Faculty and Students Have Paper Published

In October 2010 Dr. Lois Zook-Gerdau presented a paper at the Electrochemical Society Meeting that was subsequently accepted for publication. Three undergraduate chemistry majors contributed to the research project and are listed as co-authors on the paper. The students co-authors were Katie Stewart (2010), Seth Barrett (2010), and Erin (Klenk) Molden (2005). Funds for equipment and supplies used for the project were provided by the VPAA’s office, the Science Division, and the Chemistry Department.

The paper was titled, “Effect of Supporting Electrolyte on Mass Transport Through Nafion Films,” and has been reviewed and accepted for publication in ECS Transactions, Las Vegas, Nevada Volume 33, “Physical and Analytical Electrochemistry (General) - 218th ECS Meeting.

“A Multi-Technique Forensic Experiment for a Non-Majors Chemistry Course”

A paper titled “A Multi-Technique Forensic Experiment for a Non-Majors Chemistry Course” co-authored by Dr. Paul Szalay, Dr. Lois Zook-Gerdau, and Dr. Eric J. Schurter has been tentatively approved for publication in the Journal of Chemical Education, pending technical editing by the JCE Production Staff. This work was supported by a National Science Foundation grant (Award ID: 0736538) and Muskingum University.

Chemistry Student Wins Awards

Seth Barrett, senior chemistry major, won second place in the James Bradford Colloquium and Honorable Mention in the Poster Session in April 2011. The Bradford Colloquium is a senior presentation of research held annually during Undergraduate Research and Scholarship Week. The Poster Session is open to all science students.

(Awards funded by the Carolyn and Glenn Hodges Research and Awards Fund.)

Dr. Chris Beekman, a 2002 Muskingum graduate who went on to receive his Ph.D. from The Ohio State University in 2010, will be joining the Chemistry Department as an adjunct lecturer for the 2011-2012 academic year.

Dr. Lois Zook-Gerdau Appointed Visiting Scholar

Dr. Lois-Zook-Gerdau has been appointed as a visiting scholar at the University of Iowa as part of her sabbatical leave during the spring 2011 semester. She has been studying magnetic effects on the kinetics of electron transfer reactions in confined geometries in collaboration with Dr. Johna Leddy at the University of Iowa. Dr. Zook-Gerdau has been able to do most of her sabbatical research at Muskingum University while traveling to Iowa City twice. She is looking forward to continuing this research project while getting back to teaching undergraduate students in the Fall of 2011.
Howard Lowery, 1951

The class of 1951 will be gathering next month for their 60th class reunion under the leadership of Bill Dentzer. Howard is still enjoying a part-time ear, nose and throat practice in Columbus, Ohio. Howard remembers working in the chemistry store-room when in college. He looks forward to visiting the campus in June.

Don Williams, 1960

Don continues to address the largely emotional fear surrounding nuclear power plants in schools and civic clubs, and he is “astonished and dismayed by the general public’s lack of knowledge about much of any science.” Don believes that his science-major classmates and successors will be needed as educators for a long time to come.

Frederick Bonkovsky, 1961

Frederick is a visiting professor of medical ethics at the University of California, San Diego, and at the University of Vienna, Austria, where he taught for over a decade. Previously Dr. Bonkovsky served as chair of the U.S. National Institute of Health Bioethics Department, as University professor, as Department of State International Lecturer, and as National Research Evaluator for the U.S. Department of Energy.

The son of immigrants, Frederick attended public schools and worked on a Cleveland, Ohio, General Motors auto production line. He earned degrees in chemistry and biology summa cum laude at Muskingum, in ethics and biomedicine magna cum laude at Yale University and in Public Policy Ph.D. with honors at Harvard University. Frederick was on the faculties of Harvard and Emory University. As NIH Department chair, he helped establish the research ethics program wherein ethicists are member of all the NIH IRBs. He served, inter alia, on the international Cancer and Mental Health IRBs and led in establishing the NIH clinical ethics programs. He was a research scientist for B F Goodrich and for Standard of Ohio and pastored churches in New England and in Germany.

