



Periodic Times

Wittenberg University Department of Chemistry

2012-13 Highlights:

- Senior chem major Alaina Engdahl wins Best Poster Awards at local ACS meeting (for the 2nd year in a row)
- Professor Hanson completes new book edition.
- Seven students present posters at national conferences
- Kay Reed retires after 21 years at Witt.
- Ginny Harkins is hired as new dept. assistant
- Research student Sloan Galbraith competes in karate at the Pan American games in Colombia.

Inside this issue:

Summer Research	2
Alumni Notes	2
Awards	3
Gifts	4
Faculty & Staff Notes	4
2013 Graduates	6

Volume VII

Summer 2013

Department Bids Bon Voyage to Kay Reed

Kay Reed retired after 21 years as the department assistant to Chemistry and Physics. Her last official day at the office was June 27, though she returned for a few days in July to help train our new assistant. Students honored Kay at the department awards ceremony in April, presenting her with a scrapbook of photos and many heartfelt notes from students, faculty, staff and alumni. The department held a dinner celebration at the Simon Kenton Inn in June, with Nelson and Mary Lou Sartoris joining us for the occasion. We will miss Kay's friendly greeting in the office and her excellent handling of department tasks. Kay looks forward to spending more time with her grandson, home projects, and of course more cruises to the Bahamas.



Ginny Harkins has been hired as our new assistant; Ginny has worked many years at Wittenberg, most recently for the Math & Computer Science Department and the Honors Program.

Computational Chemistry Lab Renovation and Upgrade

With funding from alumni and friends, the department accomplished a long-needed refurbishing of the computational chemistry lab. New carpet, paint and chairs were completed in October of 2012. Physical Plant staff also fabricated wood trim for the counters. We are grateful for the financial support of our donors who made this possible! In May 2013, the University also replaced the computers with new all-in-one Windows 7 machines, in time to be used by the computational research students this summer.



Summer 2013 Research



Top, l to r: Kevin Bond, Adam Kapuscinski, Sarah Lawson, Colleen Bond, Sloane Galbraith; Bottom: Ben Hagen, Boeing Smith, Garrhett Via, Iris Qiu, Chi Nguyen.

Name (class year)	Hometown	Major	Summer Project
Colleen Bond ('16)	Bexley, OH	Chemistry	Improvement in Physical Chemistry Laboratory Procedures
Kevin Bond ('14)	Bexley, OH	Chemistry	Absorption and Fluorescence Spectroscopy of Iodine and Bromine
Ben Hagen ('14)	Brecksville, OH	Chemistry	Diazonium Modified Copper Wires for Solid Phase Micro-extraction (SPME) Fibers
Sloan Galbraith ('15)	Cincinnati, OH	Sport Management	Detecting Prehistorical Human Remains in Soil through Phosphate Analysis
Adam Kapuscinski ('15)	Cincinnati, OH	BMB	Solvent Effects on Reaction Rates of Substituted Phenols with Acetic Anhydride
Sarah Lawson ('14)	Columbus, OH	Psychology	Effect of Solvation with PCM on the Activation Energies of Acetylation of m-Methylphenolate
Chi Nguyen ('16)	Hanoi, Vietnam	BMB	Free Energy Change for Glucose Binding to Glucose/Galactose Binding Protein using Umbrella Sampling
Xiazi (Iris) Qiu ('15)	Shanghai, China	Chemistry	Uncatalyzed Knoevenagel Condensation in Water at Room Temperature
Boeing Smith ('16)	Gallipolis, OH	Undeclared	Enhancing Raman Spectroscopy by the Use of Silver Colloids
Garrhett Via ('15)	Geneva, OH	Chemistry	One-Step Solvent-free Synthesis and Grafting of Aryl Groups to Glassy Carbon Electrodes



Ruth Skillings, department secretary from 1975-1985 passed away on July 1, 2013. She had been living in Richmond, IN. Professor Emeritus Nelson Sartoris writes, "She was a lovely, sensitive, caring and exceptionally competent person. She was one of humanity's finest individuals."

