



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

JANUARY MEETING NOTICE

JANUARY 2014

**Arista Laboratories
Richmond, Virginia**

AWARDS MEETING

Friday, January 17, 2014

LAB TOURS: 5:45, 6:00, 6:15 p.m.

Arista Laboratories
1470 E. Parham Road
Richmond, VA

RECEPTION: 6:00 p.m.

Cafeteria
Arista Laboratories

DINNER: 6:30 p.m. - Cafeteria, Arista Laboratories

PROGRAM: 7:30 p.m. - Cafeteria, Arista Laboratories

MENU: Chicken Parmesan, Pasta, Marinara Sauce, Caesar Salad, Sourdough Bread, Assorted Cookies, Brownies, Coffee, Iced Tea

PRICE: ACS Members and Guests - \$13.00
High School Students, College Students, High School Teachers - \$7.00
Retired ACS Members & Guests; Retired Teachers & Guests - \$8.00

DINNER RESERVATIONS: Please make reservations for the Dinner by **NOON on Wednesday, January 15**, by calling **(804) 887-2120** or by e-mail to Senaida Sayre at ssayre@aristalabs.com. NOTE: When you make your reservation, **please provide the name and affiliation of each guest, along with the preferred tour times. NO ONE WILL BE ADMITTED WITHOUT A RESERVATION—YOU MUST MAKE YOUR RESERVATION BY JAN. 15.**

HOST: Dr. Joseph Pompano, (804) 887-2100; Joe.Pompano@aristalabs.com

PROGRAM: **DISTINGUISHED SERVICE AWARD - Dr. Joseph Pompano**
EXCELLENCE IN INDUSTRIAL ANALYTICAL CHEMISTRY AWARD - Dr. Kent Koller

S	M	T	W	T	F	S
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			<i>resrvations</i>		<i>meeting</i>	
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DISTINGUISHED SERVICE AWARD

Dr. Joseph M. Pompano



Joe Pompano was raised in Connecticut and earned his BS in mathematics and chemistry at the University of Connecticut in Storrs. Joe received an M.S. in Human Nutrition from the University of Massachusetts, and did a Dietetic Internship at the Medical College of Virginia Hospitals in Richmond, which brought him to Virginia in 1982. After teaching high school mathematics and chemistry in Henrico County for 16 years, he obtained a Ph.D. in chemistry from Virginia Commonwealth University, doing research with Professor Sarah Rutan on artificial neural networks in the analysis of water soluble sulfonylurea herbicides, using an LC/MS.

In the 1970's Joe was the founder of an alternative school in Orange, Massachusetts and the owner/operator of a natural foods restaurant. His professional chemistry-related experience includes working as a laboratory technician at Erving Paper Mills in Erving, Massachusetts, and as a Principal Scientist at Boehringer Ingelheim Chemicals, Inc. in Petersburg, Virginia. He is currently employed as a Scientist and team leader at Arista Laboratories in the LC Group.

Joe has been an ACS member since 1994 and is a member in the Analytical Chemistry Division. He is a member of the Executive Committee of the Virginia Section and has served the section as Treasurer, Secretary, Vice-Chair, Chair-Elect, and Chair. He was the General Chair of the 2011 Southeast Regional Meeting of the American Chemical Society (SERMACS) and is currently involved with the Chemistry Olympiad.

Joe lives in Hanover with his wife Debbie and two dogs, Snowbear and Corky. He has three daughters. Rachel is an art teacher in Charlottesville, Rebecca is finishing a post-doc in chemistry at the University of Chicago, and Laura is a Ph.D candidate in International Nutrition at Cornell University in Ithaca, New York.

“Heterocyclic Aromatic Amines”

Heterocyclic aromatic amines (HAAs) are potent mutagenic and suspected carcinogenic compounds formed in the burning of protein-containing substances, such as meats or tobacco. At Arista Labs, we have developed an accurate and reproducible method to detect and quantify HAAs in tobacco smoke with short analysis time and good recoveries. The obstacles encountered in the development of this LC/MS/MS method using solid phase extraction will be discussed.



