

UNIVERSITY OF RICHMOND

Department of

Chemistry

Summer 2012 Annual Report to Alumni

FROM THE CHAIR



Dear UR Chemistry Alumni and Friends,
My name is Michelle Hamm and I was appointed the new Chair of Chemistry this past January when Lisa Gentile became an Associate Dean of Arts and Sciences here

at UR. Lisa was a wonderful chair who kept us running smoothly and helped us achieve an even higher level of success; we are very thankful for all her hard work, and wish her the best of luck in her new position.

As for the department, it has been a busy and productive year. In May we said goodbye to 13 graduating seniors in chemistry and 23 in biochemistry and molecular biology (BMB). We celebrated their departure both at a lunch before our awards ceremony in April as well as a gathering with them and their families on the Saturday before graduation. We are incredibly proud of all they have accomplished and look forward to hearing back from them as they move on to new challenges and attain new successes.

The department has had many successes of its own this year. We taught more than 1,750 students in our courses during the academic year, including 106 in our research labs. During summer 2012, we had 68 undergraduate students in our labs working full time for between eight to 10 weeks (see the picture in this publication). Since July of last year we have published 20 research papers in peer-reviewed journals, 15 of which had at least one UR undergraduate student author. The faculty gave 16 presentations, while our students gave 91 presentations, 56 of which were at regional or national meetings. Three of our faculty received external funding:

Lisa Gentile and Carol Parish from the NSF, and Kristine Nolin from both Research Corporation and the ACS-PRF program. Dr. Parish was also awarded a Fulbright and will be in Israel during fall 2012. Finally, Bill Myers was presented with one of the highest faculty honors we have at UR, the ODK Faculty Member of the Year Award.

Our department was also part of a 1.4 million dollar HHMI grant that was awarded to UR in May. The grant will focus on expanding the Interdisciplinary Quantitative Science Course (IQS) that has been part of our curriculum the last three years, and will also lead to the development of a new interdisciplinary science course called SMART (Science, Math, and Research Training). While IQS has focused on integrating chemistry, biology, physics, math and computer science for students with very strong science backgrounds, SMART will integrate chemistry, biology and math and will allow all students the opportunity for an interdisciplinary science experience.

We also have some new faces in the department. Jonathan Dattelbaum is back from a year-long sabbatical in New Zealand. Edie Banner, who had been a post-doc with John Gupton, will be with us for three years in a position that replaces Lisa Gentile during her term in the Dean's Office. Finally, LeMont Cheatham has joined us in a new full-time lab manager position. He will help prep labs on the first and second floor, including analysis, physical, inorganic and general chemistry labs. John Wimbush, who had a shared lab manager position between chemistry and physics, has now moved full time into physics. Though they stayed on campus, Carol Parish, Mike Leopold, and Emma Goldman were on leave during the past year.

We hope this annual report finds you well. As time permits, please stop by, give us a call, or send an e-mail letting us know how you are. We would love to hear from you. For those of

See **CHAIR** continued on page 7

Chemistry Awards

Garnett Ryland Award

Awarded to the best graduate in chemistry.

Diana Iovan

ACS Award

A one-year membership in ACS and recognition at the last meeting of the Virginia section of ACS. Awarded to a graduating senior deemed outstanding. Generally given to a senior heading to graduate school.

Justin Cook

AIC Award

Certificate and one year membership in AIC (American Institute of Chemists). Award to a senior who is headed to a career in the industry.

Stephen Wilson

Senior Research Achievement Award

Awarded to the senior chemistry major who has shown the most impressive research achievements.

Kaleigh Hall, John Stewart

Academic Award

Awarded to a senior who has excelled in chemistry.

Bradley Falk

Service Award

Awarded for service to the chemistry department and the University.

Diana Iovan, Kevin Kindler

J. Stanton Pierce Award

Awarded to an outstanding junior chemistry major.

