by calling Nicole Johnson at (540) 654-1016 or by e-mail to nargenzi@umw.edu

HOST: Dr. Janet Asper, (540) 654-1143; jasper@umw.edu

SPEAKER: **Dr. Jeffrey I. Seeman, University of Richmond**

TOPIC: **“Responsible Conduct of Research: Lessons from History & the Human Side of Science”**

OCT/NOV 2016

S	M	T	W	T	F	S
30	31	1	2	3	4	5
<i>reservations</i>			<i>meeting</i>			
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20	21	22	23	24	25	26
27	28	29	30			

DR. JEFFREY I. SEEMAN

Jeffrey I. Seeman (University of Richmond) has more than 170 publications and patents, in fields as diverse as natural products chemistry, chemical physics, flavor technology, responsible conduct of research (RCR) and the history and sociology of chemistry. He was the creator and editor of the series of 20 autobiographies of eminent chemists entitled *Profiles, Pathways and Dreams*. He created and runs the Citation for Chemical Breakthrough Award program for the Division of the History of Chemistry (HIST) of the American Chemical Society. He has served as Chair of HIST, on the Board of Directors of the Chemical Heritage Foundation (CHF), as Chair of the Heritage Council of CHF, and on the advisory boards of the Petroleum Research Fund, *The Journal of Organic Chemistry* and *Accountability in Research*. Seeman served as a Guest Editor for *The Chemical Record*, for the publication of the "Tetsuo Nozoe Autograph Books" and accompanying essays during 2012-2015, and Guest Editor for *Accountability in Research* for a series of papers on RCR within the chemical community. He produces videos for educational purposes including documentaries of eminent chemists.

“Responsible Conduct of Research: Lessons from History & the Human Side of Science”

“Responsible conduct of research is simply good citizenship applied to professional life.” -- Nicholas H. Steneck

Doing science is far more than performing the steps enumerated in the scientific method. Certainly the procedures used by scientists while conducting a scientific inquiry are critical to success. But so are the human components of the scientific processes. We all know, however, the human interactions are not always as simple as we would wish. Some even think, “If everyone did it my way, life would be perfect.” Scientific societies such as the American Chemical Society provide codes of conduct that can serve as useful guidelines in the responsible conduct of research (RCR) – if scientists know about them and decide to rely on them. This seminar will focus on several historically-interesting and controversial events in chemistry (including the E. J. Corey claim of plagiarism against R. B. Woodward) which will illustrate various principles in RCR. In addition, one subject near-and-dear to the heart of most scientists – credit for one’s work – will be discussed using the results of a survey the speaker conducted of academic chemists in Ph.D. granting institutions in the United States.

LIVE INTERNET STREAMING OF THE NOVEMBER 4 MEETING

Can’t make the November 4 meeting at the University of Mary Washington? Catch the meeting live by going to this website: <http://convergence.umw.edu/umwdalive/> (you may need to cut the url and paste it into your Internet server). Not available after the live event.

HAPPY THANKSGIVING



Directions and Map

Fredericksburg is located just off I-95, about 50 miles north of Richmond. The **Home Team Grill** is at 1109 Jefferson Davis Highway in the Eagle Village Shopping Center. It is directly across from the University of Mary Washington at the corner of U.S. 1 and College Avenue. Parking is available around the restaurant or in the parking garage directly behind the Home Team Grill. Alternatively, you can park on campus in the Jepson Science Center parking lot and walk over the pedestrian bridge to the restaurant.

The Hurley Convergence Center is on the north side of the UMW campus. There is on-street parking along College Avenue. Alternatively, you can park in the Jepson Science Center parking lot; the Hurley Convergence Center is across Campus Walk from the Jepson Science Center.