EXCELLENCE IN INDUSTRIAL ANALYTICAL CHEMISTRY AWARD

DR. KENT KOLLER



After experimenting with several vocations such as commercial pilot flight training, shipfitter at the Newport News Shipbuilding Company, and three years of service in the US Army, Kent Koller decided to be a chemist. Kent earned his B.S. and Ph.D. degrees in analytical chemistry from Virginia Commonwealth University. Dr. Fred Hawkrigde was his research advisor and his research focus was the heterogeneous electron transfer reactions of cytochrome c. He then spent two years at the Naval Research Laboratory as a National Research Council post-doctoral fellow, developing an analytical method for the in-situ determination of semiconductor material quality during plasma deposition.

Kent joined the Altria family of companies in 1988 as a Scientist in the Analytical Research Division and has worked in a number of positions in research, new technology development, and analytical evaluation. He developed analytical procedures to facilitate smoke research and led a research group responsible for developing smoke filtration technologies. He holds twenty patents related to smoke filtration. Kent has held leadership positions in the analytical laboratory group for more than a decade.

Kent currently serves as Director, Analytical Sciences, for Altria Client Services, which provides laboratory-based information in support of regulatory reporting, quality compliance, product integrity and product development activities for the Altria Group family of companies. He has held this position since 2009. Altria Group is the parent of leading tobacco businesses Philip Morris USA Inc, U.S. Smokeless Tobacco LLC, and John Middleton Company. Kent works at the company's Center for Research & Technology in Richmond, Virginia.

“Industrial Analytical Chemistry as Practiced in Altria Client Services”

Altria Client Services is a centralized service company that supports the operating companies of Altria Group. These include Philip Morris USA, US Smokeless Tobacco Co, John Middleton, Nu Mark, and RichMark.

Analytical Sciences provides laboratory based information in support of product development, regulatory reporting and quality compliance activities. Following a brief history of Altria R&D, I will discuss the capabilities and activities of Analytical Sciences and highlight ongoing infrastructure adjustments that are a regular part of supporting an evolving business. Two examples of new work that required the creation of new capabilities are (1) compliance with FDA regulation and (2) supporting the development and commercialization of new tobacco category products that do not contain tobacco.



DIRECTIONS

Arista Laboratories is located at 1470 East Parham Road in Henrico County, a few miles north of Richmond. The location is convenient to both I-95 and I-295.

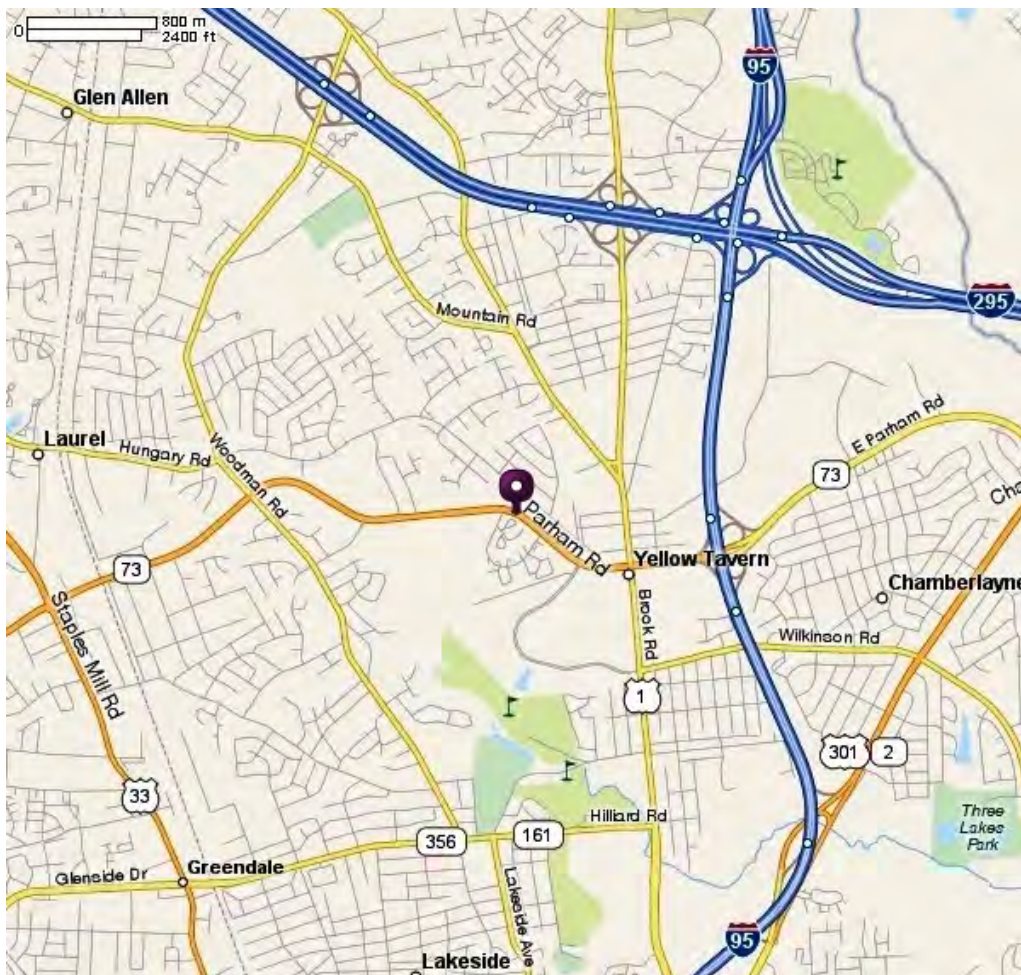
From Richmond and areas to the South: Take I-95 North to Exit 83B, East Parham Road (VA-73). Go south on East Parham Road for about a mile. Turn right at the light on to Sanctuary Drive. Take the first right into the Arista Labs parking lot and park in front of the building on the left.

