

Jennifer L. Muzyka

Address

Chemistry Department
Centre College
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(859) 238-5413

Education

1990 University of Texas (Austin, TX)
Ph.D. Organic Chemistry with Marye Anne Fox

1985 University of Dallas (Irving, TX)
B.S. Chemistry (magna cum laude)

Professional Experience

Professor, Centre College (2008-present)
Visiting Scientist, University of Kentucky College of Pharmacy, Chang-Guo Zhan's group (2008)
Associate Professor, Centre College (1998-2008)
Visiting Research Chemist, Appalachia HIDTA Signature Laboratory (2001)
Assistant Professor, Centre College (1994-1998)
Assistant Professor, Roanoke College (1990-94)
Summer Faculty Fellow, University of Kentucky Department of Chemistry, Mark Meier's group (1992)

Honors

2012 Stodghill Research Professorship
2006-08 Centre Scholar
2003 Kirk Award for Excellence in Teaching
2000 Who's Who in Science and Engineering
1999 Who's Who in America
1999 International Who's Who of Professional and Business Women
1998 Who's Who in the World
1998 The World Who's Who of Women
1997 Who's Who in the South and Southwest
1997 Who's Who in American Women
1995 Rookie of the Year Teaching Award from Omicron Delta Kappa at Centre College
1989 University Professional Development Award, University of Texas
1985-86 University Fellow, University of Texas
1985-86 C. M. Share Fellow, University of Texas
1985 NSF graduate fellowship honorable mention
1985 Cardinal Spellman Award, outstanding potential for graduate study
1985 Who's Who in American Colleges and Universities
1985 American Institute of Chemists Outstanding Chemistry grad, U. Dallas
1981-85 Texas Scholars Scholarship, University of Dallas
1983-85 Robert A. Welch Scholarship, University of Dallas
1981-82 Engineers' Club of Dallas Scholarship
1981 John B. O'Hara Science Institute Scholarship

External Grants

- (1) "Diverse Approaches to Active Learning," Co-PI with January Haile and Jason Neiser, Mellon Professional Development Grant from Associated Colleges of the South, \$8,000, 2010.
- (2) "Integration of GC/MS into the Undergraduate Curriculum," Co-PI with Preston Miles and Joe Workman, National Science Foundation, \$46,507.
- (3) "NMR in the Undergraduate Chemistry Curriculum (Conference at Centre College)," Co-PI with Joe Workman and Preston Miles, Mellon Grant from Associated Colleges of the South, \$10,224, Summer 1999.
- (4) "Web-based Tutorial for Improving Visualization in Organic Chemistry," Mellon Technology Fellowship from Associated Colleges of the South, \$2,500, Summer 1999.
- (5) "Improvement of the Undergraduate Chemistry Laboratory Curriculum with High Field NMR," Co-PI with Jose M. Workman and Preston Miles, National Science Foundation, \$61,092, May 1996-April 1998.
- (6) "Cation Radical Cycloaddition Reactions: Electrochemical and Photoelectrochemical Approaches," Kentucky NSF EPSCoR, \$11,400, June 1, 1995 to May 31, 1996.
- (7) "Cation Radical Pericyclic Reactions," Kentucky Academy of Science, \$1,000, June 1995-August 1995.
- (8) "Temperature Effects on Semiconductor Photocatalyzed Reactions," Petroleum Research Fund Grant, \$18,000, September 1992-August 1995.

Internal Grants

- (1) "Structure Based Drug Design: Inhibiting MurA," Centre College Alcock Grant, Summer 2011.
- (2) "Virtual Screening to Discover MurA Inhibitors," Centre College Alcock Grant, Summer 2010.
- (3) "Structure Based Design of MurA Binding Ligands," Centre College Collaborative Research Grant, Summer 2009.
- (4) "Web Based Practice Problems & Rational Drug Design," Centre College Faculty Research Grant, Summer 2008.
- (5) "Web-based Practice Problems for Organic Chemistry," Centre College Collaborative Research Grant, Summer 2007.
- (6) "Reaction Zoo: Web-based Practice Problems for Organic Chemistry," Centre College Collaborative Research Grant, Summer 2006.
- (7) "Synthesis of Fluoroquinolone Antibiotics," Centre College Collaborative Research Grant, Summer 2005.
- (8) "Clickers in Chemistry," ITAC grant, Amy Beilstein and Jennifer Muzyka, 2004.
- (9) "Rational Design of Antibiotics," Centre College Faculty Research Grant, 2003-04.
- (10) "Chemical Education: Preparation of Materials to aid Molecular Visualization," Centre College Faculty Research Grant, \$1899, summer 2002.

