Note from the Chair

Greetings from Chemistry at Roanoke College! We miss you and want to catch you up on an eventful year. It began with the loss of one of our strongest supporters and cheerleaders, Dr. Hap Fisher. At the age of 104, Hap passed away last May after living a full life and excelling in the profession that he loved. As a career chemist, Hap made a difference through his work. For many of you reading this newsletter, he also made a big difference in your training in chemistry. Hap's generosity allowed scores of students to be paid as they spent the summer doing research at Roanoke. On alumni surveys, the research experience always ranks at the top. Thank you, Hap, on behalf of us all.

Change has been in the air at Roanoke. Dr. Jack Steehler has left the department to take on the role of Director of Institutional Research at Roanoke. After leading our efforts in Analytical Chemistry and ably serving a term as our department’s chair, Jack is now helping out on a more collegewide basis. His care in the lab, his rigor in the classroom, and his dry sense of humor will be missed in Trexler. Dr. Gail Steehler has temporarily followed Jack to the Administration building, where she is in a three-year term as Associate Dean. In this position, she is leading the charge as Roanoke begins to implement fully our newest General Education curriculum, called the INQ curriculum (short for Intellectual Inquiry). Chemistry is participating in the INQ program by teaching freshman seminars and other courses for our nonscience majors that are themed around forensic science, environmental science, and nutrition.

And more change is in store for the department. Even as we welcome Dr. Skip Brenovich, our second Organic Chemist, and Mrs. Debbie Duncan, our new Department Secretary, we prepare to say good bye to two longtime faculty members. Dr. Pam Turpin has been a Teaching Associate in chemistry since 1987, prepping and teaching our lower division labs with care and with a smile on her face. Dr. Ben Huddle came to Roanoke College in 1968 (when I was in the 2nd grade), served as department chair for 20 years, and has taught over 5,000 students at the College. Beloved by students, Ben has been recognized with both the Dean’s Award for Exemplary Teaching and the Dean’s Award for Exemplary Service. His demos in gen chem are legendary, and some students have even said he made p chem fun (honk). Pam and Ben will retire at the end of this academic year, and they will be missed. Though two are leaving, we will have a new addition this summer when Dr. Cathy Sarisky and Dr. Tim Johann will welcome baby Joule to Roanoke. Two adjuncts are helping the department this spring. Mrs. Gwen Sibert, a teacher recently retired from the Roanoke Valley Governor’s School, and Mr. Dana Harris, who currently works at the Regional Forensic Science Lab, are teaching in our General Chemistry Lab and INQ 230 courses.

We are proud of our community in the department, and at the heart of this community are our students! Last summer, we had 17 students who worked in our research labs with our faculty, and these projects have led to several publications and to many, many presentations. These presentations let the broader chemical community know what we are doing at Roanoke College. In May, we will be sending graduates into chemical industry jobs, to graduate schools in chemistry and biochemistry, and to medical, dental, and pharmacy school. Our classrooms are burgeoning, and we have a steady number of biochemistry and chemistry majors. We had a record number of students in our Honors General Chemistry class last fall and have a record number in Advanced Organic this spring. Dr. Vern Miller is teaching our Environmental Chemistry course this semester and is buzzing with excitement as he explains 2D NMR to our sophomores. Under the leadership of Dr. Kelly Anderson, our SAACS group is very active with multiple events for the department throughout the year.

Things are good at Dear Old Roanoke. We are working hard, and we are trying to have as much fun as we can while we work. Please keep in touch with us, by coming to Alumni Weekend, by stopping for a chat or lunch when you are in town, by sending us a holiday greeting, by emailing, or by posting to Facebook. Until we see you next, may you be blessed with pure products and high yields.

Gary Hollis
For many years, staffing in the Chemistry Department had remained constant. Gary Hollis, who came in 1996, was the “new guy.” In the last several years, we have had many changes in the department, so this section will try to bring you up to date.

Ben Huddle retires this year. (See “Last Gasp” later in this newsletter.) His replacement is Kelly Anderson, now in her third year. Kelly comes from the University of Puget Sound and the University of Minnesota. She teaches Physical Chemistry and other courses in the department.