From the North: Take I-95 South to Exit 83B, East Parham Road (VA-73). Go south on East Parham Road for about a mile. Turn right at the light on to Sanctuary Drive. Take the first right into the Arista Labs parking lot and park in front of the building on the left.

From I-64 and areas to the East: Take I-64 West to Exit 200, I-295 North. Go north on I-295 for about 15 miles. Take Exit 43B, I-95 South toward Richmond, go about two miles, then take Exit 83B, East Parham Road (VA-73). Go south on East Parham Road for about a mile. Turn right at the light on to Sanctuary Drive. Take the first right into the Arista Labs parking lot and park in front of the building on the left.

From I-64 and areas to the West: Take I-64 East to Exit 177, I-295. Go about 9 miles to Exit 43B, I-95 South toward Richmond, go about two miles, then take Exit 83B, East Parham Road (VA-73). Go south on East Parham Road for about a mile. Turn right at the light on to Sanctuary Drive. Take the first right into the Arista Labs parking lot and park in front of the building on the left.

MAP



**Arista Laboratories
1470 E Parham Road
Henrico, VA 23228**

To Richmond



***** VIRGINIA SECTION NEWS *******EXECUTIVE COMMITTEE MEETING**

The Executive Committee of the Virginia Section will meet on Saturday, January 18, 2014 at Virginia Commonwealth University in Richmond. Snacks will be provided at 8:30 a.m. with the meeting starting at 9:00 a.m. The meeting will be held in room 4153 of Harris Hall. Harris Hall is located on the corner of Main and Harrison streets. All members of the section are invited to attend. For questions regarding the agenda and meeting, contact the 2014 Chair of the Virginia Section, Dr. Scott Gronert at (804) 828-2753, sgronert@vcu.edu. Officers and committee chairs should prepare reports for posting on the Section website and for distribution at the meeting.

THE CHAIR'S CORNER

I wish a happy new year to the Virginia Section and hope that all had a wonderful holiday season. I am looking forward to serving as Chair and hope to have a productive year working with the executive committee. With the new year, there are some changes in the slate of officers and I join many in thanking Joe Crockett for his excellent service last year as Chair. It was an outstanding year for the section and it included five Chemluminary Awards, an accomplishment that highlights the incredible service that our members do in the community. In other changes, Todd Koch is taking over the Chair-Elect duties and will be arranging an exciting set of speakers for the meetings this year. Thanks also to Rob Davidson for his excellent service as Secretary. Dustin Haddenman is taking over those duties and we are also welcoming Denise Waters as the new Vice-Chair. Finally, thanks to Karen Carter who completed her leadership cycle as Past Chair last year.


Looking forward to the coming year, I share many of the same goals that Joe Crockett targeted last year. Building the number of active members is a critical goal and section meeting attendance can play a large role in building up active members. Despite interesting speakers and quality venues for the meetings, we are only bringing out a small fraction of the membership. I hope to work with the executive committee this year in re-evaluating the structure of the meeting program and exploring new ideas for the meetings.