Alexander Hahn, Kevin Kindler

Analytical Chemistry Award

Subscription to *Analytical Chemistry* and honorary membership in the Division of Analytical Chemistry for nine months. Awarded to a chemistry major who demonstrates an interest and aptitude for a career in analytical chemistry.

Ana Neferu

Physical Chemistry Award

Awarded to a student who demonstrates outstanding ability in the field of physical chemistry.

Matthew Guarino

Inorganic Chemistry Award

Awarded to a student who shows outstanding ability in the field of inorganic chemistry.

Michael Freeman

Junior Research Achievement Award

Awarded to the junior chemistry major who has shown the most impressive research achievements.

Alyson Garst

Virginia Academy of Science Award

A small prize and recognition at a dinner during the annual meeting of the Virginia Academy of Science. Awarded to a returning student who is likely to pursue a career as a scientist.

Jonathan Fagan

Stuart Clough Organic Chemistry Award

Awarded to a student who demonstrates outstanding ability in the field of organic chemistry.

Margaret Moore

Sophomore Research Achievement Award

Awarded to the sophomore who has shown the most impressive research achievements.

Lyniesha Wright

William Trout Award

CRC Handbook presented to the best student in general chemistry.

Jason Andresen

Biochemistry and Molecular Biology

BMB Sophomore Research Award

Awarded to a sophomore who demonstrates outstanding research potential.

Margaret Moore

BMB Junior Research Award

Awarded to a junior who demonstrates outstanding research performance and dedication.

Ryan Roark

BMB Senior Research Award

Awarded to a senior who demonstrates outstanding research performance and dedication.

Caitlin Smith

Senior Service Award

Awarded to a senior BMB major for outstanding research, performance, and dedication.

Helen Yanta

Most Outstanding BMB Major Award

Awarded to the overall best senior BMB major in research, academics, and service.

Robert Heler

BMB Academic Award

Awarded to the senior BMB major with the highest academic aptitude in the major.

Natalie Omattage, Christina Vivello

Additional Student Awards

David C. Evans Award for Outstanding Achievement in Scholarship

Diana Iovan

Phi Beta Kappa

Chemistry Majors

Justin Cook

Alexander Hahn

Biochemistry & Molecular Biology Majors

Farren Billue

Bradley Falk

Emily Hagemann

Kaitlin Markoja

Christina Vivello

Gamma Sigma Epsilon

Gamma Sigma Epsilon is the national chemistry honor society. The following is a list of 2012 inductees:

Class of 2013

David Fanelli

Michael Ghio

Thomas Johnson

Kevin Kindler

Ana Neferu

Ryan Roark

Danielle Taylor

Class of 2012

Matthew Guarino

Hugo Guterres

Emily Hagemann

Kristin Lescalleet

Kaitlin Markoja

Natalie Omattage

Sarah Rhoads

Anna Rued

Helen Yanta

Faculty and Staff Awards

Appointed to Floyd D. and Elizabeth S. Gottwald Endowed Chair of Chemistry

Mike Leopold

ODK Faculty Member of the Year Award

William Myers

Summer 2012 Research

Students who were awarded funding for research with chemistry faculty this summer.

Puryear-Topham Scholars

Shannon Biello, Brian Doherty, Caroline Elia, Jonathan Fagan, Michael Freeman, Ashley Magnuson, Brandon Mills, Huiling Shao, Jasmine Smalls

HHMI Scholars

Lily Mawbry, Jacquanae Mays, Adrienne Schmidt, Jeff Schriber, Amelia Weaver

A&S/Grainger Scholars

Roman Abdul-Satar, Alexis Achey, Lizzie Barnett, Drew Beck, Idil Cazimoglu, Alisha Cerel, David Fanelli, Kyle Faust, Lauren Gallagher, Alyson Garst, Michael Ghio, Jessica Griswold, Dana Guglielmo, Jackson Hall, Margot Hillyer, Kristin Lescalleet, Chun Li, Emily McFadden, J'Nay Mikell, Courtney Roach, Ryan Roark, Alyssa Shema, Nicole Smith, David Stevens, Devin Sullivan, Marina Tawfik, Tehetina Waldemichael, Winston West, Tabitha Yewer, Amber Young