Pam Turpin also retires this year. Her replacement is Stephanie Livingston, now in her third year. Stephanie comes from George Fox University and the University of Vermont. She teaches Inorganic Chemistry and other courses in the department.

William “Skip” Brenzovich joins us as our new Organic Chemist. He comes from William and Mary and Scripps Institute, and a postdoctoral stint at the University of California at Berkeley.

Jack Steehler has left the department to become Director of Institutional Research. We will be searching for a new Analytical Chemist next fall. Vern Miller taught Instrumental Analysis this year.

Gail Steehler has agreed to an additional two years as Associate Dean for General Education. We have hired Egidijus “Egis” Zilinskas as a Visiting Assistant Professor with a two-year appointment. Egis comes from Lithuania, with a Ph.D. in Biochemistry from Montana State University. He is currently at Hamilton College. His primary assignment will be in General Chemistry, with other courses as appropriate.

Gwen Sibert joins us after teaching high school chemistry at William Fleming, Roanoke Catholic and the Governor’s School. She has a one-year appointment, teaching primarily General Chemistry.

Dana Harris continues next year as an adjunct instructor. Dana has degrees from Radford University and Virginia Tech, and is a full-time Forensic Chemist at the Regional Crime Lab in Roanoke. He teaches Forensic Chemistry and General Chemistry Lab for us.

Shirlann Jones, our Chemistry Department Secretary, has moved to Resource Development. Our new secretary is Debbie Duncan.

And in a different kind of staffing change, Cathy Sarisky and Tim Johann are expecting their second child this summer.

Ben Huddle, Kelly Anderson, Stephanie Livingston and Skip Brenzovich display their “Chemistry of Tie Dying” expertise.

Gary Hollis, Skip Brenzovich, Vern Miller and Tim Johann hard at work celebrating Gary’s birthday.
Student Affiliates’ Year in Review

In the fall, SAACS members elected the following officers:

Co-President: Hannah Nemec
Co-President: Jonathan Perkins
Vice President: Kayla Muncy
Secretary: Selena Watkins
Treasurer: Jeremy Johnson
Activities Coordinator: Casey Wojtera
Publicity Manager: Sarah Ahlbrand

The academic year started with a SAACS-sponsored Faculty-Student volleyball match. The faculty clearly need to work on their volleyball skills as the students won this round handily (3 games to 0). In October, SAACS put on a very successful “Magic of Chemistry” presentation at Fall Family weekend. National Chemistry Week was marked by the periodic table made of cupcakes, a “guess a mole” contest, and a poster session about “Our Health, Our Future!” The annual Mole Day celebration was held a few days late due to Fall Break, and, in a break with tradition, we celebrated a Mole Day dinner rather than a breakfast. The end of the Fall term was marked with a holiday party where even Dr. Johann was talked into playing “Dance Dance Revolution.”

Due to new policies on campus, a new group of officers was elected to serve for the 2012 calendar year:

President: Jonathan Perkins
Vice President: Reeve Aguayo
Secretary: Casey Wojtera
Treasurer: Jeremy Johnson
Activities Coord./Publicity: Kayla Muncy

This spring, SAACS is selling review books for the ACS standardized exams as a fundraiser, participating in an on-campus girls’ science exploration day with the FEMMES group, and coordinating a science event with local Boys Scouts. At the end of April, we will celebrate another successful year of chemistry with the renewal of the Faculty-Student volleyball series.
Meet The New Folks

William “Skip” Brenzovich

Joining us this year as Assistant Professor of Chemistry is Skip Brenzovich. Skip is a native Virginian, receiving his bachelor’s degree in chemistry from the College of William and Mary, and his Ph.D. in Organic Chemistry from the Scripps Research Institute in California. He also has postdoctoral experience at the University of California at Berkeley.

Skip’s primary teaching responsibilities will be in Organic Chemistry and Organic Chemistry lab. He will also participate in the freshman writing course; he is currently working on a section of INQ 110 called “Forensic Science: The Science Behind CSI”.

His research interests focus on synthetic organic chemistry. One project is the use of catalytic palladium metal to synthesize hydroxyproline derivatives. Another project is the synthesis of molecules which will bind to heavy metals in the environment and either change color or become fluorescent.