Alumni Notes

Neil Anderson ('10) very excitedly accepted a quality control position at Amresco in October, 2012. He served on our alumni panel last fall.

David To ('11) served on our alumni panel, and is a student at the Boonshoft School of Medicine at Wright State University.

Jerilyn (Vrabel) Schmidt ('05) served on our alumni panel last October and is working as a chemist.

Isaac Boye-Arthur ('06) is a Formulation Chemist II with Quest Diagnostics in California. He is also working towards his second master's degree at San Jose.

Michelle Graham (BMB '11) was accepted to the University of North Texas graduate school.

Mark Juhasz ('00) visited the Chemistry Department with his family in June, 2013. He is currently a Visiting Professor at Whitman College in Walla Walla, WA.

Martha Minich ('73) received a Technical Achievement in Organic Chemistry Award from the Organic Division of the ACS in 2011. After 26 years as a chemist with Pfizer, she retired in 2011. Her career as a professional chemist spanned 35 years.

Andy Palmer ('03) became a Research and Development Project Manager with Polysource, Inc. in Piqua, OH in October, 2012. Polysource, Inc. manufactures expandable polystyrene.

Hope Parker (BMB '11) was awarded a \$7,000.00 Forensic Science Student Research Grant from the Forensic Science Foundation/National Institute of Justice in October, 2012, during her second year as a graduate student at Virginia Commonwealth University. Her proposal title was "Development of a Scorpion-based multiplex qPCR assay for prescreening mixture detection".

Jessi Pizzuli ('02) visited the Chemistry Department in October, 2012, and is a practicing veterinarian.

Tabitha (Tabi) Thompson ('06) recently began working as a Research Technician in the rigid polyurethanes spray foam group at Air Products and Chemicals in Allentown, PA.

Molly Tingley (BMB '10) visited the department, and is working for the Red Cross.

Rachel Saylor ('10) visited the department. She is a graduate student at the University of Kansas, and recently presented at the National ACS meeting in Indianapolis after her poster was selected as a winner of a contest celebrating the 75th anniversary of the ACS Division of Analytical Chemistry.

Kaitlyn Tinney (BMB '10) completed her program at Nova Southeastern in May, 2013 and is now an Anesthesiology Assistant in Atlanta, GA.

Matt Schalnatt ('99) visited campus with his family. He is a Capacitor R&D Engineer at General Atomics-Electronic Systems, Inc. in San Diego.

Katie McNeal (BMB '12) played flute with the 3Penny Chorus and Orchestra on the live rounds of America's Got Talent in August 2013. She is completing an M.Div. from Yale Divinity School this year.

The department also enjoyed visits this past year from Silas Burdick ('04), Lori Azzara Stiver ('95), Darren Smith ('06), and Craig Westphal ('99).

To include your
updates in the next
department
newsletter please
send to

vharkins@wittenberg.edu



Above: Tom Mori and Jonny Price discuss their poster with James Barnes ('99) at Pittcon.

Below: Colleen Bond ('16) working on a colorful summer research project.



To ensure receipt of
future newsletters,
please send changes in
e-mail addresses to
vharkins@wittenberg.edu
Hard copies of the
newsletter are
available upon
request.

Chemistry and BMB Majors Receive Department and University Awards

Sartoris Award for the Outstanding Senior Chemistry Major: Alaina Engdahl

Outstanding Senior BMB Major: Heepke Wendroth

Patterson Award for Outstanding Junior: Andrew Franjesevic

James T. Gregory Award: Brianna Watson

Organic Award: Garrhett Via

General Chemistry Award: Colleen Bond, Allison Dunn

To contribute to the chemistry department and/or Wittenberg's Annual Fund, send donations to:

The Wittenberg Fund
Wittenberg University,
PO Box 720
Springfield, OH 45504

or go to:
www.wittenberg.edu
and select Making a Gift
(under the Alumni & Parents heading).

Your gifts to the department help support our mission especially undergraduate research and travel, instrumentation and technology needs.