Beckman Scholars

Emily McFadden, Sarah Rhodes

NSF

Emily Bartle, Sarah Covington, Carolyn Dombrowski, Erin Maxwell, Jordan Silberg

ACS-PRF

Alexandra Badiceanu, Caroline Braun, Emily Nelson, Carly Mueller, Derek Obenschain

Chemistry Graduates

Megan Arthur (12/2011) – Dubuque, Iowa. Megan did research with Dr. Ellis Bell. Her research focused on the interaction of the binding proteins with ultimate dehydrogenase. She graduated last December, and is currently working at Duke University Medical Center as a clinical trial assistant and applying to medical schools.

Spencer Bates – Cumberland Foreside, Maine. Spencer worked in Dr. John Gupton's research lab for four semesters and one summer. His project title was "The Preparation and Novel Reactions of Indole Containing Vinyllogous Amides and Haloenals." Spencer is going to take a year off before applying to medical schools.

Amanda Belcher – Richmond, VA. Amanda did four semesters and two summers of research with Drs. Dominey and Goldman. Her project was "A New Synthesis for Diphenylphosphinopyridine Aldehyde: Precursor for Bimetallic Transition Metal Complexes." She will be pursuing a medical degree at Tulane University School of Medicine.

Justin Cook – Sterling, VA. Justin did research in Dr. Carol Parish's lab for seven semesters. His project was "Ring insertion of Formaldehyde into Thiophene." He will be attending Princeton University for a graduate degree in chemistry.

Matthew Guarino – Reading, MA. Matt conducted research with Dr. Kelling Donald for six semesters. His most recent research project was "Charge saturation and neutral substitutions in halomethanes and their group 14 analogues." He will be attending Tufts University School of Dental Medicine in the fall.

Kayleigh Hall – Fairlawn, VA. Kayleigh researched in Dr. Gupton's lab for five semesters and two summers. Her research projects were titled "The application of (Z)-3-aryl-3-haloenoic acids to the synthesis of (Z)-5-benzylidene-4-arylpyrrol-2(5H)-ones" and "Further studies on vinamidinium salt amine exchange reactions, borohydride reductions, and subsequent transformations." She will be working as a post-baccalaureate in Dr. Gupton's lab this summer, and then attending law school at the University of South Carolina.

Mona Hovaizi (8/2011) – Charlottesville, VA. Mona did research with Dr. Gupton for several semesters and two summers. Her research project was "Further Studies on Vinamidinium Salt Amine Exchange Reactions, Borohydride Reductions and Subsequent Transformations." She graduated in August of 2011, and is currently in the M.S. program in chemistry at Georgia Tech.

Diana Iovan – Ramnicu-Valcea, Romania. Diana conducted research in Dr. William Myers' lab for six semesters and two summers. Her two most recent presentations were "Using a Metal Clamp to Functionalize Substituted Pyrroles" and "Towards Enantiomeric Products from Tungsten-Mediated Reactions." She will be pursuing a Ph.D. in inorganic chemistry at Harvard University.

Elizabeth Koch – Louisville, KY. Liza worked with the Dominey/Goldman research group for the past two years. Her research was mainly based around the synthesis of different alkoxypyridine compounds as a catalyst for the reduction of carbon dioxide. Her recent poster presentation was "Alkoxy Pyridines as improved catalysts for the reduction of Carbon Dioxide." Liza will be attending Georgetown University in pursuit of a Ph.D. in inorganic chemistry.

Bradford Mattison – Carlisle, MA. Brad worked in Dr. Kristine Nolin's lab for four semesters and one summer. His research project was "Rhenium(V)-Oxo Catalyzed Synthesis of Aziridines." He will be entering the D.M.D. program at Tufts University.