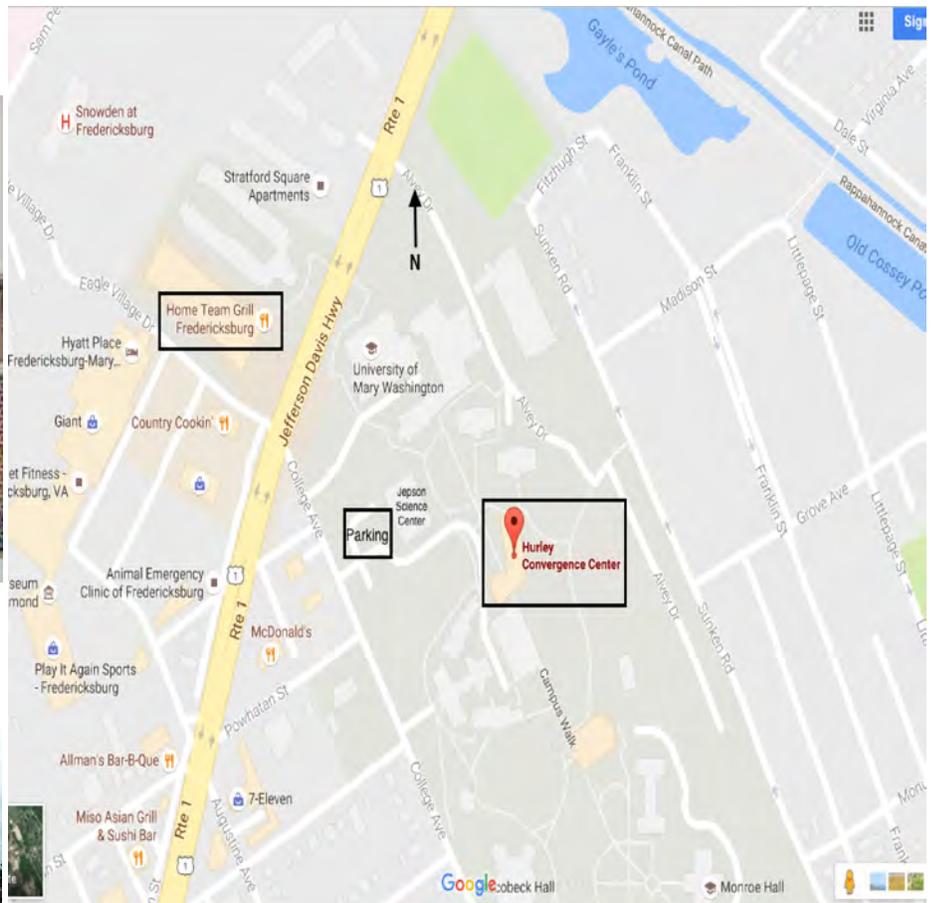
To reach the Home Team Grill, College Avenue, Jepson Science Center, and the Hurley Convergence Center, take Exit 130-A from I-95 and follow Route 3 East Business to the traffic light for William Street. Turn left on to William Street, then left at the next traffic light on to College Avenue.

There is handicapped parking to the south side of the Jepson Science Center. Proceed to the right in the Jepson parking lot. The handicapped spaces are alongside of the building, heading toward the Hurley Convergence Center.

Home Team Grill



Hurley Convergence Center





CHEMISTRY AT THE UNIVERSITY OF MARY WASHINGTON

The chemistry program at the University of Mary Washington is beginning its seventeenth year in the Jepson Science Center. Eight full-time faculty teach a traditional chemistry major with 10-15 graduating seniors each year. The department's program is approved by the ACS, and it offers an ACS-certified degree as an option. In addition to the usual courses in organic, analytical, and physical chemistry, a full year of biochemistry with lab is available as an elective, as are courses in inorganic chemistry with lab and general chemistry and analytical programs use several cooperative, discovery-based experiments in the laboratory. The Jepson Science Center provides student research space and modern teaching labs, with state-of-the-art multimedia and Internet capabilities. The department is well-equipped, providing all students with hands-on experience with a variety of techniques and instruments, including 60 and 300 MHz H-NMR and C-NMR, FT-IR, GC/MS, ICP-AES, and scanning probe microscopy. Many students do undergraduate research and have presented their results at local, regional, and national meetings. UMW chemistry graduates have earned advanced degrees at schools such as UVA, VCU, Princeton, Florida, Johns Hopkins, and Maryland and medical degrees at UVA, MCV, and EVMS. Other graduates have gone directly to work at government labs including NIH, the DEA, and the Patent Office, or in industries such as Dow Chemical, Philip Morris, PPD, Evonik, and Dominion Power.