Thanks to these recent chemistry department contributors

The department received generous gifts the past year from the following:

Franta Fund: Mrs. Virginia Franta

Sartoris Fund:

Mr & Mrs. Adam Davis, Drs. Cynthia & Paul Loeffler, Dr. William Bunnelle & Ms. Leslie Evans, Abbott Laboratories

Chemistry Department Gift Account:

Dr. & Mrs. Lynn Carlton
Dr. and Mrs. Vincent Jo Davisson
Ms. Alaina Engdahl
Dr. Jessica Hoane
Dr. Sung-Ho Hong
Mr. Robert Hrebek
Ms. Lydia Kisley
Mr. Stephen Klingner

Dr. and Mrs. Robert Kohut
Dr. Marissa Matarrese
Dr. Tracey N. Murray
Mrs. Despina Paulson
Dr. Tyler Stepsis
Dr. Kimberly Walker & Mr. Paul Banta
Ms. Brianna Watson

We also express our appreciation to all of our alumni and friends who have contributed to Wittenberg University.

Faculty & Staff Notes



Amil Anderson has continued to teach general chemistry and biochemistry this past year. A first-year student worked with Amil this summer to extend his research project on the energetics of sugars binding to proteins using molecular dynamics simulations. At the end of July, Amil and his student traveled to the MERCURY Undergraduate Computational Chemistry conference at Bucknell University, where the student presented her results. He followed this up with a week long vacation in Sedona, AZ. He continues to oversee Wittenberg's scientific computing cluster and chairs the Academic Computing Committee this year. Amil made a trip to Minnesota last fall with his daughter Amelia (12th grade) and his son Aidan (10th grade) to check out colleges. In his spare time, Amil continues his study of the classical guitar and attends the occasional soccer game and school concert played by his children.



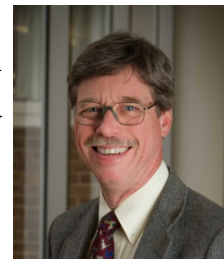
Kristin Cline completed her 20th year of teaching at Wittenberg. She continues to work with research students to find new ways to modify electrodes using diazonium salts. In March she traveled with two students to Pittcon in Philadelphia, where they presented a poster and visited with three former students. She taught general chemistry last fall for the first time in 8 years. Over the past year, she enjoyed playing flute with Triple Bond trio, with the Wittenberg Choir, for a former student's wedding and especially for her sister's wedding. She enjoys watching her daughters Rachael (age 7) in ballet recitals and Merrill (age 13) in track meets, sailing regattas, and choir & band concerts.



Ray Dudek taught a WittSem for the first time last fall. The interdisciplinary, freshmen seminar was themed around performing the forensic tests that are depicted in murder mystery novels. The class of 16 students had a chance to lift fingerprints, cast shoeprints, measure bullets, and analyze splatter patterns. In addition to the WittSem, Ray's Thermodynamics & Kinetics class had a record-high enrollment for him. The spring featured a smaller Quantum Chemistry class and a section of General Chemistry. Over the summer, three research students worked on a variety of projects, with one student synthesizing quantum dots that were analyzed using absorption and fluorescence measurements. He continues to do trivia at Founders, and took trips to Mexico, the Pacific North-

west, and back to New England.

Dave Finster taught general chemistry courses and a WittSem (on Global Climate Change) in 2012-13. (What? No inorganic chemistry?? Fear not; that is now taught on an alternate year basis.) He attended the Fall ACS meeting in Philadelphia where he presented two papers in the Division of Chemical Health and Safety. He was also in New Orleans for the Spring ACS meeting. At both meetings he participated in Committee on Chemical Safety activities and now chairs a subcommittee with that group. Dave continues to serve on the Board of Editors for the Journal of Chemical Health and Safety and to volunteer with Miami Township Fire-Rescue and at the high school in Yellow Springs. In the summer he taught ESCI 100 on Global Climate Change in the new Environmental Science program at Wittenberg and also attended a conference at Augsburg College on "Vocation: A Challenge to the Commodification of Education."



