Greetings from the Chair

Hurray! Fall is here again with another fresh beginning and all the opportunities of 400 plus new students to Westminster. This also brings in 24 new chemistry and biochemistry majors. Demand is high for chemistry as this year will see about 110 students take general chemistry and about 70 students take organic chemistry. The Hoyt science building is bursting at the seams with all classrooms and laboratories occupied nearly every hour of the day. The experience of our senior faculty, Drs. Boylan, Kellner, Smith and myself—along with the energy of our tenure track junior faculty, Drs. Kennedy and Miller—will be put to good use.

Transitioning from last year to this year brings many changes. The department welcomes Dr. Peter Smith back from a full year sabbatical and congratulates Dr. Martha Kellner (Joseph) on her marriage. We thank Dr. Viskari for two good years as a visiting professor and wish him and his family well in their return to Finland. The department congratulates Dr. Sarah Kennedy and Dr. Larry Miller on their promotions to assistant positions and encourages them along the path to tenure and promotion. Sadly, we mourn the loss of Dr. Richard Hendry. Dick was a kind soul with a playful wit who will be missed by many.

The year to come has great promise inside and outside of the classroom. We look forward the return of Alice Hill Brown ’83 as our Distinguished Alumni Speaker on Oct. 8 and Dr. Scott McLuckey ’78 as the Ken and Nancy Long Chemistry Lecturer on Nov. 2. Undergraduate research is already under way with seniors, juniors and sophomores. Freshmen will be invited to join in the spring semester. Presentations will be made at the Pittcon in Atlanta and at the National ACS meeting in Anaheim. We are very thankful for the College and the alumni support of student travel and research. Please remember that as alumni, you are always part of this department and help us achieve these successes.

In closing, I wish to invite you to stop by and visit the department. The rest of the faculty and I enjoy meeting with you, and touring our facilities whether during homecoming weekend or some other day when you come by New Wilmington.

Dr. Timothy Sherwood
Chair, Department of Chemistry
Westminster College

In Memoriam

The department mourns the loss of Professor Richard “Dick” Hendry, Westminster College faculty member from 1959-1998. Dick earned a bachelor of arts degree in chemistry from University of California at Santa Barbara, a master of arts degree in organic chemistry from University of the Pacific, and a doctor of philosophy in biochemistry from Baylor University College of Medicine. He spent one year as a post-doc at the University of Illinois and two years in academia at Texas Tech University before coming to Westminster.

Alumni remember Dr. Hendry as a caring and devoted teacher. He was meticulous about his lab experiments, painstakingly working out all the details himself prior to having the students run the experiments in the teaching lab. Colleagues note Dick’s quick wit, whether he was standing in the laboratory praising the new balances (shoes, not instruments) or glowing about finding a picture of Socks on the Internet (President Clinton’s cat, not the footwear).

Dick was a member of the ACS for 60 years and an active member of Sigma Xi and the Western Pennsylvania Club. A chemical knowledge enthusiast, he was one of the few chemists to have a personal subscription to Chemical Abstracts.

After retirement, Dick maintained an active Internet presence. He kept in touch with friends and family on Facebook and actively blogged on faith issues.

Dick and his colleagues Dewey DeWitt, Ken Long, and Percy Warrick shaped the Department of Chemistry with a combined 145 years of service. Dick’s contributions to chemistry, the sciences, and campus are still felt more than a decade after his retirement.

Dick is survived by his wife, Joanne, two sons, and five grandchildren.
Honors Thesis Work Published

Mallory Strickland '08 and Dr. Helen Boylan, associate professor of chemistry, were published in the July edition of the Journal of Alternative and Complementary Medicine.

The manuscript for "Using Enzyme Folding to Explore the Mechanism of Therapeutic Touch: A Feasibility Study" is based on Strickland’s Honors thesis. The goal of the research was to design a novel model using protein folding to study therapeutic touch, a non-contact form of energy-manipulation healing. The conclusion was that more research is needed to assess the underlying mechanism of therapeutic touch to complement existing studies.

“Mallory came up with the concept for this project entirely on her own,” Boylan said. “It is a novel idea that integrates theories of biochemistry with the practice of alternative medicine known as therapeutic touch. The results of this study neither confirm nor invalidate the benefits of therapeutic touch. Rather, this work develops a model for studying the mechanism of therapeutic touch.”

Strickland, who majored in biochemistry, is a third-year student at Drexel University College of Medicine in Philadelphia.