John Stewart – Glen Allen, VA. John worked in Dr. Donald's lab for four semesters. His latest research presentation at the Spring A&S Student Symposium was "Halogen Bonding in DNA Base Pairs." John is planning on entering a pre-health masters program at either Virginia Tech or Medical College of Virginia-VCU School of Medicine.

Meredith Trubitt (12/2011) – Dallas, Texas. Meredith did research with Dr. Nolin for four semesters. The title of her project was "Selective Additions to Strained Oxetanes Using Re(V)-oxo Complexes." She graduated last December and is currently in medical school at the Paul L. Foster School of Medicine-Texas Tech University.

David Widmayer – Moorestown, NJ. Dave conducted two semesters and one summer of research with Dr. Wade Downey. Dave's project was "Synthesis of a Bisnucleophile for One-Pot Conjugate Addition-Diels-Alder Reactions." He plans on pursuing a career in organic or pharmaceutical chemistry after completing his degree this August.

Biochemistry and Molecular Biology Graduates

Emily Bartle – Glen Allen, VA. Emily did research in Dr. Lisa Gentile's lab from the middle of her sophomore year through this summer. The title of her project was "Mapping Neurosteroid Binding Sites of Ionotropic Glutamate Receptors." Her plans for the future are uncertain, but she is currently looking into a couple of post-baccalaureate research opportunities.

Farren Billue – Radford, VA. Farren did research in Dr. Bell's lab. Her project title was "The Role of Methionine Residues in the Subunit Interface of Malate Dehydrogenase." Farren will be attending dental school at VCU.

Sarah Byce – Pittsburgh, PA. Sarah worked with Dr. Craig Kinsley from the Psychology department on "Prospective Memory in Parous Rats" and also conducted research abroad in the Turks and Caicos Islands. Her senior thesis title was "The relationship between live coral and macroalgae in South Caicos as influenced by herbivorous fishes." Immediately after graduation, Sarah will be leading a sea turtle and surf summer camp program, and then work as a teaching fellow at the Alzar School in the fall. She plans to apply to graduate school in the future.

Bradley Falk – Centennial, CO. Brad conducted research in Dr. Bell's lab for eight semesters and four summers. His project was "Probing subunit interactions in 3-phosphoglycerate Dehydrogenase, Local Flexibility in 3-phosphoglycerate Dehydrogenase." Brad will be attending UNC-Chapel Hill in the fall to pursue a Ph.D. in biochemistry and biophysics.

Dominic Gazzo – Parma, Ohio.

Dominic's projects in Dr. Gupton's lab were "The Preparation and Novel Reactions of Indole Containing Vinylogous Amides and Haloenals" and "The Preparation of Novel Indole Containing Heterocycles from an Indole Vinamidinium Salt." He plans on taking a year off prior to applying to medical schools.

Hugo Guterres – Dili, Timor Leste.

Hugo worked in Dr. Bell's lab for four semesters and three summers. The title of his research project was "A study of the catalytic reaction mechanism by Malate Dehydrogenase using Quantum Mechanics and Molecular Dynamics." He will be pursuing a Ph.D. in chemistry at Northeastern University.

Emily Hagemann – Brookhaven, NY.

Emily is unsure of her post-graduation plans. She is applying for research assistant/lab technician positions in the meantime.

Robert Heler – Turda, Romania.

Robert did research with Dr. Linda Boland from the biology department for six semesters and two summers. His project was "Identification of a fatty acid binding site on the Kv4 channel using molecular docking and targeted mutagenesis." Robert will be attending Rockefeller University for a Ph.D. in biomedical science.

Christopher Hooper – White House, TN.