Pete Hanson had another very good and very busy year in 2012-13 and is now on sabbatical. He worked closely with Iris Qiu and Sloan Galbraith in the lab this past summer. The initial results of Sloan's research will be published by the 2013 Midwest Archaeological Conference and presented in Columbus under the title *Testing Phosphate Levels within Late Prehistoric Features: Preliminary Results*. The research has determined a correlation between features of a prehistoric archaeological site and their uses. He served as chair of the Educational Policies Committee during a turbulent year. This year, he set up three beehives.



Ginny Harkins assumed the position of Department Assistant for the Chemistry and Physics Departments and the BMB Program on July 1. She has worked at Wittenberg for a number of years, most recently as Administrative Assistant for the Math and Computer Science Department and the Honors Program. Ginny and her husband, Scott, are life-long residents of Springfield. Their three children, Corey, Chad and Meghan and their families, also live in Springfield. She spent her summer beginning her work with us, tending her vegetable and flower gardens, reading, biking and, most importantly, spending time with her family. They recently welcomed a new grandson, Hunter. She looks forward to receiving your updates!



Justin Houseknecht returned to the classroom in 2012-13 after sabbatical the previous year. Not only did he enjoy working with students again, but he was also able to serve on the Teacher Effectiveness Committee. Two manuscripts are in preparation due to the efforts of several great research students. Justin is on the leadership board of a new community of organic chemists looking to promote innovation in the teaching and learning of organic chemistry around the country. Despite all this excitement he was able to train just enough to win the Wittenberg Triathlon. Valerie and the kids continue to do well with work, school, basketball, soccer, softball, Tae Kwon Do, piano lessons, and miscellaneous other activities to prevent any dust from settling in the household.



Richard York worked with Tom Mori ('13) over the summer to develop the front end of the chemical inventory software for the department. Richard made improvements to several general chemistry experiments, including adapting our photometric kinetics experiment to use the new SpectroVis spectrometers and improving the old standby copper sulfate pentahydrate synthesis. Copper chemistry continues to be quite interesting. In September 2012 he presented a clarinet recital featuring woodwind music from France. The Triple Bond trio opened the program with works of Devienne and Ibert.





Department of Chemistry
PO Box 720
Springfield, OH 45501

Phone: 937.327.6435
E-mail: vharkins@wittenberg.edu

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2013 Chemistry Graduates

Alaina Engdahl is attending the University of Michigan to pursue a PhD in medicinal chemistry.

Thomas Mori is employed as a chemical analyst for Galbraith Labs in Knoxville, Tennessee.

Jonathan Price was accepted to The Ohio State University College of Dentistry.

Elyssa Silva is attending the urban teaching program at the School of Education and Human Development at the University of Colorado Denver.

Kevin To is spending a year in Japan as a participant in the Japan Exchange and Teaching Program.

Brianna Watson is pursuing a PhD in Chemistry at the University of Tennessee.

Anya Weaver was accepted to University of New England College of Osteopathic Medicine in Maine, and will begin studies next year. She is working at Cargill in the quality department, volunteering at the free clinic in Troy, OH and planning some medical missions trips.



Chemistry majors, left to right: Jonny Price, Alaina Engdahl, Kevin To, Tom Mori, Brianna Watson, Anya Weaver, Elyssa Silva



BMB majors, bottom row: Heepke Wendroth, Beth Dorsey, Lilli Fishman, Rachael Nuzzo. Middle: Ryan Davis, Stephen Klingner, Andrew Muir. Top: Patrick Westmoreland, Terry Slone.

2013 Biochemistry/Molecular Biology Graduates

Ryan Davis is entering a Masters Program in Biomedical Sciences with an emphasis in Biochemistry and Molecular Biology at Wake Forest.

Elizabeth Dorsey is searching for employment.

Emily (Lilli) Fishman is pursuing graduate studies in Biology at the University of Toledo.

Andrew Muir is studying veterinary medicine at The Ohio State University.

Terry Slone has created a software development company, and plans to apply to PhD programs in molecular nanotechnology.

Heepke Wendroth is attending medical school at the University of Kentucky.

Patrick Westmoreland is in the graduate program in molecular, cellular, and developmental biology at The Ohio State University.

Rachael Nuzzo and **Stephen Klingner** have not communicated their plans to us yet.