- (11) "Statistical Analysis of Organic Components in Marijuana," Centre College Faculty Research Grant, summer 2001.
- (12) "Web-accessible Spectroscopic Unknowns for Organic Chemistry Students," ITAC grant, spring 2001.
- (13) "LC-Mass Spec Experience and Writing papers for *Journal of Chemical Education*," Centre College Faculty Research Grant, \$900, summer 2000.
- (14) "Cycloaddition Reactions of Diene Cation Radicals," Centre College Collaborative Research Summer Grant, \$3,000 (plus \$600 for travel to present results), June - August 1997.
- (15) "Improvement of Science Curriculum with Computer Projection Technology," Knight Grant from Centre College, \$3,600.
- (16) "Theoretical Study of the Diels-Alder Reaction," Teagle Grant from Centre College, \$6,000, 1997-98.
- (17) "Pericyclic Reactions of Cation Radicals," Centre College Collaborative Research Summer Grant, \$4,300, June - August 1995.
- (18) "Cycloadditions of Diene Cation Radicals," Roanoke College Student Summer Scholar Award, room and partial board for two summer research students, June - August 1993.
- (19) "Temperature Effects on Semiconductor Photocatalyzed Diels-Alder Reactions," Roanoke College Starter Grant, \$1,750, May 1 - December 31, 1991.
- (20) "Selectivity in Semiconductor Photocatalysis of Cation Radical Reactions: The Effects of Temperature," Roanoke College Student Summer Scholar Award, room for two summer research students, board for one student, June - August 1991.

Publications

- (1) "Active Site Gating and Substrate Specificity of Butyrylcholinesterase and Acetylcholinesterase: Insights from Molecular Dynamics Simulations," Fang, Lei; Pan, Yongmei; Muzyka, Jennifer; Zhan, Chang-Guo, *J. Phys. Chem. B.*, **2011**, *115*, 8797-8805.
- (2) "Molecular Basis of the Selectivity of the Immunoproteasome Catalytic Subunit LMP2-Specific Inhibitor Revealed by Molecular Modeling and Dynamics Simulations," Beilei Lei, Mohamed Diwan M. AbdulHameed, Adel Hamza, Marie Wehenkel, Jennifer L. Muzyka, Xiao-Jun Yao, Kyung-Bo Kim, and Chang-Guo Zhan, *J. Phys. Chem. B.* **2010**, *114*, 12333-12339.
- (3) "Model of Human Butyrylcholinesterase (BChE) Tetramer by Homology Modeling and Dynamics Simulations," by Yongmei Pan, Jennifer L. Muzyka, and Chang-Guo Zhan, *J. Phys. Chem. B.* **2009**, *113*, 6543-6552.
- (4) "Visualization Tools for Organic Chemistry," by Jennifer L. Muzyka, *J. Chem. Educ.* **2009**, *86*, 254.
- (5) "Making Student Acquired Spectra Available via a Web Browser," by Jennifer L. Muzyka, Ian M. Kaster, Lucas W. Hatcher, *J. Chem. Educ.* **2007**, *84*, 1871-1872.
- (6) "Chemistry Game Shows," by Susan Campbell and Jennifer L. Muzyka, *J. Chem. Educ.* **2002**, *79*, 458.

