

Chemistry News

Chemistry/Biochemistry Alumni Newsletter, 12th edition

September, 2014

Chair's letter: The passing of the torch

Dear Alumni and Friends,

Welcome to another edition of the Chemistry Department's Alumni Newsletter.

As I write this, the summer research students have left for a few weeks at home, the faculty are counting the days until our contracts start (two), and everyone's trying to get in a little bit of R&R and/or wrap up a few last summer projects before the onslaught that is the start of the school year here at Dear Old Roanoke.

As you've probably already noticed, Dr. Hollis' picture is not here on the cover, and instead we have a photo of me from the official "passing of the torch" party at Dr. Huddle's house, in July 2014. See how literal chemists can be? I'm smiling, but you may also be able to see I'm also a little bit worried that I'm going to set my hair on fire. Having been chair for six weeks, I'm now pretty confident that I'm not going to literally set my hair on fire while doing this job, but figuratively? Well, let's wait until the students are back and classes are in session before we make any final determinations on that one, ok?

Speaking of fires, those of you who were here after the fire alarm system got upgraded in 2009 may be impressed to hear that we got through the whole summer with only one building evacuation, despite having 19 students working on research projects. Did you know that you can set off the fire alarm by opening the liquid helium dewar in preparation for filling the NMR? Drs. Brenzovich and Miller do now!

I'm proud to report that our Biochemistry Program just became one of the first fourteen programs in the country to be accredited by the American Society for Biochemistry and Molecular Biology (ASBMB). Their review of our program included coursework, faculty credentials, student research, commitment to diversity, facilities, and institutional support. This accreditation will allow graduating biochemistry majors to become ASBMB certified through successful completion of an exit exam.

It wasn't too many years ago that we worried about upper level classes not having enough enrollment to justify offering them. That problem is solidly gone. We have 47 students in Biochemistry and 21 in Physical Chemistry! We're just about bursting at the seams. We are excited to have so many excellent students interested in Chemistry and Biochemistry. We're going to be a little less excited about the grading, but this is a great problem to have!

I hope your fall is off to a great start! Best wishes from the Roanoke College Chemistry Department!

Cathy Parisky

p.s. Don't get too worried about Dr. Hollis not being on the cover, ok? He's all over the inside of this newsletter, and as I type this, strains of "It's a Hard Knock Life" can be heard filtering down the hall from his office, so, although I'm now Chair, Dr. Hollis and his (dubious) musical selections are still with us.



In this issue

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- ◆ Egis and Sil's wedding
- ◆ SAACS news
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- ◆ Alumni news
- ◆ Student awards
- ◆ Summer research
- and much more!

News from around the Chemistry Department



Fisher Lecture

The Spring 2014 presentation of the Dr. Charles H. Fisher Lecture Series was given by Dr. R. Mark Wightman, the W.R. Kenan Jr. Professor of Chemistry at the University of North Carolina at Chapel Hill. Dr. Wightman spoke about his pioneering work in the use of microelectrodes to monitor neurotransmission within living animals. During his talk, he shared his experience blending analytical chemistry and biochemistry to unravel the mysteries of the brain, providing insight into the chemical mechanisms behind neurodegenerative diseases and drug addiction.

Science complex renovations

While we all believe that Trexler is most exciting building on campus, a few (OK, most) alumni are saying it is time for a new home. The College is actively working to establish a state-of-the-art science center, which will ultimately link the Life Sciences, Massengill Auditorium, and Trexler buildings into a united complex. This plan is one of the cornerstones of the Roanoke Rising campaign, the College's first comprehensive campaign since 2002. Back in 1969 when our facilities went online, 1103 students were enrolled at Roanoke. Today, over 2000 students vie for the classes, labs, and meeting spaces in these buildings. Teaching is completely different as well, with lectures giving way to collaborative explorations. A well-equipped lab today looks radically different than it did in '69, yet the current buildings can barely handle basic needs. While faculty and students have risen above Trexler's constraints, poor infrastructure can hinder even superior programs. We know our students deserve the kind of facility that says "Great minds are at work here!"



Through Roanoke Rising: The Campaign for Roanoke College, we hope to create a building that complements the rigor of and demand for these programs. Over the next year, fundraising for the new Science Complex will begin in earnest, with a focus on identifying and securing a lead gift for this project. This is the moment—for those of you who want to see your name (subtle hint: or your favorite professor's) on or inside a sophisticated science complex—to step up and help. We need you to make this vision a reality. We are asking for alumni and parent support, as well as financial backing from corporations and foundations. If you can help, contact Roanoke's Resource Development office at 1-866-724-4831. Together, we can create a science center of the future.



Chemistry alum receives Roanoke College Medal

Dr. Lucy Cline Weiss ('72) was one of two 2014 awardees for the Roanoke College Medal, honoring her outstanding contributions to the college and her professional accomplishments.

Weiss earned her doctorate in physical chemistry at the University of Virginia, and she completed a post-doc in biophysics at Iowa State University. Weiss later attended the William Mitchell College of Law to earn a law degree, and she became an intellectual property and patent attorney at 3M.