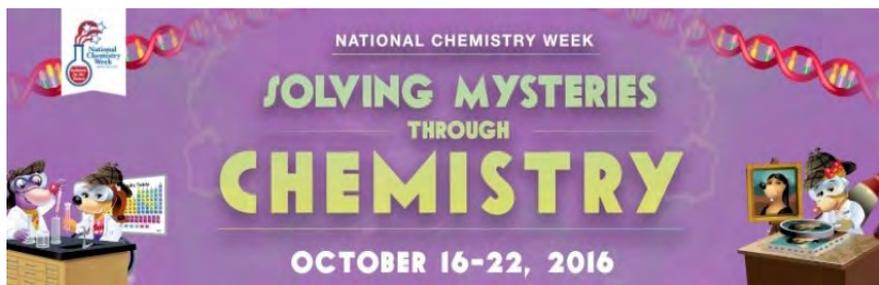


THE CHAIR'S CORNER



I continue to be amazed by all of the great work that is being done in our Section. October included programs to build careers and to educate members and students. The month will end with fun activities to engage children with Chemistry. It's been an exciting year, but there is more to come. I hope to see many of you at our November monthly meeting. In addition, I would like to invite our Section members to attend a special Executive Committee meeting on December 10th from 9:00 – 11:00 AM at the historic Hollyfield Manor. The purpose of the meeting is to review the process used to develop the strategic plan and to host an open discussion on the goals and strategies included in the plan. I hope that many members will attend to learn more about where our Section is going in the future and how each of you can become involved.

...Denise Walters, 2016 Section Chair - denise.walters@pfizer.com

***** VIRGINIA SECTION NEWS *******NATIONAL CHEMISTRY WEEK — 2016**

National Chemistry Week (NCW) is celebrated each year in October. The NCW 2016 theme of “**Solving Mysteries Through Chemistry**” will focus on forensic chemistry. This year’s NCW activities will include the popular Illustrated Poem Contest and an NCW Community Event. There will be a

special edition of the kid-friendly hands-on activity publication *Celebrating Chemistry*, and a variety of other educational resources for teachers, students, and the general public. Visit the NCW website at www.acs.org/ncw for more information on national activities.

There will be a number of National Chemistry Week activities in the Virginia Section. Colleges and universities, ACS student affiliate groups, chemistry clubs, companies, and organizations will have special events. There will be a day of activities at the main branch of the Children’s Museum of Richmond. It is located at 2626 West Broad Street in Richmond, adjacent to the Science Museum of Virginia. The NCW event will be held from **10:00 am until 4:00 pm on Sunday, October 30**. **Dr. Kristine Smetana**, Chair of the Section’s Community Activities Committee, is coordinating this event. Contact her for more information or to volunteer your assistance: kristine-chris@msn.com.

THE GREAT PUMPKIN PERIODIC TABLE EVENT

A periodic table made from pumpkins carved with symbols for the elements will be assembled on the lawn of the **Science Museum of Virginia** on **October 29**. The event will take place from 10:00 am until 4:00 p.m. The finished periodic table of pumpkins will then be displayed on Sunday, **October 30** during the Spooky Party at the **Children’s Museum of Richmond**, from 10:00 am until 4:00 pm. The Science Museum is located at 2500 West Broad Street in Richmond and the Children’s Museum is adjacent to the Science Museum. The carved pumpkins will then be moved to **Hollyfield Manor**, 689 Hollyfield Lane, Manquin, Virginia 23106, where the pumpkin periodic table will be assembled on **October 31** for Halloween.

This activity is being organized by the Virginia Commonwealth University, Virginia State University, and Virginia Union University ACS/NOBCChE joint affiliate chapters in celebration of the month of National Chemistry Week.