I am also interested in expanding the participation of the colleges and universities in the section. Here I will continue the efforts of Stephanie Mabry and Joe Crockett. My first initiative will be to target at least one faculty member at institutions that are not participating at a significant level and work towards getting them to attend a meeting with some of their students.

Finally, the section belongs to its members and I will make very effort to respond to and pursue initiatives brought to me from the membership. I encourage all members to take a role in directing the future of the section. Please mark the section meetings on your calendar and get to know your fellow members and the executive committee.

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

FUTURE MEETINGS

DATE:	February 21, 2014	
LOCATION:	University of Richmond	
	Richmond, Virginia	
HOST:	Dr. Raymond Dominey	
PHONE:	(804) 289-8761	
EMAIL:	rdominey@richmond.edu	
SPEAKER:	Dr. Barbara Imperiali	
TOPIC:	"Chemical Tools for the Study of Complex Biological Systems"	

(POWELL LECTURESHIP)

DATE:	April 18, 2014 (tentative 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)

BACK ISSUES OF THE BULLETIN

Did you miss the December Bulletin? There was a farewell note from Joe Crockett, the 2013 Section Chair; some recollections from retiring councilor Jerry Bass; a directory of chemistry departments at colleges and universities in the Virginia section; reports on the October and November meetings; and a notice of a job opening at Arista Laboratories in Richmond. You can find the December issue, along with all of the other Bulletin issues for 2013, on the Section website: <http://www.virginia.sites.acs.org>. Click on The Bulletin at the top of the home page.

ARISTA LABORATORIES



Arista Laboratories (Arista) is the leading independent tobacco testing laboratory in the United States. Arista is capable of testing a variety of tobacco products including cigarettes, cigars, RYO, smokeless products, SNUS, hookah, and electronic cigarettes. Our dedicated staff has experience in testing the complete FDA list of 93 HPHCs (Harmful and Potentially Harmful

Constituents), as well as undertaking programs in support of Health Canada and Brazilian Health Surveillance Agency (Anvisa) regulations. Our new state-of-the-art laboratory is ISO 17025 accredited and GLP compliant. Arista delivers objective third party analyses for compliance, research and development, and product stewardship.

Arista is outfitted with a large LIP lab capable of handling our customers' LIP testing needs. We can perform LIP according to the American Society of Testing and Materials ("ASTM") standard E2187 "Standard Test Method for Measuring the Ignition Strength of Cigarettes" and ISO 12863 "Standard Test Method for Assessing the Ignition Propensity of Cigarettes." LIP testing is conducted on 10 layers of filter paper with forty replicate tests (cigarettes) per sample or test trial. An evaluation of "PASS" indicates the samples meet a performance standard where no more than 25 percent of the cigarettes tested exhibit full length burns.

Arista Laboratories offers routine and investigative in vitro toxicology services. Our staff is knowledgeable in early and late genotoxic and cytotoxic effects of individual compounds and materials (plant, animal and human tissues and specimen agrochemicals, drugs, personal care products, and natural products).

We are capable of testing products in various phases (i.e., gas, solid and liquid). Therefore, we frequently service governmental and regulatory agencies, manufacturers of tobacco products, pharmaceutical, chemical, personal and nutraceutical industries.

Our services meet the requirements of Health Canada's Tobacco Reporting Regulations (HC TRR) for mutagenicity (Ames), cytotoxicity (neutral red uptake) and clastogenicity/aneugenicity (micronucleus) in particulate, vapor and whole smoke phases. Other assays include, but are not limited to, sister chromatid exchange (SCE) and COMET assays using animal or human primary or immortalized cell lines.

Mutagenicity findings are evaluated and interpreted using a proprietary VISITOX interface to the SALM statistical software program developed by scientists of the University of North Carolina (Byung Kim and Barry Margolin, Mut Res 436, 1999). This interface is available to independent researchers for the evaluation of their own data through Arista's secure client login interface.





CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

- January 24 - **Professor Carol Robinson**, Oxford University (**Burger Lecture**)
January 31 - **Professor Adam Veige**, University of Florida
February 21 - **Professor Jay Groves**, Princeton University
February 25 - **Wilma Subru**, Subra Company (**Graham Lecture**)
February 28 - **Professor Matt Holden**, University of Massachusetts (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
April 18 - **Professor Jim Skinner**, University of Wisconsin
April 25 - **Professor Michael Fayer**, Stanford University (**Jefferson Lecture**)
May 15 - **Professor Peter Dervan**, California Institute of Technology (**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/>.

SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY

- January 30 - **Dr. Peter Wentzell**, Dalhousie University, Canada
February 11 - **Dr. Cynthia Dowd**, George Washington University
February 13 - **Dr. John Hackett**, VCU Massey Cancer Center
February 20 - **Dr. Lei Zhu**, Florida State University
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 17 - **Dr. Charles Winter**, Wayne State University
April 22 - **Dr. Indika Arachchige**, VCU Department of Chemistry
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.

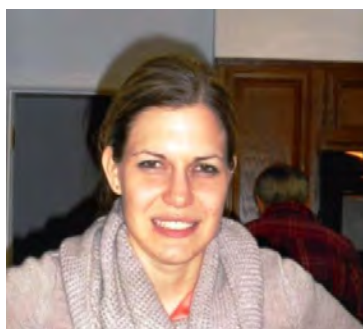
WCC CHEMISTRY CAREERS DISCUSSION PANEL



The Women Chemists Committee of the Virginia Section sponsored the Fifth Annual Chemistry Careers Discussion Panel on November 8, 2013. The meeting was held at the University of Mary Washington in Fredericksburg. Thirty persons, including a number of students, participated. Speakers included Dr. Lynn Brostoff of the U.S. Library of Congress, Ms. Amy Carfagno of the U.S. Marine Corps, and Ms. Rebecca Funkhouser, who works at the Dahlgren Division of the Naval Surface Warfare Division. Dr. Janet Asper served as Host for the meeting and introduced the speakers. NewMarket Corporation provided financial support for the Chemistry Career Discussion Panel. Dr. Stephanie Mabry is Chair of the Women Chemist Committee for the Virginia Section.



Lynn Brostoff

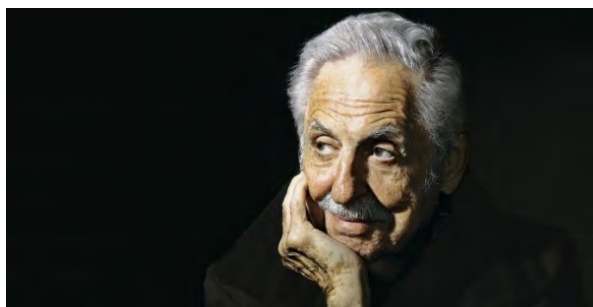


Amy Carfagno



Rebecca Funkhouser

JEFFREY SEEMAN WRITES ON CARL DJERASSI



Noted chemist Carl Djerassi celebrated his 90th birthday on October 29, 2013. *Chemical and Engineering News* paid tribute to him with a cover photograph and story in the October 21, 2013 issue. The article was written by Dr. Jeffrey I. Seeman, Visiting Senior Research Scholar at the University of Richmond, and a member of the Virginia Section of the ACS. In his lead article, Dr. Seeman lists some of Djerassi's achievements and honors as a celebrated chemist, author, poet, playwright, philanthropist, and supporter of the arts:

- published more than 1,200 scientific papers;
- published three autobiographies, one memoir, five novels, two nonfiction books, 11 plays, two collections of poetry, three collections of essays and short stories, and one art book;
- received the National Medal of Science and the National Medal of Technology;
- has been awarded the Priestly Medal, the first Wolf Prize in Chemistry, many other awards, and has received 32 honorary doctorates.

Djerassi is best known as "the father of the Pill." While working for Syntex in Mexico City, he led the team that achieved the first synthesis of a steroid oral contraceptive, norethindrone.

Jeffrey Seeman has a deep interest in the history and sociology of science. He is the Editor of the prestigious series of 20 autobiographies of eminent scientists titled *Profiles, Pathways and Dreams*, published by the American Chemical Society and Oxford University Press. He serves as Chair of the Heritage Council of the Chemical Heritage Foundation. In September, 2007, the Virginia Section honored him with its Distinguished Service Award. In the August 19, 2013 issue of *C&E News*, Dr. Seeman reviewed Dr. Djerassi's latest book, "How I Beat Coca-Cola and Other Tales of One-Upmanship."