Weiss and her husband, Rick, now are retired and live in Roanoke. Weiss hopes to begin a new chapter in her life and become involved in aspects of the arts and mentoring.

Egis and Silvina's wedding

Visiting Assistant Professor Egidijus Zilinskas (Egis) and Silvina Guidoni (Sil) were married in a 6:00 pm wedding ceremony on the beach at Assateague Island National Seashore on Saturday, August 9, 2014.

Attending from Roanoke College were Cathy Sarisky and Tim Johann along with Dalton and Joule, Kelly Anderson, Stephanie Livingston, and Ben Huddle. The wedding was followed by a reception on the beach and a bonfire.



Congrats, 2014 graduates!

- Noah Reeve Aguayo (Biochemistry) - graduate school at Rensselaer Polytechnic Institute
- Rachel Andrews (Biochemistry) - plans to obtain a Masters in Biological Systems in Engineering
- Maura Belanger (Chemistry) - graduate school at University of Virginia.
- Chase Board (Chemistry) - Presbyterian College School of Pharmacy
- Kendra Boyd (Biochemistry) - Genetics Program at Georgia State University
- Brandon Craig (Chemistry) - teaching science in Arizona
- Romeo Easley (Biochemistry) - Nuclear Medicine Program at Regis College in Boston
- Kelsey Greene (Biochemistry) - Dental School at Virginia Commonwealth University
- Ronald Joseph (Chemistry) - Polymer Science Program at Virginia Tech
- Rose Kohinke (Biochemistry) - Pharmacy School at Virginia Commonwealth University
- Patrick Kohlhaas (Biochemistry) - Research Associate at Novozymes
- Adam Lachappelle (Biochemistry) - Disaster Medicine and Management Program at Philadelphia University
- Kaylani Miller (Chemistry) – chemistry teacher in Ohio
- Jonathan Perkins (Chemistry) - seeking employment, applying to graduate school
- Jordan Pritts (Biochemistry) - seeking employment
- Tyler Stoneham (Biochemistry) - Food Sciences Program at Virginia Tech
- Kelsey West (Biochemistry) - plans to apply to Physical Therapy Schools
- Nicholas White (Biochemistry) - Appalachian College of Pharmacy
- Casey Wojtera (Biochemistry) - Edward Via College of Osteopathic Medicine



Faculty activity highlights

This was another busy year for faculty in the Chemistry Department. In addition to teaching their classes and labs, faculty spent considerable time and effort on non-classroom activities, especially with students. Below are some highlights.

All faculty take their turn serving on faculty committees and groups. This year Skip Brenzovich is on the Curriculum Committee, Richard Keithley is on the Faculty Development Committee, and Kelly Anderson is on the Honors Program Advisory Group. Tim Johann and Gary Hollis serve on the Health Professions Advisory Group, which Tim co-chairs. Kelly Anderson is the advisor for our SAACS (Student Affiliates of the ACS) group. Stephanie Livingston is the College's Safety Officer. Cathy Sarisky completed her term as Associate Director of the Honors Program and now serves on Dean's Council.

Gary Hollis, Vern Miller and Ben Huddle continue to serve on the Executive Committee for the American Chemical Society's Blue Ridge Section.

All of the tenure-track chemistry faculty serve as academic advisors for chemistry and biochemistry majors, and for undeclared students. They also mentor research students working on research projects (see page 11). This summer (2014) we had 19 students doing research with a faculty member, including three Roanoke College Summer Scholars. Rising junior Nick Wright, working with Tim Johann, collaborated with a group at James Madison University. Kelly Anderson co-authored a paper in *Langmuir* with Hannah Nemeč ('12), who is currently in medical school. Richard Keithley, Dana Harris, and Vernon Miller also had publications this year. Gary Hollis and Skip Brenzovich had students giving presentations off-campus. All of the faculty have ongoing writing projects.

Research activity with students continues this fall. Steve Hughes, Richard Keithley and Cathy Sarisky all welcomed new URAP freshmen this year.

Chemistry faculty continue to be recognized, both on and off campus. Skip Brenzovich was named a Roanoke College Faculty Scholar, a three-year award that will give him release time to pursue his research agenda. Steve Hughes continued his consultancy with Pacific Light Technologies. Ben Huddle was the outside consultant for the chemistry department self-study at Lynchburg College. Ben also spent May 31 through June 8 in Louisville, Kentucky along with 191 other chemistry teachers grading free response answers to the equilibrium question on the Advanced Placement Chemistry Exam. He estimates that he reviewed about 5000 papers.

New toys!

Spectrophotometers

Professor Keithley secured a \$4,000 grant from the Pittsburgh Conference Memorial National College Grants Program towards the purchase of twelve new portable visible spectrophotometers. These Vernier-based systems are capable of acquiring spectra within a few seconds and can even perform selected wavelength fluorescence measurements. Physical and environmental chemistry students used these instruments in the laboratory last spring with great success, and general chemistry students will also begin using these devices in the fall.

Fast-scan cyclic voltammetry

With support from Roanoke College and a generous donation by Mark Wightman at the University of North Carolina at Chapel Hill, Professor Keithley and his students have successfully constructed a system capable of performing fast-scan cyclic voltammetry (FSCV). FSCV is an electrochemical technique that allows for the nanomolar-level detection of several species including catecholamine neurotransmitters. Roanoke College is now the first (and thus far only) liberal arts college anywhere in the country with such equipment available to students. Way to go!