Skip will also begin advising freshmen and chemistry majors, as well as other duties in the Chemistry Department and on campus. His hobbies include reading, hiking and camping.

Some of you may remember Skip’s sister Jennifer. Others may remember Skip’s father and mother Bill and Susan.

Deborah Duncan

Deborah Duncan is our new Chemistry Department Secretary. She is a native Salemite and a Roanoke College graduate (Accounting). Her husband, Ron, is an engineer. Debbie and Ron live in Salem and have two girls attending local schools. They also have a seventeen year old cat named Chinook. You can reach Debbie at 540-375-2441 or duncan@roanoke.edu. Stop by and say “Hi”.

Gwen Sibert

Our newest General Chemistry Professor is Gwen Sibert. Gwen grew up in Alabama. She received her bachelor’s degree from Jacksonville State University in Alabama and her master’s degree from Hollins University. Gwen officially retired from teaching at the Roanoke Valley Governor’s School in June, 2010. She has been married to Alan for fifty years. Alan is retired from the US Army. They have a son who is an Oracle DBA in Alabama and a daughter who is a Product Manager at SAS in North Carolina and three sweet grandsons. Her hobbies include “stamping”, reading and working on her webpages. Gwen thinks that chemistry is the ultimate subject to study.
Dana Harris

Dana Harris is our adjunct instructor for non-majors “Crime and Chemistry” and General Chemistry Lab. After growing up in North Carolina, he received his bachelor's degree from Radford University, a Master of Divinity degree from Southern Theological Seminary and a Master's Degree in Chemistry from Virginia Tech. Dana is married to Wendi and they have a young daughter. Dana and Wendi enjoy taking their daughter camping and “farming” flowers in the yard. Whenever there is free time (which Dana has very little of since he is also a full-time Forensic Chemist at the Regional Crime Lab in Roanoke), he enjoys reading philosophy, art and nature photography, and hiking the local hills.

Gary Hollis and students at the Chemistry Magic Show during Parents' Weekend, September, 2011.

Scenes from the Department

Celebrating Gary’s Hollis’s birthday, August, 2011.

Beth Tucker Cook’s (‘07) Chemistry Class recently attended a lab with Ben Huddell.
Casey Wojtera with her “Chemistry of Shampoo” Poster Presentation.

Rebecca Siar displays her “Chemistry of Popcorn” Poster Presentation.

Student Awards, 2012

CRC Handbook - Rebecca Anne Siar

ACSSA Awards - M. Grace England, Cody A. Meadows, Michelle L. Pasier, Mackenzie W. Sullivan

Ronald Oetgen Organic Award - Christopher M. Tripp, Tyler R. Stoneham

Analytical Chemistry Award - Jeremy A. Johnson

Inorganic Chemistry Award - Selena R. Watkins

Fisher Scholarship - Meagan R. Tolley

James Lewis Howe Award - Kevin M. Smee

Senior Scholar (Chemistry) - Hannah M. Nemec

Senior Scholar (Biochemistry) - Kevin M. Smee

AIC Awards - Caroline A. Hunter, Nicholas I. Plymale

Merck Award - Adam M. Skaff

Schumacher Award - Sara A. Blankenship

Student Affiliate Award - Jonathan C. Perkins

Phi Lambda Upsilon - Kaitlin Scott Daniels, Hannah M. Nemec, Kevin M. Smee, Selena R. Watkins
Our Seniors

Madeline Gerald (Biochemistry) - considering graduate school
Adam Skaff (Biochemistry) - going to medical school at West Virginia University
Selena Watkins (Chemistry) - accepted at multiple dental schools
Kevin Smee (Biochemistry) - applying to graduate programs in immunology
Colin Briggs (Chemistry) - seeking employment
Hannah Nemec (Chemistry) - accepted a position in the medical school at VCU
Sara Blankenship (Chemistry) - going to graduate school at the University of Virginia
Caroline Hunter (Biochemistry) - applying to graduate schools in Biochemistry
Cassandra Elverum (Biochemistry) - applying to Physician’s Assistant programs
Katie Scott Daniels (Biochemistry) - applying to Physician’s Assistant programs
Nicholas Plymale (Chemistry—Not pictured) - applying to graduate schools in Chemistry