Seven Majors Involved in Summer Research and Internships

During the summer of 2010, seven of our students took advantage of external research or internship opportunities. Upon returning to Westminster in the fall, the students shared their experiences during our weekly chemistry seminar.

One student, Brandon Kennedy, displayed perfume samples he analyzed at Givuadan, a global leader in perfume and flavor chemistry. Other students talked about their work in various academic labs and industrial labs.

“While the classrooms and labs at Westminster provide excellent training for our students, undergraduates who acquire ‘real-world’ experience through internships and research greatly expand their skill sets and their world view,” Dr. Sarah Kennedy explains. “Those students, who can successfully utilize their chemistry skills in a new setting, are more fully prepared to make decisions about their future careers.”

Nathan Barefoot ’11 performed both computational chemistry and organic synthesis work at Duquesne University in Pittsburgh.

Eric Cargal ’11 studied the antibacterial efficacy of silver nanoparticles and investigated protein adsorption to polymers at the Food and Drug Administration in Silver Spring, Md.

Nate Ferrebee ’13 analyzed metal alloys by various methods, including ICP, in the chemistry laboratory at ISA/Kennametal in New Castle.

Justin Jones ’12 interned with Lord Corporation in Saegertown in the Product Quality Department.

Brandon Kennedy ’12 interned at Givuadan in New York City where he worked in the fragrance chemistry labs.

Ryan Konik ’11 assisted with medical research at the St. Elizabeth Hospital Department of Research in Youngstown, Ohio.

Emily Landis ’11 studied “Carbon-carbon bond formation mediated by CuTc” at Kent State University.

Chemistry Faculty Obtain Environmental Education Grant

Drs. Boylan and Sherwood, together with Dr. Patrick Krantz, director of the Drinko Center for Excellence in Teaching and Learning, have secured funding from the Pennsylvania Department of Environmental Protection Environmental Education Grants Program to develop an outreach program on sustainability. This program, Sustainability in Motion, is a K-16 outreach program modeled after its sister program, Science in Motion. Classroom and laboratory kits are currently being developed based on solar energy technologies. These activity kits, such as building a solar powered toy car and construction of a solar cell, will soon be available to teachers and students in the 53 school districts in western Pennsylvania served by the Science in Motion program. Sustainability in Motion will also serve as a resource for Westminster College students and pre-service teachers, with materials being developed for Inquiry, Intellectual Perspectives, and Education courses. Two chemistry majors with education minors, Zachary Smith ’12 and Nicole George ’13, and one environmental studies minor, Cassandra Treshok ’11, will assist with the program.

A Sustainability in Motion teacher workshop is being planned for late October. This workshop will be held at Westminster’s Field Station, where participants will be able to observe recently installed solar panels in action.

Inside the fragrance lab at Givuadan.

Solar panels being installed at the Field Station during a hands-on workshop in June.

Westminster Chemistry Alumni Homecoming Lunch and Open House

Sat. Oct. 9th • 11:30 a.m. – 1 p.m.
Hoyt Science Center, 3rd Floor
Stop by and talk with the faculty, meet our students, and see our instrumentation.
Faculty and Student Scholarly Activity for Academic Year 2009-10

Presentations at the American Chemical Society (ACS) Annual Meeting. San Francisco, CA. March 20-26, 2010:
Linda Farnham and Peter M. Smith. Morphologies of Lanthanum and Yttrium Oxide Powders via SEM after Precipitation Stripping.
Christina Hamill. Synthesis of (PNP) Hafnium Complexes.
Peter M. Smith. Chair and organizer of Sustainability in Action.

Presentations at the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pitcon). Orlando, FL. February 28-March 5, 2010:
Gavin Buckholtz, Emily Landis, Larry S. Miller, and Peter M. Smith. Using Microwave Heating to Promote the Heck Reaction.
Stephanie Gollos and Pertti Viskari. Analysis of 1,3,7-trimethylxanthine in Different Local Beverages by Quantitative Chromatographic Techniques.
Monica Hall and Sarah Kennedy. Determination of 4-ethylguaiacol and 4-ethylphenol in Northwest Pennsylvania Concord Wines.
Nicholas Mizenko, Ryan Konik and Helen M. Boylan. Analysis and Comparison of Protein Conformational Changes Caused by Microwave and Conventional Heating Methods.