We are hoping to get involvement from other colleges, high schools and middle schools in the section in carving the template elements into the pumpkins. If needed, we will deliver and pick up the pumpkins, depending on your school's location, or they can be carved on site with the VCU, VSU and VUU volunteers on the 29th. Currently, we have volunteers for the f block elements, the noble gases, the halogens, and the IB and IIB coinage metals. Pick your favorite elements and get involved today, or help with transportation of the pumpkins to the various locations.

Enjoy apple cider and treats while meeting your local student affiliate leaders during the final assembly at Hollyfield Manor on the 31st from 6:00 pm until 9:00 pm. Dress up as your favorite element!

We thank several Walmart stores in the area for their help in providing donations to purchase some of the pumpkins for the project.

Contact **Colleen Taylor** for more information and to get involved: cmtaylor@vsu.edu.

2017 MEETINGS OF THE VIRGINIA SECTION

Here is the tentative schedule of Section meetings for winter and spring:

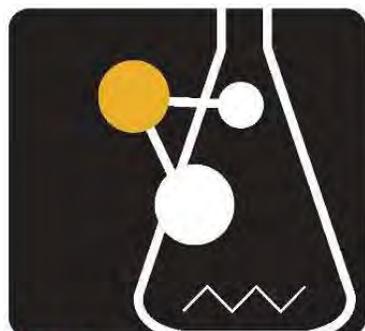
January 20 - Virginia Union University, Richmond - Annual Awards Meeting

February 17 - University of Richmond - W. Allan Powell Lectureship

March 16 - Altria Center for Research and Technology, Richmond

April 14 - University of Virginia, Charlottesville - Undergraduate Research Posters

CHEMISTRY SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY



VCU Department of Chemistry

Nov. 3 - **Dr. Michael T. Bowers**, University of California, Santa Barbara, "Non-Covalent Peptide Assembly: The Latest News" (John B. Fenn Memorial Lecture) [Academic Learning Commons Room 1201, 5:30 pm]

Nov. 10 - **Dr. Luke Arbogast**, National Institute of Standards & Technology, "Expanding the Role of NMR in the Biopharmaceutical Industry"

All seminars, except for the Fenn Lecture on Nov. 3, are held in Kapp Lecture Theater, Oliver Hall Room 1024 at 3:30 pm.

More information at chemistry@vcu.edu; (804) 828-1298.

STRATEGIC PLAN UNVEILING AND FELLOWSHIP

Please join us from 9 – 11 AM on December 10th for pastries, coffee and fellowship at the **Historic Hollyfield Manor** and for the unveiling of the Virginia Section's Strategic Plan. There is no charge for this event.

Hollyfield Manor, <http://www.hollyfieldmanor.com/history/>, is a historic eighteenth-century home overlooking a serene pond and lush farmland in King William County. The beautiful home has endured through nearly 300 years of American history. It was one of several plantations in King William and New Kent once owned by the Honorable Burwell Bassett, an intimate friend and brother-in-law to President George Washington. The Bassett family called the plantation Bassettaire. The Manor has an expansive view of Hollyfield Pond, a 28-acre lake. The property showcases a massive red equestrian barn, a thousand acres of well-manicured farmland, and spectacular views



Directions: Hollyfield Manor, 689 Hollyfield Lane Manquin, VA 23106, is located east of Richmond, off US 360. Take I-295 to exit 37 for U.S. 360 (Mechanicsville Turnpike) east toward Tappahannock. Go 13 miles east on US 360, then turn right onto North Carolina Road. Go about half a mile and turn left on to Old Newcastle Road; you will see the manor on the right.

Please RSVP by December 3rd to Colleen Taylor at cmtaylor@vsu.edu.



CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

Oct. 28 - **Professor Corey Stephenson**, University of Michigan, "Redox Catalysis for Radical Reactions of Complex Molecules"

Nov. 11 - **Professor Christopher Love**, Massachusetts Institute of Technology, "Improving Production of Biologic Medicines for Global Access"

Nov. 18 - Professor Amanda Hargrove, Duke University, "Harnessing Small Molecules to Probe the Structure and Functioning of Noncoding RNAs" (this seminar will be in Jordon Hall, Room 1-14 at 12:30 p.m.)