Last Gasp

Chemistry Seminar
Benjamin P. Huddle
Friday, April 13, 2012 (No Foolin’), Massengill Auditorium at 4:00 pm

I have been given the opportunity to give one final lecture, my “Last Gasp” before retiring. I am going to tell you a story, called “A Tale of Two Molecules”. This is a true story with a mystery, a plot, heroes and villains. I thought I would reminisce a little bit, but after having taught chemistry for 44 years I can’t resist the chance to pass along a few take-home lessons. Come and join me.

Image from femmefan.com, 17 December 2011
Roanoke College Chemistry Department News

News from Alumni

Dr. George Abraham Father of Christina Abraham (‘77) and Marian Abraham (Biology ‘77) passed away in Roanoke on December 10, 2010.

Nida Ansari (‘06) is currently Global Program Manager at MeadWestvaco in Grandview, Missouri.

Chris Berndsen (‘03) is finishing up a postdoctoral project at Johns Hopkins School of Medicine and considering tenure-track positions in Biochemistry.

Kristen Clare (‘10) is currently a Regulatory Strategy Intern at Pfizer Pharmaceutical Company in Wayne, Pennsylvania.

Sarah Pauline Cohen (‘11) was co-vedictorian of the Class of 2011. She is currently attending medical school at the University of Pittsburgh.

Kaitlin Scott Daniels (‘12) was married in May 14, 2011 in Roanoke College’s Antrim Chapel to Bradley Daniels. Bradley, who is from Marion, Indiana, is a police officer for Roanoke City.

Charles H. “Hap” Fisher (‘28) passed away on May 13, 2011 in Roanoke. Please see article in newsletter.

Jennifer Winters Jones (‘99) is currently a chemistry teacher at Ashley Hall in Longview, Texas.

Carl Burton (‘99) and Heather Turner Hollandsworth (‘99) are parents of to their third son, Charlie, born on December 29, 2011. Charlie joins big brothers Will and John. Heather received her Masters in Education in July from Harding University. Burt and Heather both teach in the Chemistry Department at Harding University in Searcy, Arkansas.

Sara K. Keller (‘08) received her D. O. from Ohio University College of Osteopathic Medicine in August, 2011.

Erich Alfred Quer (‘43) passed away on August 29, 2011. Dr. Quer received his M.D. from Albany Medical College in 1944 and spent most of his life as a surgeon in Kansas City.

Robert Lentz (‘85) is currently the manager for Northern Indiana and Southwest Michigan for Stonhardt, a national polymer floorings and linings company. He lives in South Bend, Indiana with his wife, Jan (Currie ‘86), high school senior Harry, and sophomore Emily.

Michael Leonard (‘98) is currently Director of Engineering R&D at PepsiCo in Purchase, New York.

James Ian Lowdon, Sr Father of J. Ian Lowdon, Jr. (‘76) and J. Devon Lowdon (‘76) passed away on January 11, 2012. Jim was Director of Student Services at Roanoke College in the early 1970s, and for a while, was Ben Huddle’s boss (Long Story!)

Megan Via McDonald (‘05) is a Physician’s Assistant working at Gastroenterology Consultants in Roanoke. She and her husband, Brady, are the parents of Reese (not quite one) and live in the Burnt Chimney area of Franklin County, Virginia.

Timothy Overstreet (‘93) is the new Principal of Staunton River Middle School in Bedford County after teaching chemistry at Liberty High School in Lynchburg and serving as Assistant Principal. His wife, Heather, teaches math at Staunton River High School. They have two children, an eleven year old son, Quinn, and an eight year old daughter, Claire. There is a nice article on Tim in the Smith Mountain Eagle, October 11, 2011.

Marianne Smith (‘83) is currently an Assistant Professor of Psychiatry at the University of Massachusetts Medical School. She received her M.D. from the Medical College of Virginia in 1988.

Ina Goad Steele (‘42) passed away on July 7, 2011 in Roanoke. She was the first female chemist hired by the State of Virginia. Her dentist husband, Dr. Richard Steele (‘42) passed away in 1975. They had three sons who attended Roanoke College.

