



# Periodic Times

Wittenberg University Department of Chemistry

## 2011-12 Highlights:

- Department receives NIOSH Collegiate Award from ACS
- Wittenberg Medal of Honor presented to Virginia Franta ('36)
- Chemistry Club receives Commendable Chapter Award from ACS
- Chem major Alaina Engdahl wins Best Poster Awards at local ACS meeting
- Lydia Kisley ('10) and Valerie O'Brien ('10) win NSF fellowships
- Wittenberg adds major in Environmental Science

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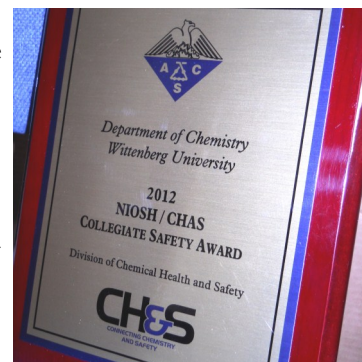
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## Volume VI

Summer 2012

### Department Receives Collegiate Safety Award from ACS

The 2012 Collegiate Safety Award was presented to the Wittenberg Department of Chemistry at the National Meeting of the American Chemical Society. This NIOSH/CHAS\* award was given in recognition of our safety-across-the curriculum program, a program based on the textbook *Laboratory Safety for Chemistry Students*, co-authored by Dave Finster. Dave attended the award ceremony in August at the National ACS meeting in Philadelphia. In the 13-year history of the award, Wittenberg is only the third liberal arts college to have received it.



Safety Award Plaque

\*NIOSH = National Institute for Occupational Safety and Health; CHAS =ACS Division of Chemical Health and Safety

### New Lab Equipment Purchased with Gift Money and Grant

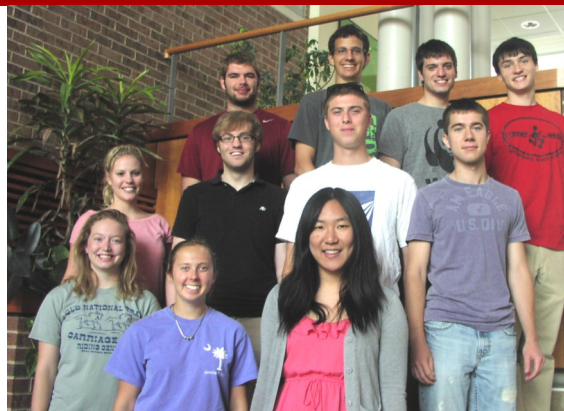


Thanks to the generosity of friends and alumni, and aided by a grant, the chemistry department was able to purchase new equipment for use in our teaching labs. In January we acquired 18 new laptop computers to replace ones from 2002 for use primarily in general chemistry, but also in a number of upper level courses. Ray Dudek wrote a successful proposal for a Pittsburgh Conference Memorial National College Grant for the purchase of Vernier spectrometers and fiber optic probes. This proposal was one of only 13 funded out of about 60 proposals. These spectrometers interface to the laptops and allow for absorbance and fluorescence measurements in the visible region of the spectrum.

**Did you know?** The Wittenberg Department of Chemistry has been certified by the American Chemical Society for over 50 years. We unknowingly passed our 50th anniversary of ACS certification in September 2011!

## Summer 2012 Research

The chemistry summer research program at Wittenberg is firmly entrenched thanks to excellent endowment funds (Franta, Glasoe and Hove) provided by wonderful donors. We were able to support 11 students this summer. Xiazi (Iris) Qiu (class of '15, chemistry major from Shanghai, China) and Terry Slone ('13, BMB, South Charleston, OH) worked with Dr. Anderson on computational studies of glucose-galactose binding protein. Kevin Bond ('14, Chemistry, Columbus, OH) and Andrew Franjesevik ('14, Chemistry, Uniontown, OH) pursued computational projects under Dr. Houseknecht. Adam Kapuscinski ('15, Cincinnati, OH) did silver colloid synthesis and Raman spectroscopy and Garrhett Via ('15, Chemistry, Geneva, OH) worked on experiments using the new spectrovis spectrometer with Dr. Dudek. Brianna Watson ('13, Chemistry, Dayton, OH) and Tom Mori ('13, Chemistry, Weston, MA) worked on GC-MS projects and Jonny Price ('14, Chemistry & Biology, Dublin, OH) synthesized a variety of diazonium ions for the modification of carbon electrodes, working with Dr. Cline. Nicole Perry ('14, Chemistry & Biology, Mason, OH) and Jessica Coggins ('14, BMB, Geneva, OH) worked with Pete Hanson on green chemistry synthesis.