- (7) *Organic Chemistry (Schaum's Easy Outline)*, by Herbert Meislich, Howard Nechamkin, Jacob Sharefkin. Abridgement edited by Mark S. Meier and Jennifer L. Muzyka, McGraw-Hill, 1999.
- (8) "The Effect of Substituents on the Electrochemistry of Substituted Tetraphenylethylenes," Muzyka, J. L.; Fox, M. A. *J. Org. Chem.* **1991**, *56*, 4549.
- (9) "Oxidative Photocatalysis in the Absence of Oxygen: Methyl Viologen as an Electron Trap in the TiO₂-Mediated Photocatalysis of the Diels-Alder Dimerization of 2,4-Dimethyl-1,3-pentadiene," Muzyka, J. L.; Fox, M. A. *J. Photochem. and Photobiol. A* **1991**, *57*, 27.
- (10) "The Selective Photoelectrochemical Oxidation of Vicinal Dicarboxylic Acids: A Mechanistic Study," Muzyka, J. L.; Fox, M. A. *J. Org. Chem.* **1990**, *55*, 209.
- (11) "Selective Organic Redox Reactions on Irradiated Semiconductor Particles," Fox, M. A.; Ogawa, H.; Muzyka, J. L. *Proc. Electrochem. Soc.* **1988**, *88-14*, 9.
- (12) "A Quasiclassical Trajectory Study of the (H₂ + D₂)⁺ System," Eaker, C. W.; Muzyka, J. L. *Chem. Phys. Lett.* **1985**, *119*, 169.

Professional Presentations

Note: Bold indicates presenter for joint presentations. Undergraduate student names are underlined.

- (1) "Organic Synthesis of Novel Inhibitors of Bacterial Enzyme MurA," **Natalie Orms**, Selina Li, Ben Boone, and Jennifer Muzyka, Kentucky Academy of Science annual meeting, Murray, KY, November 5, 2011.
- (2) "Spectral Zoo and Reaction Zoo: Web-based Applications for Organic Chemistry," Gordon Conference on Chemical Education Research and Practice, Davidson College, June 30, 2011.
- (3) "Virtual Screening of MurA," **Zachary Sweeney** and Jennifer Muzyka, Kentucky Academy of Science annual meeting, Bowling Green, KY, November 13, 2010. (Zack won first place for his presentation.)
- (4) "Organic Chemistry with Just-in-Time Teaching," **Jennifer Muzyka**, Biennial Conference on Chemical Education, Denton, TX, August 4, 2010.
- (5) "Structure Based Design of MurA Binding Ligands," **Louesa Akin**, Anita Allison, Matthew Williams, Jennifer Muzyka, University of Kentucky Chemistry Poster Competition, Lexington, KY, April 16, 2010. (Louesa won honorable mention for her presentation.)
- (6) "Moodle activities and resources in chemistry courses," **Jennifer Muzyka** and Keeta Martin Holmes, ChemEd, Radford, VA, August 3, 2009.
- (7) "Web-based practice problems for organic chemistry," Ian M. Kaster, G. Swope Munday, Monica Foster, Deysi Hernandez, and **Jennifer Muzyka**, Biennial Conference on Chemical Education, Bloomington, IN, July 28, 2008.
- (8) "Building Websites for Learning Organic Chemistry Using Database Programming," **Monica Foster**, Deysi Hernandez, and Jennifer Muzyka, University of Kentucky Chemistry Poster Session, Lexington, KY, April 18, 2008.
- (9) "Building Websites for Learning Organic Chemistry Using Database Programming," **Monica Foster**, Deysi Hernandez, and Jennifer Muzyka, Kentucky Academy of Science Annual Meeting, Louisville, KY, November 9, 2007.