Amanda (Mandy) Strutner (‘07) and John (Josh) Morris (‘07) were married in May at College Lutheran Church in Salem. Mandy is finishing a pharmacy program at East Tennessee State University

Becca Winship (‘07) is still in New Mexico, and planning to enter nursing school in Philadelphia next year.

Joseph Stephens (‘03) continues to work as a Forensic Document Examiner for the United States Secret Service in Washington, DC. USSS supervises unpaid summer internships for students. If you are interested, contact Joe at: joseph.stephens@ussss.dhs.
Alumni Weekend

Join us for Alumni Weekend, April 13th - 15th, 2012. A number of events are taking place, including:

- Campus Tours, Admissions, Friday 2:00 - 4:00 pm
- “Last Gasp” by Ben Huddle, Massengill, Friday 4:00 - 5:00 pm
- Chemistry Department Reception and Tour of Trexler Hall, Friday 5:00 pm
- FOTQ, Friday 4:30 - 6:30 pm ($9.00)
- Canoe Trip, Saturday 8:00 am
- Appalachian Trail Hike to McAfee Knob, Saturday 8:00 am
- Bloodies and Bagels, Commons, Saturday 10:00 am - 12:00 noon
- Picnic on the Quad, Saturday 12:00 noon - 2:00 pm ($9.00)
- Heritage Ball, Ballroom, Saturday 9:00 pm - 12:00 midnight

And more… See https://webapps.roanoke.edu/weekend/

Skip Brenzovich, Gary Hollis, Dr. Alfred French, Kelly Anderson and Ben Huddle at the Fall, 2011 Fisher Lecture.

2011 Fisher Lecture

This year’s Fisher Lecture was presented on November 7, 2011. The speaker was Dr. Alfred D. French, Research Chemist from the Southern Regional Research Laboratory in New Orleans. Dr. French is a physical chemist who studies cotton. The title of his talk was “Understanding Cotton with Computational Chemistry and Crystallography”. Dr. Hap Fisher was the Director of this laboratory for 22 years before coming to Roanoke College. Under his direction many advances were made in the properties of cotton products. Dr. French remembered Hap from his days in New Orleans, and related some stories about Hap.

Dr. Albert French was the featured speaker at the Fall, 2011 Fisher Lecture.
Charles H. “Hap” Fisher
1906 — 2011

Hap Fisher was one of the most distinguished graduates of Roanoke College, ever. He was born in Hiawatha, West Virginia on November 20, 1906, and moved to Salem, Virginia with his parents as an infant. He grew up in Salem, graduating from Salem High School, where he played football and basketball, ran track and was editor of the annual. He attended Roanoke College, majoring in Chemistry, and graduated in 1928. He played banjo in a dance band, and worked nights at the post office to earn money for college.

After Roanoke, Hap went to the University of Illinois, earning a Masters in 1929 and a Ph.D. in 1932, working as the first student with R. C. Fuson, who would later become one of the best known chemists in the world. After Illinois, Hap taught and did research at Harvard University for three years, before moving to the U.S. Bureau of Mines in Pittsburgh for five years. He was one of the team of chemists investigating the conversion of coal to liquid hydrocarbons.

For the rest of career, Hap worked for the U.S. Department of Agriculture, for ten years in Philadelphia, and for 22 years as the Director of the Southern Regional Research Lab in New Orleans. His group was responsible for developing a way to treat cotton to make it less susceptible to wrinkling and to make it less flammable, a way to convert southern agricultural products into useful commercial materials, a way to freeze orange juice, and a way to convert vegetable oils into plasticizers for polymers, among many other activities. His work led to more than 200 publications and more than 70 patents.

Hap has received many honors, including the Southern Chemist Award, the Herty Medal, an honorary doctorate from Tulane University, an honorary doctorate from Roanoke College, and many other awards. He was a former President of the American Institute of Chemists, and a long-time member of the Board of American Chemical Society. The annual Fisher Lecture is named in his honor, and the organic chemistry lab was designated the Charles H. Fisher Organic Chemistry Laboratory.