Christopher did research with Dr. Roni Kingsley from the biology department for seven semesters and two summers. His research project was "Evidence for a Symbiotic Relationship between Bacteria and the Octocoral *Leptogorgia virgulata*." He also worked on "Looking for Conserved Modifications Among RNA Helicases" in Dr. Angie Hilliker's biology lab this past spring and summer. He's looking for a lab position in an academic research laboratory, and plans on applying to biochemistry graduate programs in the future.

Emily Kluball – Clifton Park, NY.

Emily worked in Dr. Gupton's lab for five semesters and three summers. One of her recent poster presentations was "Recent Developments Concerning the Cross-coupling Reactions of (Z)-3-Aryl-3-haloenoic Acids and Derivatives." She has plans to attend medical school in the future.

Kaitlin Markoja – Cheshire, CT.

Kaitlin conducted research for one summer with Dr. Bell, and most recently for two semesters and one summer with Dr. Laura Runyen-Janecky of the biology department. Her project with Dr. Runyen-Janecky was "Examining the Role of the sit and hemolysin proteins in high affinity iron acquisition in the tsetse symbiont, *Sodalis glossinidius*." Kaitlin is moving to India to fulfill a teaching/social entrepreneur fellowship in Uttar Pradesh.

Emily Nelson – Emerald Isle, NC.

Emily conducted research with Dr. Barry Lawson, professor of computer science, as well as with Dr. Parish from the chemistry department. Her research projects were "A Graphics-Oriented Simulation Language," and "Analyzing a Pyrrole Diradical with Quantum Mechanical Techniques." She will be attending Princeton University, pursuing a Ph.D. in computational biology.

Natalie Omattage - Cleveland, MS.

Natalie worked with the Undergraduates in Biological Mathematics (UBM) group with Drs. Lipan (physics) and Runyen-Janecky (biology). She also did research with Dr. Eugene Wu, from the biology department. Her projects were "Sensing the Heat Stress by Mammalian Cells" and "Determination of the Atomic Resolution Structure of DNA Polymerase I Isolated from *Rhodothermus marinus*." She is entering a Ph.D. program at Washington University in molecular microbiology and microbial pathogenesis.

Sarah Rhoads - Bethesda, MD.

Sarah conducted research with Dr. Gentile for six semesters and four summers. Her project was "Understanding Neurosteroid Regulation of Ionotropic Glutamate Receptors." She will be attending medical school at Warren Alpert Medical School of Brown University.

Anna Rued – Pittsburgh, PA.

Anna did research with Dr. April Hill, from the biology department for six semesters. The title of her project was "The Elucidation of the Pax/Six Gene Regulatory Network in *Ephydatia muelleri*." She will be attending graduate school.

Chelsea Safran – Sewickley, PA.

Chelsea has been working in Dr. Downey's lab since her second semester of sophomore year. Her project title was "TMSOTf-mediated reactions with acetals, ketones, and amins." Chelsea will be taking a year

off before applying to veterinary school.

Caitlin Smith – Newport News, VA.

Caitlin did research in Dr. Runyen-Janecky's lab working on "Characterization of Achromobactin Iron Acquisition in *Sodalis glossinidius*." Before that, she also worked with the UBM group on "Sensing the Heat Stress by Mammalian Cells." After graduation, Caitlin is taking a gap year to teach high school biology in Prishtina, Kosovo. She then plans to attend the Uniformed Services University for a Ph.D. in emerging infectious diseases.

Christina Vivalo – Basking Ridge, NJ.

Christina conducted research with Dr. Downey for two summers and four semesters. Her project title was "The Optimization of a Three-Step One-Pot Heteroconjugate Addition-Oxidation-Diels-Alder Reaction." She is going to attend the Bloomberg School of Public Health at Johns Hopkins University to pursue a Ph.D. in biochemistry and molecular biology.

Stephen Wilson – Richmond, VA.

Stephen worked with Dr. Raymond Dominey for seven semesters. His project title was "Synthesis and Characterization of Naphthylidines: A Potential Electrocatalyst for the Reduction of CO₂." He will be attending graduate school at Emory University to study organic chemistry.