Elizabeth Leitch (Muskingum, 1962) and Fred have been married for 47 years. Liz was director of U.S. public diplomacy in east Germany until 2005. Their daughter, Rachel, MA, abd, is a senior consultant to the Los Angeles Superintendent of Schools and the mother of Eva, born December, 2010. Their son, Joshua, MD-PH.D., is assistant professor of pediatric neurology at the University of Utah and the father of Daniel, age 6, and of 9-year-old twin sons, Charles Frederick and Samuel.

Fred is the author of five books and scores of articles and has lectured widely in the U.S., in Europe, and Latin America. He has twice been named a Fulbright senior international professor and has held NSF, Danforth, Rockefeller, and other national fellowships. A former semi-professional baseball pitcher, he continues to play violin in chamber groups and orchestras and thinks about playing tennis.

Jon and Jane Schrock, 1961

Jon is still practicing family practice full time in Santa Paula, California. His wife, Jane Montgomery Schrock (‘61), is practicing Clinical Psychology in Santa Paula.

Steven H. Williams, 1965

Steve worked for Owens Corning at their R&D facility in Granville, Ohio for more than 25 years. He retired in 1998 from OC in order to become the Director of Technology for Cleveland Laminating Corp. In 2009 he retired from that position but still works on special projects for them form his home in Granville. Along with his wife, Karen (Gettings, ’67), Steve enjoys their family, travelling, and friends.

Steve Aller, 1967

Steve is Senior Vice President of Coast Southwest, Inc. in Placentia, California. They are a chemical distributor to all western states and have locations in Dallas, Texas, Salt Lake City, Phoenix, Arizona and San Francisco. Their main sales efforts are to personal care companies like Mary Kay, Neutrogena, Paul Mitchell, etc.

Check out their website: http://www.coastsouthwest.com

The company has just celebrated its 25th anniversary. Steve plans on retiring soon.

Steve is retired as a Colonel in the United States Air Force Reserves (one tour of duty in Desert Storm, 1990) and recently inducted into the Hayes High School Athletic Hall of Fame (football) in Delaware, Ohio.

Dennis Berry, 1968

After a career in the chemical industry that included 22 years at ICI Americas, three years at ChemConnect and a number of years consulting, Dennis is now actively and happily retired.

Zane State College, a two year community college in Zanesville, OH, actively seeks masters-prepared professionals to teach as adjunct faculty in its Biology and Anatomy and Physiology classes. This satisfying experience offers an opportunity to build professional credentials while making a real contribution to this community. For more information, please contact Pam Kirst, Coordinator of Adjunct Services: 740-588-1250; pkirst@zanestate.edu
“The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.”

-Sir William Bragg
ALUMNI NEWS AND UPDATES

Andrew Chema, 2003
Andrew is currently working for Summa Physicians, Inc. Family Practice of Medina office. He has been there since August 2010. Andrew graduated residency in June 2010. His wife, Melaine (class of 2006) is entering her 4th year of pharmacy school at NEOUCOM.

Craig Miller, 2008
Craig married Jaime Herron in April 2011.

Mai Dang, 2009
Mai will be attending Nova Southeastern University College of Osteopathic Medicine in Fort Lauderdale, Florida, in the fall of 2011.

Melissa Mull, 2009
Melissa has been accepted to Kent State University’s Masters of Library and Information Science program for the Fall of 2011. She plans to focus on two specialties, Museum Studies and Children and Young Adult Librarian. Melissa is currently employed at WIL Research Laboratories.

Seth Barret, 2010
Seth has accepted graduate student assistantship at the University of North Carolina where he will begin his Ph.D. work in Chemistry in the Fall of 2011.

Troy Gessner, 2010
Troy will be attending the School of Dentistry at The Ohio State University in the Fall of 2011.

Trevor Lutz, 2010
Trevor has gained admission to North Eastern Ohio University College of Medicine (NEOUCOM) for Fall 2011.