- (10) "Web-Accessible Student Generated Spectra," **Jennifer L. Muzyka**, Ian M. Kaster, Lucas W. Hatcher, Biennial Conference on Chemical Education, West Lafayette, IN, July 31, 2006.
- (11) "Spectroscopic Unknowns for Organic Chemistry Students using Chime and JCAMP," Biennial Conference on Chemical Education, Bellingham, WA, July 30, 2002.
- (12) "Developing Instructional Web Pages with Chemscape Chime," Workshop organizer and leader for the summer 2002 Biennial Conference on Chemical Education.
- (13) "Improving Visualization in Organic Chemistry using Chemscape Chime," Contributed presentation, Kentucky Academy of Science Annual Meeting, Lexington, KY, December 2, 2000.
- (14) "Chemistry 'Jeopardy' 2000: Using an HTML Editor to Create an Easy-to use Interactive Gameboard," Contributed presentation (#523), **Susan Campbell** and Jennifer L. Muzyka, Biennial Conference on Chemical Education, Ann Arbor, MI, August 2, 2000.
- (15) "Web-based Tutorial for Improving Visualization in Organic Chemistry," Contributed presentation (#237), Biennial Conference on Chemical Education, Ann Arbor, MI, August 1, 2000.
- (16) "On-line Molecular Visualization Using Chemscape Chime," Workshop led by **Jennifer L. Muzyka** and **Stephanie Dew**, Associated Colleges of the South, July 2000.
- (17) "Electro-oxidative Initiated [4 + 1] and [2 + 1] Cycloadditions: Dimer Formation from 1,1-Diphenylethylene and 2,3-Dimethyl-1,3-butadiene," **L. Rachael Smith** and Jennifer L. Muzyka, Contributed presentation, National Conference on Undergraduate Research, Salisbury, MD, April 1998.
- (18) "Dimer Formation through Electrochemically Initiated [4 + 2] Cycloaddition of 2,4-Dimethyl-1,3-pentadiene," **John Ballert** and Jennifer L. Muzyka, Contributed presentation, National Conference on Undergraduate Research, Salisbury, MD, April 1998.
- (19) "Electrolysis of Dienes: The Cycloaddition of 2,3-Dimethyl-1,3-butadiene and 1,1-Diphenylethylene," Jennifer L. Muzyka* and **Chad Tippey**, Contributed paper, American Chemical Society Joint Southeast/Southwest Regional Meeting, Memphis, Dec 1, 1995.
- (20) "Cycloaddition of 2,4-Dimethyl-1,3-pentadiene via Electrolysis," Jennifer L. Muzyka* and **Benjamin Neat, IV**, Contributed paper, American Chemical Society Joint Southeast / Southwest Regional Meeting, Memphis, TN, December 1, 1995.
- (21) "Reaction Pathway Calculations for Cation Radical Cycloadditions," Jennifer L. Muzyka* and **Paul N. Brown**, Contributed paper, American Chemical Society Joint Southeast / Southwest Regional Meeting, Memphis, TN, December 1, 1995.
- (22) "Cation Radical Pericyclic Reactions," Invited seminar, Vanderbilt University, Nashville, TN, November 18, 1994.
- (23) "The Selective Photoelectrochemical Oxidation of Vicinal Dicarboxylic Acids," Marye Anne Fox* and **Jennifer L. Muzyka**, Contributed paper, American Chemical Society National Meeting, Dallas, TX, April 1989.
- (24) "A Mechanistic Study of the Photo-Kolbe Reaction of Vicinal Dicarboxylic Acids," Marye Anne Fox* and **Jennifer L. Muzyka**, Contributed paper, Structure and Reactivity Symposium, Austin, TX, March 1989.

- (25) "A Quasiclassical Trajectory Study of the $(\text{H}_2 + \text{D}_2)^+$ System," C. W. Eaker* and **Jennifer L. Muzyka**," Contributed paper, American Chemical Society Meeting in Miniature, Denton, TX April 1985.

Presentations at Schools

- (1) "Internships: Students, Faculty, the Outside World, and Educational Value," Pedagogy Luncheon at Centre College, October 18, 2011.
- (2) "POGIL and Group Problem Solving," Pedagogy Luncheon at Centre College, February 24, 2011.
- (3) "Chemistry Magic Show," presentation with Rachel Gunn for Boyle County High School AP chemistry classes, November 16, 2010. After the magic show, students were taken on tours by Louesa Akin, Jeff Fieberg, and me while January Haile and Don Plattner emceed chemistry games for the other students.
- (4) "Chemistry and Crime," presentation to Robyn Cutright's Forensic Anthropology class, November 10, 2010.
- (5) "Pet Molecules and Moodle," presentation as part of "Imagine, Investigate, and Innovate: Student Research Assignments Redefined Workshop" hosted by Centre library and CTL staff, August 13, 2009.
- (6) "Chemistry Magic Show" and Hands-on Activities, Invited presentation, Kindercare, Lexington, KY, July 27, 2009.
- (7) "Chemistry and Crime: Casey Anthony Case," presentation as part of Centre of Attention Day, April 18, 2009.
- (8) "Careers in Chemistry," Invited presentation, Mary Queen of the Holy Rosary School, Lexington, KY, March 17, 2009.
- (9) "Chemistry Magic Show" and Hands-on Activities, Invited presentation, Huntertown Family Science Day, Versailles, KY, March 14, 2009.
- (10) "Kids and Chemistry (Hands-on Activities)," Invited presentation, Dad's Night Out, Hogsett Elementary, Danville, March 20, 2007.
- (11) "Kids and Chemistry (Hands-on Activities)," Invited presentation, Dad's Night Out, Jennie Rogers Elementary, Danville, March 23, 2007.
- (12) "Chemistry Magic Show," Invited presentation at Phelps Elementary School, September 14, 2006.
- (13) "Soliya, Sensors, and Clickers," Friday Faculty Hour presentation with Donna Plummer and Nayef Samhat, November 11, 2005.
- (14) "Chemistry and Crime: BTK Serial Killer," Centre of Attention Day, April 9, 2005
- (15) "Chemistry Magic Show," Invited presentation at Kindercare, Lexington, KY, August 4, 2004.
- (16) "Chemistry and Crime: Green River Serial Killer," Centre of Attention Day, April 17, 2004.
- (17) "Chemistry Magic Show," Invited presentation to Mrs. Deller's class at The Lexington School,