Blair Woodside – Nassau, Bahamas.

Blair worked with Dr. Kinsley, professor of neuroscience, for three semesters and one summer. Her research project was "The Role of Reproductive Experience on Neuronal Structural Proteins." She is planning on attending medical school after a post-baccalaureate program.

Helen Yanta – Alton, IL.

Helen worked in Dr. Bell's lab for two years, including one summer. Her project was "The Linkage between Citrate and pH regulation of Malate Dehydrogenase, and Protein Folding Cooperativity." Helen is going to work with Teach for America as a high school math teacher in Houston, TX.

Hao Zhong – Shenzhen, CHI.

Hao conducted research with Dr. Parish for several semesters, and more recently worked with Dr. Boland, in her biology lab. His latest research project was "Structural Determinants of K2P Ion Channel Function." Hao is taking a year off before applying to graduate school.

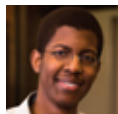
FROM THE DESK OF...



Dr. Jonathan Dattelbaum

My family and I spent 14 months living and working in New Zealand while I was on sabbatical.

My daughter Grace is now just over two years old and is a lively toddler. We had a fantastic time working with the Kiwis, and we even did some touring all around the north and south islands. At Victoria University in Wellington, I isolated new natural products from New Zealand sponges and determined their structure using 2D NMR spectroscopy. This experience greatly expanded my skill set and I am looking forward to starting new projects with Richmond undergrads.



Dr. Kelling Donald

Greetings! I joined the Oldham Scholars committee this year, and resumed teaching after my research leave in the spring of 2011. Alan De Lorenzo

started as a post-baccalaureate research associate in my lab, and John Stewart and Matthew Guarino graduated. They have moved on to exciting new opportunities, but they stayed on long enough to present posters on their work at the South Eastern Theoretical Chemistry Association (SETCA) meeting at the University of Georgia in May. John, Matt, and Marina Tawfik also gave talks and a poster at SERMACS in Richmond this year. In the process, John, Anna Parker, Dr. Carol Parish, and I completed a paper that has now appeared in the JACS. A few others appeared, with Marina and other (former) students, Thomas Johnson, Chad Crigger, and Bernard Wittmaack. It was all good, but also an extraordinarily packed year. I organized two, one-day seminars in spring 2012 for high school students looking forward to college, and chaired the structure determination workshop committee for the first time. The workshop was in May, and the whole department was involved in some way. The high school teachers and students who participated enjoyed it very much and learned a lot. I hope to have even more good news next year, and I wish you the best until then.



Wade Downey

It's been a big year for the Downey group! In August we had a paper published in Tetrahedron

Letters, the journal that also published our first-ever manuscript back in 2007. This time around, Richmond undergraduates (now alumni!) Alan Fleisher, Jimmy Rague, Chelsea Safran, and Megan Venable were among the authors. Now we've got another paper going through the submission process that dates back to work performed by some of the

first people to ever join the group, right up through the present day. Hopefully, you'll soon see the work of the following people in print after seven years of successes and setbacks: Ryan Sault, Eric Etchill, Brian Southall, Stephanie Corsi, Smaranda Craciun, Christina Vivello, Ana Neferu, and Carly Mueller. We'll miss both Christina Vivello and Chelsea Safran, who graduated this spring. Also this year, the department nominated me for a Distinguished Educator Award and a Henry Dreyfus Teacher-Scholar Award, so keep your fingers crossed. And the big news last October was that we welcomed my new son Luke into the world—he's doing great and loves to chew on molecular model kits, although the chair flip is still a work in progress for him. As always, I'd be thrilled to hear from you: send me a note at wdowney@richmond.edu.