Above: Research students left to right. Top row: Andrew Franjesevik, Jonny Price, Tom Mori, Adam Kapuscinski. Middle: Nicole Perry, Terry Slone, Kevin Bond, Garrhett Via. Bottom: Brianna Watson, Jessica Coggins, Xiazi (Iris) Qiu.

## Alumni Notes

Virginia Ellis Franta ('36) was presented with the Wittenberg Medal of Honor during the Commencement ceremony in May 2012. In the award citation, Kristin Cline described the impact of the Franta fund, established in 1997. "Because of your generosity, the number of chemistry research students at Wittenberg has increased significantly in the past decade, now averaging more than 10 students each summer. These summer research opportunities open up many doors for our students and enhance their success at job and graduate school applications... You have given generously out of a fondness for Wittenberg, your love of chemistry and your desire to improve the education of young people. Your legacy will impact the lives of generations of students to come and their ability to impact the world."

Andy Palmer ('03) helped to set up an internship for Ashley Zkiab ('12) at Applied Sciences, Inc., in Cedarville, Ohio where Andy is a research chemist.

James Barnes ('99) is working for a company in Oklahoma that does contract work for the government, specifically defense intelligence.

Nicholas Christoforou ('99) received his PhD from Johns Hopkins in 2005, did a post-doc there, and then became a research associate at Duke University. He recently moved to the United Arab Emirates to become an Assistant Professor at a start-up university, Khalifa University of Science, Technology and Research.

Jeff Domingus (BMB '04) recently opened a family medical practice with another physician in North Carolina. Jeff received his medical degree from Ohio University and did his residency at Grandview Medical Center in Grandview, Ohio.

Curtis Frank ('66) retired from chemical education after 43 years of teaching high school and college chemistry, including 12 years at Geneva College in Beaver Falls, PA and 1 year at Thiel College in Greenville, PA. He fondly remembers Wittenberg professor Paul Glasoe as his inspiration to be the best possible teacher for his students. Both Curtis and his daughter Susan took classes from Witt professor Howard Curry. Curtis enjoys cheering for his alma mater when the Witt football and basketball teams play near his home at Allegheny College.

Fiorella Ghisays (BMB '05) received her Ph.D. this year from Washington University at St. Louis.

Miranda Hayman ('04) completed her Ph.D. from the University of Southern California in 2011. She started a new job in August 2011 as a full-time faculty member at Crossroads School, a private high school in Santa

Monica, CA. She and fellow USC grad Darryl Guenther were married in March on a boat in Marina Del Rey harbor.

Jessica Hoane ('94) became a Diplomate of the American College of Veterinary Pathologists in 2008 after completing veterinary school at Michigan State, grad school at University of Kentucky and a residency at Michigan State. She married Anthony Holman in 2009. Their daughter, Willow, was born in October 2010. Jessica accepted a job with Charles River Laboratories Pathology Associates in North Carolina in 2011.

Amanda Johnson ('02) and her husband welcomed their first child, Landon, in April 2011.

Lydia Kisley ('10) received an NSF graduate fellowship and recently passed her qualifying exam at Rice University.

Brian Mann (BMB '10) is enjoying graduate school at the University of Texas Medical Branch. He is Vice-President of the Graduate Student Organization. He joined Dr. Alan Barrett's lab in the Experimental Pathology department to conduct research on the pathogenesis and molecular epidemiology of West Nile virus.

Carrie Kinnaman Miller ('05) wrote to let us know she received her Ph.D. in physical chemistry from Notre Dame in 2010, did a post-doc at Georgetown, and is beginning as a new assistant professor at Azusa Pacific University this fall.

