

Keith E. Krumpe, Ph.D.
Professor and Chair of Chemistry

Professional Preparation

Emory University (1985-1991)	Ph.D., Organic Chemistry	Advisor: Dr. Albert Padwa
Allegheny College (1981-1985)	BS., Chemistry	Advisor: Dr. Douglas L. Smith

Professional Appointments

UNCA

Chair of Chemistry, 7/2003 – present
Professor of Chemistry, 7/06 – present
Associate Professor of Chemistry, 7/99 – 6/06
Assistant Professor of Chemistry, 7/94 – 6/99, tenured in 1998
Visiting Assistant Professor of Chemistry, 7/92 – 6/94

University of Pittsburgh

Postdoctoral Research Fellow, 3/91 - 4/92

Awards and Honors

Distinguished Teacher Award in Natural Sciences	1998
Distinguished Teacher Award Nominations	1995, 1997, 2001, 2002, 2003, 2005, 2006, and 2007
University Service Award	2004
Ruth and Leon Feldman Professor for Outstanding Scholarship and Service	2006-07

Research

Recent Research Publications

- “Impacts of DBCP on Participants in the Agricultural Industry in a Third World Nation (An Industrial Health and Safety Case Study of a Village at Risk)”;
Yearout, R., Game, X., Krumpe, K., and McKenzie, C.;
International Journal of Industrial Ergonomics Special Edition on Industrial Safety and Health, **Vol. 38**, pp 127-134 (2008).
- “The application of vinylogous iminium salt derivatives to an efficient synthesis of the pyrrole containing alkaloids Rigidin and Rigidin E”
John T. Gupton, Edith J. Banner, Austin B. Scharf, Bradley K. Norwood, Rene P. F. Kanter, Raymond N. Dominey, Jonathan E. Hempel, Anastasia Kharlamova, Itta Bluh-Chertudi, Charles R. Hickenboth, Barrett A. Little, Melissa D. Sartin, Matthew B. Coppock, Keith E. Krumpe, Bruce S. Burnham, Herman Holt, Karen X. Du, Kartik M. Keertikar, Anthony Diebes, Shahnaz Ghassemi and James A. Sikorski *Tetrahedron* **62**, 8243-8255 (2006).
- “The Application of Vinylogous Iminium Salt Derivatives to an Efficient Relay Synthesis of the Pyrrole Containing Alkaloids Polycitone A and B.”
John T. Gupton* Robert B. Miller, Keith E. Krumpe, Stuart C. Clough, Edie J. Banner, Rene P.F. Kanter, Karen X. Du, Kartik M. Keertikar, Nicholas E. Lauerman, John M. Solano, Bret R. Adams, Daniel W. Callahan Barrett A. Little, Austin B. Scharf and James A. Sikorski *Tetrahedron* , **61**,1845-1854 (2005)
- “Lipid-lowering effects of ethyl 2-phenacyl-3-aryl-1H-pyrrole-4-carboxylates in rodents.”
Holub, Justin M.; O’Toole-Colin, Kathy; Getzel, Adam; Argenti, Anthony; Evans, Michael A.; Smith, Daniel C.; Dalglish, Gerard A.; Rifat, Shahzad; Wilson, Donna L.; Taylor, Brett M.; Miott, Ulander; Glersaye, Josephine; Lam, Kam Suet; McCranor, Bryan J.; Berkowitz, Joshua D.; Miller, Robert B.; Lukens, John R.; Krumpe, Keith; Gupton, John T.; Burnham, Bruce S. *Molecules* , **9**(3), 135-157 (2004)
- “Synthesis and Cytotoxicity of Substituted Ethyl 2-Phenacyl-3-phenylpyrrole-4-carboxylates”;
M. A. Evans, D. C. Smith, J. M. Holub, A. Argenti, M. Hoff, G. A. Dalglish, D. L. Wilson, B. M. Taylor, J. D. Berkowitz, B. S. Burnham, K. Krumpe, J.T. Gupton, T.C. Scarlett, R. Durham, Jr., and I. H. Hall; *Arch. Pharm. Pharm. Med. Chem.*, **336**, 1-10 (2003)
- “The Synthesis and Cytotoxicity of Brominated 2,4-Disubstituted and 2,3,4-Trisubstituted Pyrroles in Murine and Human Cultured Tumor Cells”;
J. Gupton, B. Burnham, A. Warren, C. Barnes, K. Krumpe, K. Du, J. Sikorski and I. Hall; *Arch. Pharm. Pharm. Med. Chem.*, **333**, 3-9 (2000).
- “The Application of Vinylogous Iminium Salt Derivatives to a Regiocontrolled and Efficient Relay Synthesis of Lukianol A and Related Marine Natural Products”;
J. Gupton, K. Krumpe, B. Burnham, T. Webb*, J. Shuford* and J. Sikorski, *Tetrahedron*, **55**, 14515-14522 (1999).
- “The Cytotoxicity and Mode of Action of 2,3,4-Trisubstituted Pyrroles and Related Derivatives in Human Tmolt4 Leukemia Cells”;
John T. Gupton, Bruce S. Burnham, Brian D. Byrd, Keith E. Krumpe, Cheryl