More chromatography

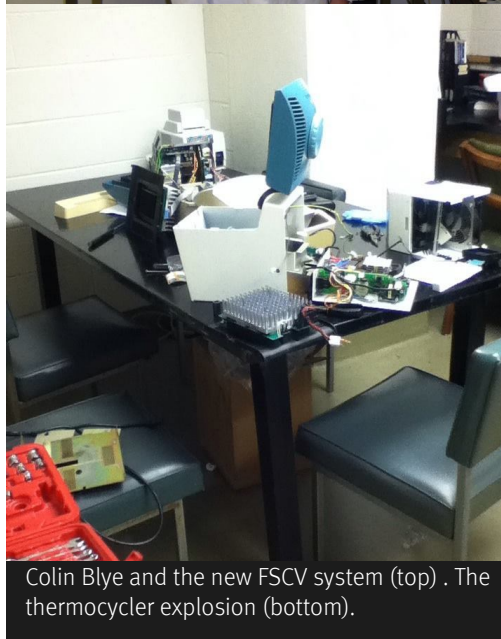
Dr. Sarisky used the last of her Cottrell College Science award to purchase a new-to-us (refurbished) HPLC and new (truly) columns. The “new” HPLC has a fraction collector and will be useful for several research projects, including analytical measurements of purines, semi-preparative protein separation, and size exclusion chromatography.

Thermocyclers

The Sarisky and Johann labs are frequent users of thermocyclers, as our alums can attest. With two thermocyclers, there was often negotiation needed in the summer and on Tuesday/Thursday mornings. When both thermocyclers died at the same time and inexpensive replacement parts were not available, we went hunting for parts machines on eBay. A couple hundred dollars and four broken down thermocyclers later, we now have two working ones. And Dr. Sarisky swears there’s a third working one still hiding in that pile of parts! Maura Belanger ('14) also built an OpenPCR system, which was promptly named “Rosalind”.

Inductively coupled plasma optical emission spectrophotometer

Last fall, the Chemistry Department acquired an Inductively Coupled Plasma (ICP) atomic emission spectrophotometer, generously donated from the Roanoke Valley Water Authority. The ICP will allow rapid elemental analysis down to near sub-ppb concentrations of many metals. A complementary technique to atomic absorption, the ICP opens the door to a greater variety of more analytical measurements for student and faculty research.



Colin Blye and the new FSCV system (top) . The thermocycler explosion (bottom).

Left: Impromptu dinner and board games with alumni, August 2014. Dr. Tim Johann (with Joule), Dr. Gary Hollis, Cody Sexton ('11), Peter Booth ('11), Jon Perkins ('14), Robbie Karim ('10), Sara Blankenship ('12), and Dalton Johann. Right: Chemistry faculty vs students volleyball game, April 2014.



Student Awards, 2014

CRC Handbook

- Shannon Barter

Bondurant Student Affiliate Awards

- Rebecca Hudon
- Jacob Johnson
- Jacob Barfield
- Hanna Lyle
- Ashley Michael
- Sarah Abdikadir
- Joshua Carr

Ronald Oetgen Organic Award

- Ross Dove

Analytical Chemistry Award

- Colin Blye

Inorganic Chemistry Award

- Fran Rowe

Lawrence and Mary Fisher Scholarship

- Cody Meadows

James Lewis Howe Award

- Rose Kohinke

Senior Scholar (Chemistry)

- Maura Belanger

Senior Scholar (Biochemistry)

- Casey Wojtera

AIC Awards

- Tyler Stoneham
- Matt Joseph

John D. Schumacher Award

- Noah Reeve Aguayo

Student Affiliate Award

- Kayla Miller
- Matt Joseph

Phi Lambda Upsilon

- Casey Wojtera
- Kelsey West
- Tyler Stoneham
- Rose Kohinke
- Kelsey Greene
- Rachel Andrews

Congratulations, everyone!



The Holiday Vest made another appearance at the SAACS Christmas party

SAACS news

SAACS had a great year in 2013-2014. We hosted two “Magic of Chemistry” shows for the first time in recent memory. Both were well attended and a lot of fun! The theme for National Chemistry Week was “Energy: Now and Forever!” Dr. Amanda Morris from Virginia Tech gave a seminar titled “Next Generation Solar Energy Solutions ... A Fundamental Perspective” to cap off the week!

An army of chemists descended upon a single waitress and short order cook at Denny’s at 6:02 am on Mole Day. The ravenous horde was patient, possibly due to sleep deprivation, and everyone was eventually served without incident.

We ended the semester with our annual Holiday Party at Dr. and Mrs. Miller’s home. There was much marvelous merriment. Delicious food was consumed, gifts were stolen, and the dancing was revolutionary. While there was a conspicuous absence of auto parts, the infamous holiday vest made a return appearance (above).

The spring featured an ACS webinar on “Love Potion #9: The Chemistry of Scent and Fragrance” just in time for Valentine’s Day. We also offered a hands-on afternoon of chemistry fun at a local afterschool program. The semester ended with a great picnic and volleyball (page 4).