Lisa Rodenburg ('91) married Paul Michael in May 2011. Lisa is an associate professor in the Department of Environmental Sciences and Center for Environmental Prediction at Rutgers University.

Dr. Charles Saunders ('71) received his Ph.D. in 2011 from The Ohio State University. His dissertation is titled, "Native American Tribal Colleges and Universities: Issues and Problems Impacting Students in the Achievement of Educational Goals." Dr. Saunders is currently Accounting Lead Faculty at Franklin University, and was formerly Internal Audit Project Manager at American Electric Power Company. Dr. Saunders also holds an MBA and an MA, both from The Ohio State University.

Tara Sharif ('10) is a recruiter with Lab Support, a scientific staffing company, in California. She assists scientists and engineers at every level of their career in finding new job opportunities.

Bob Webb ('60) received his MD from Case Western Reserve and has been retired for 5 years from his Internal Medicine/Allergy & Immunology practice in Seattle.

Miriam Eileen Recker White ('53) passed away in April 2011. Miriam received an M.S. in Science Education from Temple University. She married Andrew J. White ('54) in 1953. Miriam taught general science and chemistry for 30 years at Chestnut Hill Academy, a boys' prep school in Philadelphia. She was the first high school teacher elected chair of the Philadelphia Section of the ACS. In 1989, she was granted the prestigious Catalyst Award by the Chemical Manufacturers' Association. After she retired in 1997 she taught in Bratislava, Slovakia and served as an official observer for the Organization for Security and Cooperation during the 1998 Slovak national elections. She was an active church member and volunteer. In 2002 she served as a volunteer at the Evangelical Lutheran Church in American Wittenberg Center in Germany. She is survived by her husband, Jack, four children and five grandchildren.

### Chemistry and BMB Majors Receive Department and University Awards

*Sartoris Award for the Outstanding Senior Chemistry Major:* Xiao Shou

*Outstanding Senior BMB Major:* Melanie Muszelik, Elizabeth Schock

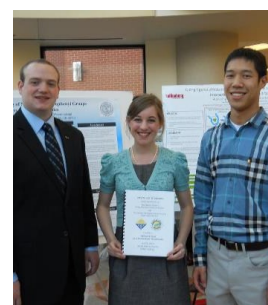
*Patterson Award for Outstanding Junior:* David To

*James T. Gregory Award:* Alaina Engdahl

*Organic Award:* Jonathan Price

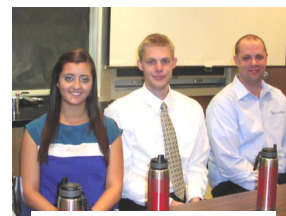
*General Chemistry Award:* Logan Griffith, Garrhett Via

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updates in the next  
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Above: Patrick Westmoreland, Alaina Engdahl and Kevin To at Dayton ACS poster session.

Below: Alumni panel at Homecoming. Tara Sharif ('10), Alan Vorst ('06), Kyle Kissell ('01)



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the Alumni heading).

Be sure to designate  
your donation to the  
chemistry department.

## 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:* Drs. Cynthia & Paul Loeffler

*Chemistry Department Gift Account:*

Dr. & Mrs. Lynn Carlton

Mr. Dennis & Mrs. Suzanne Curran

Dr. and Mrs. Vincent Jo Davisson

Dr. Sung-Ho Hong

Mr. Robert Hrebek

Ms. Lydia Kisley

Mrs. Despina Paulson

Dr. Kimberly Walker & Mr. Paul Banta

Dr. and Mrs. Robert Kohut



Above: Wittenberg Medal of Honor presented by Dr. Cline to Virginia Franta ('36) at commencement. Photo courtesy Matt Cline

## Faculty & Staff Notes

**Amil Anderson** has continued to teach general chemistry and biochemistry this past year. In addition, he taught the BMB primary literature (capstone) course which focused on structural biology. Two students worked 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 students traveled to the MERCURY Undergraduate Computational Chemistry conference at Bucknell University where the students presented their results. He continues to oversee Wittenberg's scientific computing cluster. Amil also taught a summer non-science major's chemistry course. He finished the summer with a trip to Minnesota for his 40th high school reunion. In his spare time, Amil continues his study of the classical guitar and attends the occasional soccer game and school concert played by his daughter, Amelia (11th grade) and son, Aidan (9th grade).