All seminars, except for Nov. 18, are held at 4:00 pm in Room 304 of the Chemistry Building.

More information at <http://chem.virginia.edu/events-seminars/>.

REPORT ON OCTOBER SECTION MEETING



On October 14, about 30 persons gathered in the Boitnott Room at Bridgewater College for a delicious meal and an interesting talk.

Dr. Denise Walters, Chair of the Virginia section, presided. She thanked Bridgewater College for providing the excellent facilities and great food for the meeting.

Ms. Connor Henry-Morgan, a junior chemistry major at Bridgewater College, introduced **Dr. Kristin Wustholz** from the College of William and Mary. Dr. Wustholz

described her use of the Raman scattering technique known as single-molecule spectroscopy (SMS) to identify the organic pigments that were used for historic oil paintings. Her research has implications in art conservation. **Dr. Colleen Taylor**, Chair Elect of the Section, presented Dr. Wustholz with an engraved Jefferson Cup.



Dr. Taylor mentioned several upcoming events, including a periodic table pumpkin carving. The periodic table will be staged in Richmond on October 29 and there will be a pumpkin lighting and picture capture on October 31 at Hollyfield Manor in King William County. The November meeting of the Section will be on November 4 at the University of Mary Washington in Fredericksburg. Dr. Walters informed everyone of the Strategic Plan unveiling that is scheduled at historic Hollyfield Manor on Saturday, December 10. Refreshments will be served at the Manor.



Connor Henry-Morgan



Denise Walters, Kristin Wustholz, and Colleen Taylor (left-to-right)



Ken Chapman and Peter Ruis-Haas

WORDS OF WISDOM FOR NOVEMBER:

"CHARACTER, NOT CIRCUMSTANCES, MAKES THE MAN"

THE HARRISONBURG HARMONIZERS



The **Harrisonburg Harmonizers** is a group of about 20 men who perform barbershop harmony. They sing a capella, featuring songs arranged for male voices in close four-part harmony; their repertoire is heavy on the Tin Pan Alley era, about 1900-1930. **Joe Crockett** sings in the chorus and in one of their quartets. Joe has been chair of the Virginia Section twice (1990-91, 2013) and received the Distinguished Service Award in 2014. He is a Professor of Chemistry at Bridgewater College and is the A. Leroy and Wanda H. Baker Chair of Science. He served as host for the October 14 meeting of the Virginia Section.

The photographs of the Harmonizers were taken at their performance at the Bridgewater Farmers Market on October 15. You can hear them singing on Saturday, November 19 at the Staunton Farmers Market in downtown Staunton.

REPORT ON THE CHEMISTRY CAREER DISCUSSION PANEL



The Women Chemists Committee (WCC) held its 8th annual Chemistry Career Discussion Panel at the University of Richmond on September 29. The meeting was co-sponsored by the Powell Lectureship Series at the University of Richmond. Dr. Emma Goldman at U of R organized the program. Panel members included Dr. Hilda Castillo, Research Operations Manager for the Harvard Program in Therapeutic Sciences (HiTS) at the Harvard Medical School; Dr. Carleitta Paige-Anderson, Director of the Center for Undergraduate Research (CUR) at Virginia Union University; Dr. Patricia Silveyra, Assistant Professor of Pediatrics, Biochemistry, and Molecular Biology and Humanities at the Pennsylvania State University College of Medicine; and Dr. Denise Walters, a Senior Manager in the Science and Technology Group at Pfizer Consumer Healthcare in Richmond.



(Photographs courtesy of Brandi Ford)

SCIENCE CAREER DEVELOPMENT WORKSHOP

On Saturday, October 1, the Hampton Roads section of the American Chemical Society and the Virginia Younger Chemists Committee held a Virginia Science Career Development Workshop at the College of William and Mary in Williamsburg. The Chemistry Club at William and Mary hosted this collaborative event which featured several professionals from academia, industry, and government who highlighted a diverse array of career paths that are available to students and young professionals.