With new officers in place, we are looking forward to another great year in 2014-2015.

- Ashley Nyitray, President
- Rebecca Siar, Vice President
- Laura Spilman, Secretary
- Taryn Johnson, Treasurer
- Fran Rowe, Publicity

Alumni news

Elizabeth Snyder Fisher ('46), widow of **Charles H. "Hap" Fisher ('28)** and grandmother of **Garrett Cosenza ('06)**, continues to reside at Brandon Oaks in Roanoke. Also at Brandon Oaks are **Ronald** (chemistry professor 1967 – 2007) and **Barbara Oetgen**, and **Norman** (former Roanoke College president) and **Jo Fintel**.

From **Bettie Sue Masters ('59)**: "Following the death of my husband, Robert (Bob, class of '59), I am making plans to move to Durham, NC, in late 2015 where both of our daughters are living with their husbands and children. I was appointed Adjunct Professor of Biochemistry at Duke University on August 1, 2014, and I am holding that position concurrently with my appointment here at the University of Texas Health Science Center at San Antonio until I leave. Our younger daughter, **Deborah Ann Masters Camitta ('87)**, is also a graduate of Roanoke College as are all three of Bob's siblings (**Elizabeth Lee Masters**, **Virginia Masters Leonard** and **Miles Husted Masters**)."

Jimmy Downing ('70) will be playing with the Downing Brothers Band at the Saturday, Family weekend (9/27/14) in the RC Quad for lunch.

Russ Schmehl ('76) writes: It has been a long time since I communicated with you guys so I thought I'd let you know that I'm *still* working as a full professor at Tulane University in New Orleans. The only news is that I was named the Outstanding Researcher in Tulane's School of Science and Engineering in 2014 (yee haw). I've been a full professor since 1993 and have worked at Tulane for 32 years.

Congratulations to **Sue ('75) and Bill ('71) Brenzovich** (parents of faculty member **Skip Brenzovich** and alumna **Jennifer Brenzovich '06**), on their 40th wedding anniversary, and many thanks to **Jean and Robert Kestner** for their gift to the department in Sue and Bill's honor.

We know we graduated some chemists in the **80's**, but they are apparently all too busy doing awesome stuff to send updates about it. We'd love to hear from you for next year!

Michael Drewery ('92) is an Associate Director of IT at PPD (www.ppd.com), which has a number of chemistry/biochemistry positions open. He says to send any grads who are looking for work his way. (mike.drewery@ppdi.com)

Bradley Bandera ('98) completed a General Surgery Residency with the Army and is practicing in Missouri. He is engaged to another Army General Surgeon. He writes "The Army owns me!"

Jenny Winters Jones ('99) married John Jones, PhD, in 2009. She taught on a one year contract for UT Tyler before moving to Charleston, SC in 2011, where she taught sophomore chemistry and AP environmental science for two years at Ashley Hall, a private all-girl college preparatory school. John was hired on a tenure track position at TSU in Kirksville, MO, which resulted in the family moving again last year. She is presently a Temporary Instructor of Chemistry at TSU. Jenny and John have two daughters, Joanna and Jessica.

Burt Hollandsworth ('99) writes: "Not much has changed with us recently. No additional kids and both of us are plodding along with the same job descriptions." He is an Associate Professor at Harding University.

Caleb Kroll ('01) is currently working in private practice in interventional pain management in the Baltimore area. After he finished with the Air Force he did an anesthesiology residency at Johns Hopkins, and then an additional interventional pain fellowship for one year at Johns Hopkins as well. Caleb also added a new child to the Kroll clan, a son named Hunter.

Alissa Ashley-High ('03) is married to Dr. Giza High (an emergency department physician) and lives in Shrewsbury, MA with their two cats. She works as a nurse manager, wound care specialist, and nurse orientation educator for a nursing rehabilitation center in Marlborough. Alissa also has a condo in Virginia Beach that she visits every month or two.

Melissa Carr ('05) was recently awarded the ACS Blue Ridge Chemical Society Outstanding High School Teacher of the Year Award. Each summer, she participates in the VDOE Test Items Review Committee for the SOLs in Chemistry. This past summer, she also worked alongside of post-docs at Virginia Tech in a Research Experience for Teachers program.

Joseph Stephens ('03) and **Alex Stephens** welcomed their first child, Lincoln Stephens, in October 2013.



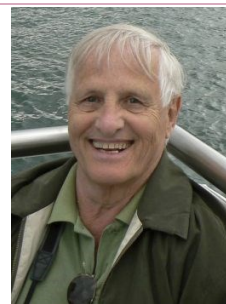
In memorium: Robert “Bob” Sherman Masters (’54)

Bob was born in 1932 in Roanoke, VA and died on June 4, 2013, in San Antonio, TX, two days after his 81st birthday, from complications from B cell non-Hodgkins lymphoma.

Bob graduated with a degree in Chemistry from Roanoke College, where he fell in love with both Physical Chemistry and one of his classmates, **Bettie Sue (’59)**. Bob and Bettie Sue were married, blessed with two daughters, and shared an exciting life together.