CHEMLUMINARY AWARDS



As reported in the October, 2013 issue of the Virginia Section Bulletin, the Section received a record number of five ChemLuminary awards at the fall meeting of the American Chemical Society. Each year, the ACS recognizes outstanding achievements by local sections and divisions by awarding ChemLuminary awards. The Section received these awards:

- **Outstanding Program Aimed at Retaining Women in the Chemical Enterprise**
- **Chemists with Disabilities Inclusion Award**
- **Creative & Innovative Use of Chemists Celebrate Earth Day Theme**
- **Outstanding NCW Event for a Specific Audience**
- **Outstanding On-going NCW Event**

These awards were for activities conducted during the 2012 calendar year. Key persons involved in these award-winning programs included Dr. Kristine Smetana, Chair of the Virginia Section's Community Activities Committee, Dr. Stephanie Mabry, Chair of the Women Chemists Committee (WCC), and Dr. Karen Carter, Chair of the Section in 2012. Here are two photos from the official awards presentation at the ACS national meeting in Indianapolis when the Virginia Section councilors accepted the five ChemLuminary awards.



Virginia Section Councilors Kristine Smetana and Ann Sullivan. Past ACS President Bassam Shakhashri is at the far right.



Councilors Kristine Smetana, Ann Sullivan and Jerry Bass. ACS President Marinda Li Wu is on the far right.

HAPPY NEW YEAR!

...A LOOK BACK...

Some past meetings of the Virginia Section:

One Year Ago: January 18, 2013, Randolph-Macon College - Scott Gronert, Virginia Commonwealth University, "Aldehydes in Your Proteins: The Tree Rings of Human Aging?"

Five Years Ago: January 23, 2009, Science Museum of Virginia - Yorke Rhodes, New York University, "Planetary Chemistry: Differences in Solar System Atmospheres"

Ten Years Ago: January 16, 2004, Randolph-Macon College - Joseph Formica, "Terroir and the Genesis of Quality Wine"

25 Years Ago: January 13, 1989, Randolph-Macon College - Elizabeth and Hampton Hairfield, "On the Incense Trail"

50 Years Ago: January 3, 1964, Richmond - George Hager, "Retrieval of Organic Compounds"

60 Years Ago: January 15, 1954, Medical College of Virginia, Richmond - E. K. Lofburg, Corning Glass Works, "Applications of Glass in Industry"

Editor's Note: Does anyone know where in Richmond the meeting was held in January, 1964, or the affiliation of the speaker, George Hager? beckjd1977@comcast.net; (804) 733-5286

VIRGINIA SECTION OFFICERS FOR 2014

CHAIR:	Dr. Scott Gronert Department of Chemistry Virginia Commonwealth University Richmond, VA 23284	(804) 828-1298 sgronert@vcu.edu
CHAIR-ELECT:	Dr. Todd Koch Pfizer Consumer Healthcare 1211 Sherwood Avenue Richmond, VA 23220	(804) 257-2890 todd.koch@pfizer.com
VICE CHAIR:	Dr. Denise L. Walters Pfizer Consumer Healthcare P.O. Box 26609 Richmond, VA 23261	(804) 257-2828 denise.walters@pfizer.com
SECRETARY:	Dr. Dustin Haddenham AIBiotech, LLC 601 Biotech Drive Richmond, VA 23235	(804) 837-9044 dhaddenham@aibiotech.com
TREASURER:	Dr. Stephanie Mabry Afton Chemical Corporation 500 Spring Street Richmond, VA 23219	(804) 639-6991 stephanie.mabry@aftonchemical.com

WORDS OF WISDOM FOR JANUARY:

“DIAMONDS ARE MADE
UNDER EXTREME PRESSURE AND HEAT”

THE BULLETIN

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Chair - Dr. Scott Gronert (804) 828-2753



Scott Gronert

Chair Elect - Dr. Todd Koch (804) 257-2890
Vice Chair - Dr. Denise Walters (804) 257-2828
Secretary - Dr. Dustin Haddenman (804) 837-9044
Treasurer - Dr. Stephanie Mabry (804) 639-6991
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