The workshop featured a networking lunch, a keynote speaker, breakout sessions, raffles, and a career panel Q&A session. The keynote speaker was **Dr. Aaron Pawlyk** from the National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health. His talk, entitled "Musings on my Career Path," was an educational and, at times entertaining, summary of his career, including his learnings and advice on choosing an appropriate career path. The breakout sessions covered a variety of topics such as graduate school, resume writing, and careers in industry and policymaking. The panel session that followed was very successful and touched on how to get exposure to different career options, pros and cons of BS, MS and Ph.D. degrees, and the importance of mentoring. The event closed with recognition, with certificates of appreciation given to each panelist (see complete list below). A Jefferson Cup was presented to the keynote speaker for his special contribution to this workshop.

The panelists:

John Connell, Ph.D. - Senior Scientist in the Advanced Materials and Processing Branch at the NASA Langley Research Center

Lisa El-Shall - Director of R&D Quality Assurance supporting the Pfizer Consumer Healthcare Global Research and Development organization

Daniel Cook, Ph.D. - Postdoctoral fellow at Virginia Commonwealth University

Renata Spinks - Senior Technical Advisor to the Associate Chief Information Officer of the IRS for the US Treasury

Robert Pike, Ph.D. - Gottwald Professor of Chemistry at the College of William and Mary

Kathryn Deibler, Ph.D. - Principal Scientist in the Flavor Technology Group at Pfizer Consumer Healthcare

Wanida Lewis, Ph.D. - AAAS Science and Technology policy fellow/Foreign Affairs Officer in the Office of Agricultural Policy for the Department of State

Ron Quinlan, Ph.D. - Assistant Professor of Chemistry at Christopher Newport University

The Virginia Science Career Development Workshop was well attended with over 60 people present, including students, young professionals, volunteers, participants, and planning committee members.

Feedback was collected from both event participants and attendees. While the response was very positive overall, we did receive some suggestions for improvement that will have a positive impact on future events. All attendees felt the event met or exceeded their expectations and that the length of the event was suitable for all activities.

Improvements in the future would be to tailor this event more towards specific populations of chemists in the Younger Chemists Committee organization. This would involve having a specific theme for the event and diversifying the panelists to reach chemists with varying degrees of education and experience. In addition, certain portions of the event could be shortened to allow more time for

networking. The YCC is hoping to have this event on a yearly basis, continuing it as a long-term goal as membership evolves.

This event could not have been possible without the great collaboration of the Virginia Younger Chemists' committee, the Hampton Roads section of the ACS, and William and Mary's Chemistry Club. A large debt of gratitude is owed to **Deborah Bebout**, who was our contact at William and Mary, helping with all of the logistics of the building and setup. Finally, a huge thank you goes to the keynote speaker, panelists and attendees of the workshop who made this event a true success.

(This report was provided by Margaret Hill Roszel and Heather Lourenco; the photographs below were taken by Brandi Ford)



REPORT ON YCC EVENTS



On September 8, the **Younger Chemists Committee (YCC)** held a happy hour event at Citizen Burger Bar. There were four members in attendance and six guests. This was a fun event that enabled members and guests from different industries and backgrounds to interact and talk about their work.



On October 11, the YCC held an ACS **Program in a Box** session entitled, "The Chemists Code for Success: 3 Essential Skill Sets for Your Career". The event ran from 6:30-8pm at Pfizer Consumer Healthcare, with pizza and drinks provided. This webinar was specifically focused on abilities that go beyond the laboratory skillset, including professional etiquette, time management and handling failure. The session also included hands-on activities that encouraged interaction and dialogue between the attendees. There were five members and four guests in attendance with both Hampden-Sydney College and Virginia Commonwealth University being represented.

Stay tuned for the next Program in a Box session to be held **February 21, 2017** focusing on "The Chemistry of Sports". (YCC report and photographs submitted by Margaret Roszel)