Lexington, KY, January 16, 2003.

- (18) "Chemistry Magic Show," Invited presentation to Mrs. Campbell's class at Phelps Elementary, Casey County, KY, January 21, 2003.
- (19) "Chemistry Magic Show," Invited presentation to three third grade classes at The Lexington School, Lexington, KY, January 23 and 24, 2003.
- (20) "Chemistry Magic Show" Invited presentation to Montessori class at The Lexington School, Lexington, KY, January 22, 2002.
- (21) "Chemistry Magic Show" Invited presentation at Children's Paradise, Lexington, KY, July 10, 2002.
- (22) "Chemistry Magic Show" Invited presentation at Phelps Elementary in Casey County, Kentucky, October 16, 2001.
- (23) "Chemistry Magic Show" Invited presentation at Kindercare, Lexington, KY July 10, 2001.
- (24) "Chemistry Magic Show" Invited presentation at First Presbyterian Learning Center, Lexington, KY July 10, 2001.
- (25) "Chemistry Magic Show" Invited presentation at Kindercare, Lexington, KY May 19, 2000.
- (26) "Chemistry Magic Show," Invited presentation at Phelps Elementary School in Casey County, December, 1998.
- (27) "Acids and Bases," Invited Presentation to *Learning is Fun Together* students at Centre College, October 27, 1998.
- (28) "Chemistry Magic Show," Invited Presentation, KinderCare, Lexington, KY June 10, 1998.
- (29) "Chemistry Magic Show," Invited presentation, Harlowe Elementary School, Harrodsburg, KY May 19, 1998.
- (30) "Chemistry Magic Show," Invited presentation at St. Dominick's School in Springfield, KY, April 30, 1998.
- (31) "Chemistry Magic Show," Invited presentation, Phelps Elementary School, February 26, 1998.
- (32) "Academic Sampler," Family Weekend presentation, Centre College, October 11, 1997.
- (33) "Chemistry Magic Show," Invited presentation, Kindercare in Lexington, Sept. 5, 1997.
- (34) "Chemistry Magic Show," Invited presentation, St. Augustine School, May 6, 1997.
- (35) "Chemistry Magic Show," Jennifer L. Muzyka and Brandon Allen, Invited presentation, Hustonville Elementary School, April 30, 1997.
- (36) "Chemistry Magic Show," Jennifer L. Muzyka and J. Preston Miles, Invited presentation, Frankfort High School (entire student body), January 22, 1997.
- (37) "Chemistry and Crime," Invited presentation, Mercer County High School, December 5, 1996.
- (38) "Chemistry Magic Show," Jennifer L. Muzyka and Steve Knight, Invited presentation, Lincoln County High School, November 15, 1996.