Below: Dave Finster (right) receives ACS Safety Award from Dr. Douglas Walters, chair of the Awards Committee of the Division of Chemical Health and Safety.

**Kristin Cline** mentored three students this summer working on diazonium salt synthesis, electrochemistry and GC-MS projects. She spent a week vacationing in Colorado with her family to celebrate her parents' 50th wedding anniversary. She taught analytical chemistry and instrumental analysis last year, and continued as department chair. Her poster at Pittcon in Orlando in March featured student work on grafting carbon electrodes with substituted nitrophenyl groups. Triple Bond woodwind trio played pre-concert music for "Wittenberg Night" at the Springfield Symphony last fall and recently participated in Richard York's recital on campus.



**Ray Dudek** is teaching a WittSem for the first time this fall; the title is "Getting Away With Murder", and it combines the classic murder mystery with forensic science. Students have been analyzing and practicing the techniques used by Sherlock Holmes and Kay Scarpetta. This fall his Thermodynamics and Kinetics course is the largest he has ever had here. He worked with two freshmen research students, Garrhett Via and Adam Kapuscinski in summer 2012. One continued the work of quantifying a SERS signal on different sized colloids; the other studied three different kinetics and equilibrium systems that may be turned into educational experiments. These labs are being developed with the assistance of new Vernier SpectraVis spectrometers. Ray is grateful to the alumni donations that were used in addition to the PittCon grant to purchase 24 of the instruments. Ray still runs trivia at Founders every other week. Finally, he continues to

travel having gone to India last summer, and Iceland this summer. Maybe Indonesia will be next.

**Dave Finster** taught general chemistry courses, a WittSem (on climate change), and inorganic chemistry in 2011-12. He organized a symposium at the ACS meeting in San Diego on *Improving Safety Education in Academic Institutions* and presented two papers. He was an invited speaker at the regional ACS meeting in St. Louis at a symposium about safety in academia (where he also had dinner with Marinda Wu who was later elected as the President of the ACS). Dave was appointed to the ACS *Committee on Chemical Safety* and continues to serve on the Board of Editors for the *Journal of Chemical Health and Safety*. He published a paper, with several co-authors, on laboratory safety culture in JCHAS. He presented a paper, a poster and a workshop at the BCCE and also performed with *Al D. Hyde and the KeyTones*. His wife, Susan, changed career paths and now works for the *Greene County Council on Aging* and continues her pottery work in Yellow Springs.

**Pete Hanson** has had a very good and very busy year. His Organic II students carried out a research-based laboratory experiment aimed at developing an environmentally-benign (mercury-free) alkyne hydration method. He worked closely with Derek Thompson (BMB '12) Nicole Perry (Chem '14) and Jess Coggins (BMB '14) in the research lab and submitted a manuscript to *Tetrahedron Letters* in August. Pete also edited the second edition of a nonmajors text, *Chemistry In your World*, and gave an invited presentation at the BCCE (*Modified Two-Cycle Approach for Organic Chemistry*). He has continued to serve as chair of the Educational Policies Committee and oversaw the successful adoption of a majors in Accounting and Environmental Science, amongst other accomplishments that could only have been made as a member of a group of colleagues. Off campus, Pete enjoys spending time on his tractor and aims to rehabilitate the landscape of a long-declined home he purchased in 2008. His chickens find this to be a very curious process but seem to approve, based on their daily gifts of fresh eggs.