When Hap “retired” from the SRRL in 1972, he returned to Roanoke College as an Adjunct Research Professor, where he was provided with an office but no salary. He continued to do research, to publish, and to travel, until his final retirement in 2006 at the age of 100. He died on May 13, 2011, and is buried in Salem. He is survived by his wife Elizabeth “Betty” Snyder Kiser Fisher, class of 1946.

The 2011 Fisher Lecture was presented by Dr. Al French of the SRRL in New Orleans on November 7th; his topic was “The Chemistry of Cotton.” On November 18th, Dr. Jimmy Mays of The University of Tennessee talked about his research on “Super-Elastomers.” We think Hap would have been pleased with these remembrances.
Roanoke College was one of 18 undergraduate colleges chosen to participate in the Department of Energy’s “Joint Genome Institute.” This program makes available sequenced bacterial genomes for analysis by students at the chosen colleges. For example, our students might elucidate fundamental metabolic pathways. Our initial efforts will be in Biochem II labs. Cathy Sarisky is the Principal Investigator from Roanoke College.

Betrand Eardly (Penn State University, Berks), Betsy Wilson (University of North Carolina, Asheville), Cheryl Kerfeld (DOE JGI), David Roll (Roberts Wesleyan College), Jason Friday (North Iowa Area Community College), Michael LaGier (Florida Gulf Coast University), Lisa Lindert (Cal Poly San Luis Obispo), Ward Jones (Viterbo University), Scott Gabriel (Viterbo University), Alex Dekhtyar (Cal Poly San Luis Obispo), Joanna Klein (Northwestern College), Daniel Golemboski (Bellarmine University), Kari Loomis (Mars Hill College), Christopher Kvaal (St. Cloud State University), Catherine Sarisky (Roanoke College), Michael Sierk (Saint Vincent College), Sharon Lewis (Langston University), Kenneth Noll (University of Connecticut), Seth Axen (DOE JGI), Cheryl Bailey (University of Nebraska, Lincoln).

http://www.jgi.doe.gov/education/genomeannotation.html

http://roanoke.edu/News_and_Events/Campus_News/DOE_Joint_Genome_Institute.htm

Facebook

Find us on Facebook: Roanoke College Chemistry and Biochemistry.
Summer 2011 Research

Maddie Aliff (with Dr. Cathy Sarisky)
Study of PurP in Thermococcus Kodakarensis

Sara Blankenship (with Dr. Tim Johann)
Plasmodium Falciparum Plasmsepin Phage Display Library

Chase Board (with Dr. Vern Miller)
Separation of Bisamine Boron Cations using Chromatography

Colin Briggs (with Dr. Stephanie Livingston)
Absorption and Release of Dyes on Mesoporous Silica Spheres

Rachal Crum (with Dr. Kelly Anderson)
Evaluation of Sulfuric Acid and Water Computational Models

Alex Hawes (with Dr. Gary Hollis)
Synthesis of Perfluorinated Ethers and Alcohols

Caroline Hunter (with Dr. Cathy Sarisky)
Gene Cloning in Purine Biosynthesis in Archaeoglobus Fulgidus

Jeremy Johnson (with Dr. Vern Miller)
Bisamine Boron Cations from 1,4-Dimethylpiperazine

Kayla Muncy (with Dr. Tim Johann)
Cloning Malarial Plasmepsins

Rachel Keck (with Dr. Stephanie Livingston)
Photocatalytic Sb2S3 used for Dye Degradation

Jonathan Perkins (with Dr. Gary Hollis)
Synthesis of Perfluorinated Ethers and Fluoroethers

Nick Plymale (with Dr. Cathy Sarisky)
Purine Biosynthesis in Thermococcus Kodakarensis

Meagan Tolley (with Dr. Cathy Sarisky)
Purine Biosynthesis in Sulfolobus Solfataricus

Selena Watkins (with Dr. Kelly Anderson)
Simulating Short Ethers near a Solid Metal (Au) Surface

Casey Wojtera (with Dr. Tim Johann)
Investigating an Active Site in Mycoplasma Pneumoniae

Please stay in touch! Send us your news, memories, photos, etc. We greatly enjoy hearing from you!

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