- (39) "Chemistry Magic Show," Jennifer L. Muzyka and Stephanie Dew, Invited presentation, Phelps Elementary School, November 14, 1996.
- (40) "Kids and Chemistry (Hands-on Activities)," Invited presentation, Gifted and Talented elementary students in Casey County (at Liberty Elementary), April 30, 1996.
- (41) "Chemistry and Crime," Friday Faculty Hour presentation, Centre College, April 26, 1996.
- (42) "Chemistry Magic Show," Jennifer L. Muzyka and J. Preston Miles, Invited presentation, Casey County Middle School (four presentations, each to multiple classes), April 9, 1996.
- (43) "Chemistry Magic Show," Invited presentation, Lexington Christian Academy (two classes), March 12, 1996.
- (44) "Chemistry Magic Show" and "Kids and Chemistry (Hands-on Activities)," Jennifer L. Muzyka and Keith Dunn, Invited presentation, Phelps Elementary School, Casey County, KY, October 31, 1995.
- (45) "Chemistry Magic Show," Jennifer L. Muzyka, Chad Tippey, Paul Brown, and Benjamin Neat, IV, Invited presentation, Woodlawn Children's Home, Danville, KY July 21, 1995.
- (46) "Chemistry Magic Show," Jennifer L. Muzyka and Susan Campbell, Invited presentation, Centre College Science Camp, Danville, KY, June 18, 1995.
- (47) "Careers in Chemistry," Invited seminar, William Fleming High School, Roanoke, VA, December 1993.
- (48) "Careers in Chemistry," Invited seminar, William Fleming High School, Roanoke, VA, October 1992.
- (49) "Careers in Chemistry," Invited seminar, William Fleming High School, Roanoke, VA, December 1991.
- (50) "Careers in Chemistry," Invited seminar, William Fleming High School, Roanoke, VA, April 1991.

Professional Memberships

Kentucky Academy of Science

- Physical Science Representative to Board, 2001-2004
- Member, Awards Committee, 2001-2002
- Member, Research Funds Committee, 2000-2004 (chair, 2003)
- Member, Membership Committee, 2003

American Chemical Society

- Committee on Computers in Chemical Education, 2012-present
- Webmaster, Lexington Section, 2010-present
- Alternate Councilor, Lexington Section, 2002-04
- Member of Nominations Committee for Lexington Section, 1998
- Chair, Lexington Section, 1996-97
- Chair of Bylaws Committee for Lexington Section, 1996
- Chair-elect, Lexington Section, 1995-96
- Secretary, Virginia Blue Ridge Section, 1993 and 1994.

Student Internships Supervised

Natalie Orms	2012	Research with Dr. Chang-Guo Zhan at University of Kentucky
Jasmin Kaeser	2011	Medical Examiner's Internship
Rachel Gunn	2011	Plastic Surgery Internship
Alex Schickli	2010	Ephraim McDowell Hospital Pharmacy
Sara Sanders	2010	Danville Pediatrics
Samuel Sanders	2010	Community Health at Ephraim McDowell
Catie Campbell	2010	Crime Lab Internship
Taylor Childress	2010	The Medicine Shoppe pharmacy internship
Brette Hogan	2009	Pharmacy Internship at The Medicine Shoppe
Mariah Smock	2009	Medical Examiner's Internship
Jeff SoRelle	2009	Ephraim McDowell Hospital Internship
Erin Powers	2009	Crime Lab Internship
Sarah Miller	2008	Plastic Surgery Internship
Joey Polio	2008	Orthopedic Surgery Internship
Maggie Blackburn	2008	Dentistry Internship
Alex Zimmerman	2008	Pharmacy Internship
Rob Winter	2008	Internship at Hall's Pharmacy
Monica Foster	2008	Pharmacy Internship at The Medicine Shoppe
Stacey Gash	2008	Haggin Hospital Pharmacy Internship
Kyle Rakes	2007	Pharmacy Internship
Atif Chowdhury, Brandon Gish, Chris Riney	2007	Ephraim McDowell Hospital Internship
Chad Loveless	2006	Dentistry Internship with Dr. Bridgette Coulter
Blair Whyte	2006	Pharmacy Internship at Ephraim McDowell Hospital
Bek-A Hampu	2006	Optometry Internship at WalMart
Julia Covington	2005	Jefferson Regional Forensic Laboratory
Morgan Tunnell	2005	Hospital Pharmacy in Indiana
Ryan Reynolds, Taylor Vaughan	2005	Ephraim McDowell Hospital
Brandon Cain, Cassie Silk	2004	Ephraim McDowell Hospital
Megan Stanfield, '03	2003	Appalachia HIDTA project in Kentucky State Crime Lab