**Justin Houseknecht** completed writing the first edition of his full-year organic chemistry textbook while on sabbatical leave in 2011-2012. His co-authors at Ohio State are working to complete the project, but he is looking forward to returning his focus to the classroom in 2012-2013. It should surprise no one that sabbatical leave has neither improved his ability to compete in triathlons (4th overall at the Witt Tri this year) nor the upkeep of his home (the grass is still dormant and spotted with weeds). He did, however, enjoy spending more time with his wife and children. Valerie is now working full-time at Wright State, Anna is entering 3rd grade, and Nathan is beginning kindergarten. The family has also grown with the addition of Kiya, a 4 Paws for Ability labradoodle that is a great dog despite not making it through the service dog training program. She is a little suspicious of strangers, but minds well and is a great running partner.

Department Assistant **Kay Reed** officially became a grandmother last October when Thomas Martin Reed was born in Columbus, Ohio. Kay has been eager and willing to help out with babysitting duty, especially over the summer. She was also proud that the chemistry department invited her daughter-in-law Erin (Tommy's mother) to present a seminar entitled, "Science on Trial: An Alternative Career Path in Chemistry" highlighting the connection between Erin's chemistry degree and law degree in her job with the Ohio Bureau of Criminal Investigation. Kay also spent time tutoring at the Literacy Center, singing in her church choir, taking Zumba and ballroom dancing classes, and of course, going on a cruise or two.

**Lary Sanders** enjoys teaching general chemistry again this fall while continuing his woodworking business. He recently judged the Artistry in Wood furniture competition, won first place in the Western Ohio Woodworkers competition, rescued a 1700's grandfather clock that met disaster for a Wittenberg family and created a tiger maple, walnut, and African mahogany hall table. Some of his works can be seen at [www.larysanders.com](http://www.larysanders.com). The little boys that used to explore the laser lab have grown up and are either in college or have graduated. Ann and Lary enjoyed a relaxing time on the bike trails of Pennsylvania and West Virginia which was decidedly different from the speed trials at the Bonneville salt flats last year.

**Richard York**, Erik Werstler ('12) and Anya Weaver ('13) spent a large portion of the summer migrating the chemical inventory to a new system. We now have each bottle bar-coded for tracking. A significant quantity of overstocked items was sorted out for disposal. Richard is preparing an article for submission to the *Journal of Chemical Education* this year and is working on modifying two of our general chemistry experiments to use the new Spectrovis spectrometers. 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.



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## 2012 Chemistry Graduates

**Lindley Bell** accepted a position as an Analyst at Advanced Testing Laboratories in Cincinnati working on-site at Procter and Gamble.

**Kacia Nolan** will be attending The Ohio State University College of Pharmacy.

**Xiao Shou** is pursuing graduate studies in the chemistry department at The Ohio State University.

**Jill Underwood** has accepted full-time employment with Advanced Testing Laboratories in Cincinnati working on-site at Procter and Gamble as a chemist in the analytical oral health care lab.

**Sarah Watson** has accepted a one-year position with the Evangelical Lutheran Church of America's Young Adults in Global Mission program. She will be working at Lea Road Community Church in Wolverhampton, England as the Assistant Director for Community Outreach.

**Erik Werstler** is employed by Sexing Technologies in Marysville, OH operating flow cytometers to produce sex-sorted bovine sperm for the dairy industry.

**Ashley Zkiab** accepted a position as a Lab Technician Chemist with BASF in Elyria, Ohio. She plans to travel to France next summer, and start graduate school next fall.



Left: Chemistry majors, left to right:  
Kacia Nolan, Xiao Shou, Erik Werstler,  
Jill Underwood, Ashley Zkiab, Lindley  
Bell, Sarah Watson

Right: BMB majors and professors, left to right: Nicole George, Maisam Somji, Melanie Muszelik, Dr. Margaret Goodman, Katie McNeal, Betsy Schock, Dr. Amil Anderson, Derek Thompson.



## 2012 Biochemistry/Molecular Biology Graduates

**Nicole George** will be attending medical school.

**Kathryn McNeal** is entering Yale Divinity School

**Melanie Muszelik** will be attending the University of Maryland School of Medicine.

**Elizabeth Schock** begins graduate school at the University of Cincinnati this fall.

**Maisam Somji** is searching for employment.

**Derek Thompson** is pursuing graduate studies in the chemistry program at The Ohio State University.