CHEMISTRY FACULTY

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<tr>
<th>Faculty</th>
<th>Title(s)</th>
<th>Scholarly Interests</th>
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<tbody>
<tr>
<td>Chris Beekman</td>
<td>Adjunct Lecturer</td>
<td>N/A</td>
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<tr>
<td>Deepa Perera</td>
<td>Associate Professor of Chemistry</td>
<td>Organic Chemistry, Biochemistry, Bioinformatics, Molecular Biology</td>
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<td></td>
<td>Director, Molecular Biology Program</td>
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<td>Pre-Pharmacy Track Advisor</td>
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<td>Pre-Health Track Advisor</td>
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<tr>
<td>Ray Rataiczak</td>
<td>Professor of Chemistry</td>
<td>Physical Chemistry, Materials Science, New Program Development, Regional Technology Initiative</td>
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<td>Science Division Coordinator</td>
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<td>Informatics Department Chair</td>
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<tr>
<td>Eric Schurter</td>
<td>Assistant Professor of Chemistry</td>
<td>Organic Chemistry, Polymer Science, Environmental Chemistry</td>
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<tr>
<td>Paul Szalay</td>
<td>Associate Professor of Chemistry</td>
<td>Inorganic Chemistry, Crystallography, Forensic Chemistry, Science Outreach</td>
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<td>Chemistry Department Chair</td>
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<td>Forensic Chemistry Track Advisor</td>
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<tr>
<td>Lois Zook-Gerdau</td>
<td>Assistant Professor of Chemistry</td>
<td>Analytical Chemistry, Electrochemistry, Environmental Chemistry</td>
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<td>Director, Environmental Science Program</td>
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Chemistry Students Participate in Undergraduate Research and Science Week

Six chemistry students presented their research findings at a Poster Session as a part of the annual Undergraduate Research and Scholarship Week which is held every spring.

Each student presented their research in the form of a poster, and those presentations were then judged on a variety of criteria.

SYNTHESIS AND CHARACTERIZATION OF METAL-ORGANIC FRAMEWORKS FROM AROMATIC CARBOXYLATES
Seth Barrett and Dr. Paul Szalay

FLUORESCENCE STUDIES ON SYNTHESIZED NAPHTHALATED LIGNIN
Joe Castle and Dr. Eric Schurter

DETERMINING THE EFFICIENCY OF OAK WOOD TOASTING METHODS IN THE EXTRACTION OF THE VOLATILE COMPOUND VANILLIN
Ashley Fox, Jayme Workinger, and Joseph Castle

THE EFFECT OF AGING ON THE CHEMICAL COMPOSITION OF RED WINE
Zack Franks, Emily Boothby, and Carrie Liff

THE SYNTHESIS AND COUPLING OF DENDRITES TO THE COMMON PHENYL GROUPS IN LIGNIN POLYMERS
Ryan Loe and Dr. Eric Schurter

EFFICIENCY OF INQUIRY-BASED LEARNING VS. TRADITIONAL METHODS IN THE HIGH SCHOOL CHEMISTRY CLASSROOM
Ryan Sparks, Dr. Ray Rataiczak, and Dr. Linda Rogness

Anderson Lecturer, Ms. Erin Molden
2005 Muskingum Alumna

Erin Molden (Klenk) was this year’s Anderson Lecturer during Undergraduate Research and Scholarship Week in April. Ms. Molden majored in Molecular Biology, Chemistry, and Mathematics while at Muskingum. She is currently earning her M.Ed Licensure for Secondary Education/Chemistry from the University of Cincinnati, Ohio.

Ms. Molden is a Research Assistant III in the lab of Charles Samson, M.D., Division of Gastroenterology, Hepatology, and Nutrition at Cincinnati Children’s Hospital Research Foundation where she does research on disease pathogenesis in a mouse model of pediatric Crohn’s disease.

The title of Erin’s lecture was “Navigating Through the Murky Waters of a Post Muskie World.”

“The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.”

-Sir William Bragg