Presentations at the 21st Biennial Conference on Chemical Education. Denton, TX. July 31-August 5, 2010:
Larry Miller. Redesigning classroom space and course content to accommodate a one-semester integrated laboratory/lecture General Chemistry course.
Larry Miller. General Chemistry in a Single Semester: Atoms First as an organizing principle.
Timothy A. Sherwood. Meeting ACS guidelines through two-cycle curriculum.

Other presentations:

Chemistry Awards and Scholarships for Academic Year 2009-2010

DeWitt Scholarship: Christopher Biddle ’11
Dunlop Scholarship: Nathan Barefoot ’11
Louis Skurcenski Scholarship: Brandon Kennedy ’12
Ken Long Book Award: Kimberly Worst ’10
Society of Analytical Chemists of Pittsburgh Award: Monica Hall ’10
Analytical Chemistry Award: Emily Landis ’11
Penn-Ohio Border Section of ACS Award: Ryan Konik ’11
Freeman Award: Casey Schmidt ’12
CRC Award: Jaimie Daum ’13

Chemistry Club Update
By Sarah Kennedy, Assistant Professor of Chemistry

The Chemistry Club has started off the 2010-2011 school year with high energy! This year, we plan to bring in at least four seminar speakers, starting off with Dr. Jeff Evanseck from Duquesne University, who will speak about computational chemistry. Other 2010-2011 events will include the ever-popular liquid nitrogen ice cream socials, pre-school chemistry demonstrations, hosting geek week chemistry night, and various earth week functions. We won honorable mention from the American Chemical Society for our activities last year, so we will be mentioned in the ACS newsletter, InChemistry, and receive an award at the 241st National ACS meeting in Anaheim, CA. We hope to win again this year!

Chemistry Club executive board includes (left to right) Dr. Sarah Kennedy (faculty advisor), Bobby Wehrle (’12, president), Keri Biedka (’11, vice president), Emily Landis (‘11, secretary) and Nicole George (across front, ’13, treasurer).

Distinguished Alumna to Speak

The Westminster College Chemistry Department is pleased to welcome Dr. Alice Brown ’83 as the 2010 Distinguished Alumni Speaker. Her talk, “DNA, the FBI and Life,” will be held at 4 p.m. Friday, Oct. 8, in Phillips Lecture Hall of Hoyt Science Center.

Brown is currently a technical specialist biologist at an FBI Laboratory in Quantico, Va. She earned her bachelor’s degree in biology from Westminster College in 1983, and has worked with the FBI ever since. Brown is a member of the Mid-Atlantic Association of Forensic Scientists. She has received numerous awards for her work, including several FBI Performance Awards. She has had multiple publications featured in The Journal of Forensic Sciences.
McLuckey is Long Lecturer

The Westminster Department of Chemistry will host Dr. Scott A. McLuckey ’87 for the third annual Ken and Nancy Long Chemistry Lecture held at 7 p.m. Tuesday, Nov. 2, in Mueller Theatre of the McKelvey Campus Center.

Dr. McLuckey is the John A. Leighty Distinguished Professor of Analytical Chemistry at Purdue University. He is a 1987 graduate of Westminster College and received his Ph.D. at Purdue University. Dr. McLuckey’s research focuses on the chemistry of gas-phase ions as well as instrumentation for chemical and biological analysis.

In 2007 Dr. McLuckey was honored with the ACS Division of Analytical Chemistry Award in Chemical Instrumentation. The following year he received the ANACHEM Award which is presented annually to an exceptional chemist for progress in the field of analytical chemistry.

Dr. McLuckey’s lecture will focus on the competing viewpoints between science and science policy. He asserts that science education today „is focused on training and education that is highly technical and discipline-related,” which is divergent from the traditional liberal arts view of broad technical and discipline-related knowledge. He believes that science education today “is focused on training and education that is highly technical and discipline-related,” which is divergent from the traditional liberal arts view of broad technical and discipline-related knowledge.

In the future, Dr. McLuckey intends to promote thought and discussion in this audience, exposing them to the educational and professional view of the future „is focused on training and education that is highly technical and discipline-related,” which is divergent from the traditional liberal arts view of broad technical and discipline-related knowledge.

We encourage students to attend the lecture and to participate in the discussion following. The lecture will be recorded and made available for viewing online after the event.

The newsletter is edited by Sarah Welsh ’13 and Helen M. Boylan.

We want to stay in touch! Join the Westminster College Chemistry Alums Facebook group. You can find us by typing the group name in the Facebook search box.

To contact us, please email chemistry@westminster.edu or call (724) 946-7294 (phone) or (724) 946-7158 (fax).