John Gupton

This has been a very good year for the Gupton research group. An article was published in ACS Med. Chem. Lett., a

number of poster presentations were given by my students at the SERMACS meeting in Richmond in the fall, and our NIH Area grant was recently renewed. We also began a contract research agreement with Boehringer Ingelheim Chemicals in Petersburg, Va. The Guptons continue to enjoy the newest member of the family, Liam Thomas Salmon, who was born one year ago to my daughter Emily. His presence is a true delight to all of us.



Rob Miller

I have published the 6th edition of my organic chemistry laboratory manuals. I continue to be the faculty advisor to the

American Chemical Society Student Affiliates Club and enjoying every minute of it. This past fall, along with Dr. Case, I developed a Forensics Chemistry '*Who Done It?*' Mystery program for the 2011 Southeast Regional Meeting of the American Chemical Society (SERMACS) Undergraduate Program at the Omni Hotel in Richmond, Va. This activity was developed as part of the Forensics Chemistry division of the SERMACS 2011 'Charting Chemical Connections' conference. This activity consisted of developing a mock scenario forensic mystery, that would engage undergraduate conference attendees and involve them more directly in the field.

In addition, we oversaw the University of Richmond American Chemical Society Student Affiliates (ACS-SA) who produced a YouTube video which supplied the narrative for the “mystery” that would then be solved at the conference. Under our supervision, the University of Richmond ACS-SA prepared a fantastic fictional video, writing the story, casting parts, filming, sound dubbing, editing, and uploading the video. At the conference, students would identify clues from the video and then answer questions about qualitative and quantitative analyses based on the evidence collected at the crime scene as presented in the video. In the video, several organic compounds and various mixtures of these compounds were analyzed. The goal of the activity was for these students to analyze the data collected and determine who committed the crime or ‘Who Done It?’ It was a fantastic event! When I get free time I still enjoy climbing at Peak Experiences and hiking and camping in the Appalachian Mountains. I frequently make trips to Michigan to see my family and head to Miami with Nicole to visit her family.



Bill Myers

I am coming up on 40 years as part of the Richmond chemistry faculty, and I continue to enjoy my work. Students are still engaged, and I’d like to think I am still effective in helping them learn the things they need to learn. Barbara and I enjoy having our kids close by, with one grandson to qualify us for the status of being officially “grand” parents. I am continuing my long-term collaboration with UVA, and we continue to get a couple of papers published each year from that work. A student of mine, Diana Iovan, won the David Evans Award for Excellence in Undergraduate Research this spring, which was the consequence of hard and sustained effort and which was well-deserved. I have been able to do some traveling, including a 4,000-mile “road-trip” this May with a friend into the Great Lakes area and the upper mid-West. From the trip, we can affirm from repeated first-hand experience that a recent *Consumer Reports* article is correct when it said that Econolodge is the worst budget motel chain in the country.

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you who are financially supporting our program, we are very grateful. As a new Chair, I have quickly learned how those funds help us provide the personalized and high-quality education we pride ourselves on. Among other things, these gifts have been used to help purchase equipment, recognize deserving students with end-of-year awards, and support our undergraduate research program and community building activities. Thank you so very much.

Michelle Hamm
Chair, Department of Chemistry

Stay in touch

We love to hear from our alumni! Keep us updated by visiting chemistry.richmond.edu/contact/alumni.html or by dropping us a line at
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Upcoming Events

Mark your calendar for these special events. Please visit facultystaff.richmond.edu/~rkanter/Seminar/ for the complete Chemistry Department seminar schedule.

September 28, 2012
HHMI Science Symposium
Dr. Marion Sewer, Skaggs School of Pharmacy & Pharmaceutical Sciences, UCSD
Title: Coordinating the Stress Response: Mechanisms Regulating Cortisol Production

March 1, 2013
W. Allan Powell Lecture
Dr. Emily Carter, Princeton University
Title: TBA

April 19, 2013
School of Arts and Sciences
Undergraduate Student Symposium



Department of Chemistry students, faculty, and staff on campus for summer research in 2012.



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