According to his obituary, Bob “enrolled in naval flight training in Pensacola, Fla., but returned to Roanoke to finish his degree afterward. Flying had long been a goal, and he was thrilled when he was chosen for the program, his wife said. He served in the Marine Corps on active duty and as a reservist for 27 years.

“The couple then lived in Durham, N.C., where he finished graduate school and started working for Scientific Products of American Hospital Corp. When he was promoted to sales manager, they moved to Dallas. During their years there, Masters decided to start a travel agency in addition to his sales career. When Masters decided to switch careers after Scientific Products was bought out, he told his wife, ‘I want you to make the decision on where to go next.’ Her job took the family to Milwaukee, where Bob started working for Variable Annuity Life Insurance Co. after learning the securities and annuities industry. When his wife was offered an endowed chair at the University of Texas Health Science Center in San Antonio, the couple moved back to Texas. In retirement, Bob Masters was able to travel more, including taking his grandchildren on family trips to Europe twice in the past few years.”



Chris Berndsen (’03) started as an assistant professor in the Department of Chemistry and Biochemistry at James Madison University in 2012. His wife Amy works at Merck. Daughter Olivia Madison was born in June of 2014.

Matt Pofel (’04) is a Quality Engineer at Patheon, a softgel drug manufacturer. He works on event management and continuous improvement for both the commercial and research and development sides of the business.

Michael Wolter (’04) has been living in Greencastle, PA for over 5 years now. He is a dentist at Chambersburg Family Dentistry. His wife Anne is starting her 2nd year of teaching middle school at Antietam Academy in Hagerstown, MD. They have a 3 year old son, Bradley, and he is keeping everyone entertained!

Amandaa Bostick Brewer (’05) currently works at Tosoh Bioscience LLC as the GPC Sales Support Leader overseeing the technical support and marketing of the GPC product lines. She and her husband, Justin, live in the Philly Suburbs with their dog, Nokie. She says, “I enjoy seeing Roanoke alumni, professors and current students at national tradeshow throughout the year.”

Jessica Worsham (’05) is currently working at the United States Patent and Trademark Office examining pharmaceutical patent applications. When not working, she is out and about traveling to as many places as possible.

Kelly Bowen Hastedt (’05) will complete her MA/Ed.S in mental health counseling next year. She hopes to teach at the college level part time and work as a counselor at either a private practice, college, or hospital setting. Kelly and Matt just celebrated their five year wedding anniversary.

Megan McDonald (’05) writes: “I’m finishing up my 6th year of practice as Physician Assistant at Gastroenterology Consultants in Roanoke. I’m looking forward to treating a large number of Hepatitis C patients with new therapies coming to market this year. Hep C is my niche in the office. Reese is 3 and Aubrey is almost 2. Brady and I stay busy with the girls on our farm taking care of cows, chickens and pigs.”



Whitney Fitzwater (’11), Dr. Kelly Anderson, and Peter Booth (’11), Alumni Weekend 2013

Mike Cashin (’06) is teaching Physics at Permian High School.

Soon after earning his Biochemistry degree, **Garrett Cosenza (’06)** moved west to begin a career that combines science with art. He completed his formal winemaking training at California State University-Fresno and is now settled in Sonoma County. Garrett is the Assistant Winemaker for Paul Hobbs Wines, focusing on Chardonnay, Pinot Noir, and Cabernet from some of the finest sites in the North Coast.

Kimberly Mason (’06) is working as a metallographic lab technician at a production plant for medical device components. Her son Micah will be five in September.

Nida Ansari (’06) writes: “So I’m still working for MWV out of Kansas City. I work as a Global Category Manager in the Home, Health and Beauty division of the company. I

(Continued on page 8)

Alumni news *(Continued from page 7)*

work on the plastics side of business and I manage product lines, projects, assets, capacities, etc. But I also work on high level marketing activities, strategy sales training and have a special passion around business development. I travel a fair amount for work, and have had the good fortune to see the world with this job. I don't know of any RC alums in the area, but if you or anyone you know wants to stop by there, I can take you guys out for some amazing barbeque!"

Becca (Winship) Lenzo ('07) married Alex Lenzo, a graduate of Wheaton College, in May, 2012. She graduated from the University of Pennsylvania's Accelerated Bachelor's of Nursing Science program in December of 2013. While in nursing school, she worked as a Research Assistant in the Hematology-Oncology department of UPenn's Medical School. She is now working as a Registered Nurse Case Manager for KeystoneCare, a non-profit agency which provides homecare nursing services to patients in the Philadelphia region. When not at work, she enjoys running, cooking, and reading.

Zack May and **Brittany Cannon May ('07)** have settled their roots back in Southwest Virginia. After Roanoke College, both of them attended MCV/VCU where they obtained their Doctorate of Pharmacy. Zack is currently the pharmacy manager at Rite Aid and Brittany is staff pharmacist at Walgreens. They are also currently expecting their first set of children: a twin boy and girl.

Liên-Thành Kratzke ('07) attended Eastern Virginia Medical School in Norfolk, Virginia and then moved 4,690 miles away with her cats and now-husband to complete an internal medicine residency at the University of Hawaii. She is now working as a hospitalist for Kaiser and is planning on staying in Hawaii where there are endless rainbows, tropical fruits, beaches, and hiking trails.