Cindee Yates, '04	2003	Kentucky Central Forensic Laboratory
Mark Puckett, '04	2003	Ephraim McDowell Hospital
Ashley Jagar, '02	2002	Appalachia HIDTA project in Kentucky State Crime Lab
Stewart Hart, '03	2002	University of Kentucky College of Pharmacology
Sommer Feucht, '00	1999	International Environmental Technology, Inc.
Brittany McNatt, '98	1998	Borden Chemical in Louisville, KY
Jennifer Ponczek	1997	Nursing & Physician's Assistant at Columbia Healthcare
DeWana King, '98	1997	Cayce's Pharmacy
Jeremy Nash, '96	1996	Lexmark in Lexington, KY
Erica Shelsta	1996	Forensic Science Internship, Kentucky State Crime Lab

Student Research Projects Supervised

Vanessa Song, '14	2012	Synthesis of Potential MurA Inhibitors
Natalie Orms, '13		
Josh Winner, '14	2011	Molecular Dynamics Study of MurA
Ben Boone, '13	2011	Synthesis of Potential MurA Inhibitors
Natalie Orms, '13		
Selina Li, '13		
Trinity Hochstetler, '12	2011	Molecular Dynamics Study of MurA
Emily Hogencamp, '11	2011	Refinement of MurA structure
Zack Sweeney, '12	2010	Virtual Screening of MurA
Megan Miller, '12	2010	Websites to Teach Organic
Zack Sweeney, '12	2010	Computational Study of Spiroheterocycles
Louesa Akin, '12	2010	Rational Drug Design: MurA
Anita Allison, '10	2009	Structure Based Design of MurA Binding Ligands
Louesa Akin, '12		
Matt Williams, '11		
Jordan Feigerle, '10	2009	Structure Based Design of MurA Binding Ligands
Monica Foster, '09	2007	Web-Based Practice Problems for Organic Chemistry
Deysi Hernandez, '09		
Swope Munday, '07	2006	Reaction Zoo
Ian Kaster, '06,	2006	Web Access to JCAMP Spectral Data
Luke Hatcher, '06		
Tina Searcy, '05,	2005	Synthesis of Fluoroquinolone Antibiotics
Jennifer Lunn, '06,		
Mike McClintock, '05		
Ian Kaster, '06	2005	Java JCAMP Spectral Display Applet

Lucia Hardi, '00	1999	Electrochemical Oxidation of 2,4-Dimethyl-1,3-pentadiene
Rachael Smith, '99	1997	Electro-oxidative Initiated [4 + 1] and [2 + 1] Cycloadditions: Dimer Formation from 1,1-Diphenylethylene and 2,3-Dimethyl-1,3-butadiene
John Ballert, 99	1997	Dimer Formation through Electrochemically Initiated [4 + 2] Cycloaddition of 2,4-Dimethyl-1,3-pentadiene
Joey Perry, '97	1996	Electrolytic Reactions of Dienes
Benjamin Neat, '97	1995	Cycloaddition of 2,3-Dimethyl-1,3-pentadiene via Electrolysis
Paul Brown, '97	1995	Reaction Pathway Calculations for Cation Radical Cycloadditions
Chad Tippey, '97	1995	Electrolysis of Dienes: The Cycloaddition of 2,3-Dimethyl-1,3-butadiene and 1,1-Diphenylethylene
Shelley Cannon, '95	1995	Electrochemically Mediated Dimerization of 2,4-Dimethyl-1,3-pentadiene
Christine Valera, RC '95	1993	Temperature Effects on Adsorption in the Dimerization of 2,4-Dimethyl-1,3-pentadiene using TiO ₂
Matthew Holman, RC '95	1993	Dimerization of Phenyl Vinyl Ether via Electrolysis
Randy Dillard, RC '93	1993	Temperature Effects on the TiO ₂ Photocatalyzed Diels-Alder Reaction of 2,4-Dimethyl-1,3-pentadiene
Paige Phillips, RC '93	1992-93	Temperature Effects on Semiconductor Photocatalyzed Cation Radical [2 + 2] Dimerization Reactions
Pam Harrell, RC '92	1991	Effects of Temperature on Electron Acceptor Mediated TiO ₂ Photocatalyzed Diels-Alder Reaction
Randy Dillard, RC '93	1991	Temperature Effects on TiO ₂ - Mediated Dimerization of 2,4-Dimethyl-1,3-pentadiene.