Beth Tucker Cook ('07) earned her National Board Certification in Chemistry in 2013. She has also enjoyed getting back into hiking after having hip surgery.

From **Derrick Botkins ('07)**: I am happily married living in Chester Va. Michelle and I are expecting our first child, a baby girl in October. Since graduating Roanoke College I have received a Pharm.D from Virginia Commonwealth University. I currently work for Parallon as a team supervisor where I oversee pharmacy order entry and review quality for 5 hospitals in 3 states.

Sara Jamison ('07) is at Ferrum College as Director of Advancement Services.

Alissa Gadpaille ('08) writes: "I'm living in Birmingham, AL. I'm in my third year of neurology residency, hoping to do a fellowship in epilepsy. I also recently flew to Italy in June and got married there!"

From **Samantha Strickland Hoopes ('08)**: I am married to **Robby Hoopes ('06)** and we just welcomed a little boy, Hayden Michael Hoopes, into our family on July 17th! I just finished my first year as a postdoctoral fellow at the National Institute of Environmental Health Sciences in the laboratory of Dr. Darryl Zeldin, the Scientific Director of NIEHS. I plan to continue there for several more years completing work on eicosanoids and the cardio/vascular system. In my free time, I still love crossfit and my obstacle racing!

Peggy (Harnos) Soublo ('08) has been working as a Field Service Engineer at Agilent Technologies since 2008. She supports Agilent's GC, GCMS, LC, ICPMS and BioAnalyzer products. She travelled to Tokyo, Japan in June for her ICPMS training. She recently became the Team Lead for the Maryland, DC and Northern Virginia area, managing her colleagues' concerns and ideas to move the district forward. She currently lives in Northern Virginia with her husband, Will.

Hillary Hudgins Goldsmith ('08) got married in June to Adam Goldsmith and had a great honeymoon traveling to the Baltics. They are living in Richmond.

Kelly Fletcher ('09) was recently promoted to Research and Development Manager and just launched her first start-to-finish retail product (gluten free chicken nuggets) in Trader Joe's stores.

Josh Amick ('09) went on from Roanoke College to earn a degree in chemical engineering at NC State. He moved to Blacksburg about 2 years ago where he works at Celanese as a process engineer.

Stacey Myslinski ('09) is currently living in New Jersey, working as a Forensic Scientist in the Drug Chemistry department for the New Jersey State Police.

Nick Marks ('10) is married to **Sara Wittenburg Marks ('11)** and living in Richmond, VA. Nick is currently enrolled in an 18



Colin Briggs ('13) and Jeremy Stegall ('09), Alumni Weekend, 2013

month accelerated BSN program at VCU class of 2015, graduating December of next year.

Katie Blaney Seachrist ('10) is a third year student at West Virginia University School of Medicine. After receiving her MD, she plans to pursue a residency program in combined medicine & pediatrics. She and her husband love living in the hills of WV, and have great memories of the wonderful people at Roanoke College & Mill Mountain Coffee.

Anne Brown ('10) is currently a Ph.D. candidate in the biochemistry department at Virginia Tech. Her research focuses on using computational methods to understand the underlying mechanisms of amyloid beta-peptide and its role in Alzheimer's disease toxicity. She hopes to pursue a career in academia upon graduation.

Robbie Karim ('10) is in his fourth year of pharmacy school and working on rotations in numerous areas of pharmacy. He likes cardiology, infectious disease, and pediatrics, as well as studying chronic disease states like diabetes and congestive heart failure.

Kristen Clare ('10) has recently switched jobs and is now working in drug development management at Takeda Pharmaceuticals in Cambridge, MA.

Whitney Fitzwater ('11) had a busy January! Not only did she become a Forensic Chemist for the Delaware State Police, but she also became engaged to her fiance Joshua Smith.

Greg Morgan ('12) is currently in his 3rd and final year of physical therapy school at the University of Maryland Eastern Shore. He is interested in neurological rehabilitation, especially for traumatic brain injuries or stroke. He says, "I am thankful for Roanoke College on getting me prepared for reading scientific literature which I have had to do a lot so far in school. I am excited to begin my career as a physical therapist beginning next year!"

Adam Skaff ('12) just began his third year of medical school at WVU school of medicine and is doing rotations at Charleston Area Medical Center.

Sara Blankenship ('12) passed her candidacy exam and has been admitted to the Ph. D. track at UVA. She is working with Dr. David Cafiso on molecular mechanisms of membrane transport. Congrats, Sara!

Kevin Smee ('12) is finishing up a Master's in Biomedical Sciences at U. Mass Medical Center.

Nick Plymale ('12) is working at Inorganic Ventures in Christiansburg as a Quality Control Tech.

Cassie Elverum ('12) earned her EMT certification and has used that to get a job at the Children's Hospital of the King's Daughters in Norfolk, VA; she also volunteers as an EMT for the city of Virginia Beach. She has accepted a position at a PA school in New York while she waits on some additional interviews. When not studying or working, she enjoys doing triathlons and being with friends and family.

Robert Gibson ('13) is currently a laboratory coordinator for a rapidly expanding European-based biotechnology company (Novozymes). His research spans anywhere from probiotics for animals to microbial colonization of wastewater plants. He says "The knowledge and skills I acquired during my time at Roanoke College have allowed me to play a crucial role in a number of diverse projects. I am very fortunate to have the colleagues and advisors, both in academia and industry that continue to challenge me in all aspects of my career."

Rachel Dellehunt ('13) is in her second year of medical school at Campbell University School of Osteopathic Medicine in North Carolina. She says, "I love every second of it and am thankful for the preparation and guidance I received at Roanoke to help get me where I am today!"

Heather Anthony ('13) will be graduating from Jefferson College of Health Science's accelerated Bachelors of nursing program in December.



James Lee instructs students on his company's tetrafluoroethylene-propylene copolymer, AFLAS®, at STEM Academy.

James Lee ('13) will be attending the International Elastomer Conference 10/14-10/16 in Nashville, TN, representing his employer (AGC) and a partner company (Zeon) at the expo.

Kayla Muncy ('13) is a second year veterinary student at Virginia Maryland Regional College of Veterinary Medicine. She is on the small animals track, but has an interest in exotics and pocket pets as well. She says, "Going to Roanoke College definitely prepared me for vet school. My experience in chemistry made some of my science courses (especially Biochemistry) easier for me than most of my classmates! I appreciate how great the professors are at Roanoke College and how much they cared about my future."

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Alumni news *(Continued from page 9)*

Chase Board ('13) writes: "Hello from the great state of South Carolina. I recently moved to the small town of Clinton to further my education at the Presbyterian College School of Pharmacy. The atmosphere around here reminds me a bit of Roanoke College. The faculty, staff and classmates have really helped me feel at home."

Rachal Crum ('13) is in her second year at Edward Via Virginia College of Osteopathic Medicine. She is headed to Honduras for a week in April 2015 to volunteer in clinics there. Rachal also shared her news that a stem cell transplant has put her dad, Tim Crum, into remission from non-Hodgkins lymphoma. Great news!

Jeremy Johnson ('13) is currently in his second year in the MD/PhD program at the University of Kentucky College of Medicine. After he finishes his second year, he will transition to graduate school to start working on a PhD. He is going to enter the Department of Biochemistry, and will be joining the lab of Sylvie Garneau-Tsodikova. His plans are to work on drug synthesis and enzymology.

Kendra Boyd ('14) is earning a Master's degree in Biology from Georgia State University with a Concentration in Biochemistry and Molecular Genetics. She works for the Bio-Bus program, a mobile laboratory that travels to Georgia schools and libraries. They present different hands-on science based activities to students from kindergarten through 12th grade to expose students to science early and get them excited about learning it later in their academic careers.

Tyler Barnes ('14) is attending her first year of veterinary school at Cornell University. She plans on working in the Cornell Teaching Dairy Barn after she completes her first block of didactic classes. Right now, she is interested in pursuing equine and production animal medicine.

Pati McGahern ('14) is a brand new bioengineering master's student at the University of Pennsylvania. She writes: "I am already confident that my time at Roanoke has prepared me well for my MSE. My research experience and TA experience as an undergrad have helped me get interviews for lab positions and TA positions here at UPenn. I definitely feel that graduate school was the right choice for me, and I eagerly await discovering what kind of opportunities will arise!"

Kelsey Greene ('14) is currently attending VCU School of Dentistry. In the first few weeks she is already carving maxillary incisors out of wax, dissecting cadavers, and prepping carries. She hopes to work as a general dentist in Central Virginia.

Marguerite Ballou ('14) is currently taking biochem at the VCU School of Medicine. She writes: "It has been pretty cool when my professors ask me to understand something and I already do because I had to truly understand why it worked at Roanoke in order to do well, which is something that I don't really see with all of my other colleagues. Yeah, some might be better at memorization but what truly matters is understand how things work in the long run when you have to apply the knowledge- so I am extremely grateful for that!"

Racheal Andrews ('14) is taking a year off and working as a pharmacy tech.

Noah Reeve Aguayo ('14) writes: "Everything is about to get started at school. I've gotten my TA assignment, I'll be TAing an introductory bio class, and lab rotations start at the beginning of September. I've only got one course I have to take, called Core Course that is taught by the majority of the professors in the department where each professor essentially does a section on their specialty throughout the fall and spring semester."

Maura Belanger ('14) writes: "It's been a little busy over here, learning how to grade and be a good TA! I've got 4 sections that I am in charge of. We haven't picked groups but that should happen around Thanksgiving. So far things are going well here."

Nick White ('14) started at the Appalachian College of Pharmacy this fall where he is working towards his PharmD. He says, "Thanks to Roanoke College, for helping this dream come true."

While **Matt Joseph ('14)** joined the College intending to pursue medicine, he completed two summer internship programs at Virginia Tech in Polymer Chemistry, took all his classes at Roanoke, and found a new passion in chemistry. Matt says "The chemistry department at Roanoke is excellent; hopefully, I will represent them well during my graduate career!"

Brittany Zartmann ('14) has started an apprenticeship in Vermont working with a horse breeder for a year and is loving it! She says, "if there's anything that Roanoke has taught me, it is to never shy away from new opportunities, but rather take them head on and embrace them for all they are worth."



Rachal Crum ('13) was in Australia over Christmas 2013 to visit her boyfriend, Shea Maple (not pictured).



Ann Wheelock ('14) and Kelsey Green ('14) on their first day at VCU.



Thank you!

To all of our alums, family, and friends: Thank you for your many generous gifts to the Department. Your gifts allow us to continue to grow and excel. Your gifts last year helped to fund summer research stipends for students, new pipettes for Biochemistry lab, and start-up packages for our two newest faculty members.

Alas, our traditional senior gift (a briefcase with the RC logo) still comes without a laptop. Our grads have to take care of that part themselves. Sorry, Romeo!

Summer research

- Sarah Abdikadir (with Prof. Dana Harris) – Predicting Mass Spectra of Phenethylamines and Analogs
- Colin Blye (with Dr. Richard Keithley) - Calibration Methodology for Fast-Scan Cyclic Voltammetric Measurements
- Allison Denton (with Dr. Skip Brenzovich) – Synthesis of Diarylacetic Acid Derivatives using the Novel Catalyst Silica Sulfuric Acid
- Ross Dove (with Dr. Skip Brenzovich) - Palladium-Catalyzed Aryl Transfer Reactions in Organic Synthesis
- Sarah Dvorak (with Dr. Steve Hughes) – Synthesis and Characterization of Copper Indium Sulfide Nanocrystals
- Matt Kessler (with Dr. Steve Hughes) - Synthesis of Silver Gallium Sulfide Nanoparticles
- Dana Layo (with Dr. Gary Hollis) - Synthesizing Thermal Self-Healing Polymer Dienes
- Jacob Leatherwood (with Prof. Dana Harris) - Identification of Problematic Aminoalkylindole Synthetic Cannabinoids through Mass Spectrometry Fragmentation Analysis
- Cody Meadows (with Dr. Skip Brenzovich) - Exploring New Reactions with Palladium
- Allison Michaels (with Dr. Egis Zilinskas) - Cloning and Expression of Methyltransferase RumB
- Lydiah Mpyisi (with Dr. Tim Johann) - Understanding the Four Glutamine Synthetases found in *Mycobacterium tuberculosis*
- Jake Norris ** (with Dr. Tim Johann) - Determining the Significance of the InhA “Substrate-Binding Loop” in the Construction of Mycolic Acids
- Jonathan Rose (with Dr. Kelly Anderson) – Vapor Density and Temperature Effects on Nucleation
- Fran Rowe ** (with Dr. Kelly Anderson) - Monte Carlo Simulations of Ethers and Fluorinated Alkanes Adsorbed at an Au (111) Surface
- Rebecca Siar (with Dr. Cathy Sarisky) - Purification and Analysis of the Genomic DNA and Proteins of *Sulfolobus solfataricus* Involved in the Purine Biosynthesis Pathway
- Chris Stocki (with Dr. Richard Keithley) - Measuring Photosynthetic Oxygen Using Fast-Scan Cyclic Voltammetry
- Mackenzie Sullivan ** (with Dr. Skip Brenzovich) - Optimization Studies of a Palladium-Catalyzed Aryl Transfer Reaction
- Tom Wells (with Dr. Gary Hollis) - Synthesis of Self-Healing Polymers for a Diels-Alder Reaction
- Nick Wright (with Dr. Tim Johann) - Structural Characterization of *Mycobacterium tuberculosis* DNA Gyrase
- Kate Yakuboff (with Dr. Gary Hollis) – Developing a Kinetics Experiment for an Introductory Organic Chemistry Laboratory

** Indicates a Roanoke College Summer Scholar

Student presentations

Our current majors presented their research results at every possible on-campus showcase and also gave talks and posters at regional meetings, like the VBRS undergraduate poster session at Radford University. Two of our student collaborators (Rose Kohinke and Allison Denton) presented posters on their work in the area of Green Chemistry at the national ACS meeting in Dallas, TX in March. In addition, Rose Kohinke presented a poster at Radford in April 2014 in honor of her James Lewis Howe award.

In July of 2014, Fran Rowe and Jonathan Rose travelled with Dr. Kelly Anderson to the MERCURY Conference in Pennsylvania where they presented their work in Computational Chemistry.



Save that date!

This spring, April 10th at 4 pm, **Amandaa (Bostick) Brewer '05** will be giving our annual alumni lecture. Amandaa, who currently works at Tosoh Bioscience, will be speaking about polymer characterization by chromatography. As always, our alumni lecture coincides with alumni weekend, April 10-12, so stop by, say hi, and learn a new thing or two about polymers!



Please keep in touch! We look forward to hearing from you! (Left to right) Debbie Duncan, Tim Johann, Steve Hughes, Ben Huddle, Richard Keithley, Kelly Anderson, Gary Hollis, Gwen Sibert, Stephanie Livingston, Skip Brenzovich, Cathy Sarisky, Egis Zilinskas, and Vern Miller.

Contact us

We always love to hear from you!

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