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Stokes, Jordan Shuford, Scott Winkle, Tammy Webb, Amy E. Warren, Cheryl R. Barnes, Jennifer Henry, and Iris H. Hall, *Pharmazie*, **54**, 691-697 (1999).

"Cytotoxicity of Substituted Alkyl-3,4-bis(4-methoxyphenyl)pyrrole-2-carboxylates in L1210 Lymphoid Leukemia Cells"; Bruce Burnham, John T. Gupton, Keith E. Krumpe, and Iris H. Hall; *Arch. Pharm. Pharm. Med. Chem*, **331**, 337 (1998).

Grants

11 research grants totaling \$290,000

Collaborators

Dr. Noah Allen (UNCA), Dr. Bruce Burnham (Ryder College), Dr. John Gupton (University of Richmond), Dr. Dennis Liotta (Emory University), Dr. Jim Sikorski (G.D. Searle R&D), Dr. Robert Yearout (UNCA)

Synergistic activities

Curriculum Development – Biochemistry Concentrations, Environmental Chemistry Concentration, Project-based Organic Labs

Laboratory Design – designed and coordinated five lab renovations, designed and coordinated chemistry portion of a new science building

Liberal Studies Curriculum – helped design/implement UNCA's ILS program

Pedagogy

Recent Presentations

"SENCER and Pre-Medicine: An Exploratory Conversation"; Richard Keeling, Edward Katz, and Keith Krumpe; *2007 SENCER Summer Institute*, Portland, ME; August 6, 2007.

"Expanding Students' Understanding of Civic Issues: Integrating the Sciences with Other Disciplines"; Steve Bachofer, Monica Devanas, Edward Katz, and Keith Krumpe; *2007 SENCER Summer Institute*, Portland, ME; August 4, 2007.

"The Application of SENCER Values to Curricular Reform and Implementation: UNCA Asheville's Integrative Liberal Studies Topical Clusters"; Ed Katz and Keith Krumpe; *2007 SENCER Summer Institute*, Portland, ME; August 4, 2007.

"Integrative Liberal Studies Topical Clusters at UNC Asheville: A SENCER Project in Liberal Arts Curricular Reform"; Edward Katz and Keith Krumpe; *2007 SENCER DC Symposium and Poster Session*; Washington, DC; March 12-13, 2007.

"The Application of SENCER Values to Curricular Revision: UNC Asheville's Integrative Liberal Studies Topical Clusters"; Edward Katz and Keith Krumpe; *2006 SENCER Summer Institute*, San Jose, CA; August 4, 2006.

"Integrative Liberal Studies Topical Clusters at UNC Asheville: A SENCER Project in Liberal Arts Curricular Reform"; Ed Katz and Keith Krumpe; *National Center for Science and Civic Engagement's SENCER Capitol Hill Seminar/Poster Session*; Wednesday, April 26, 2006

"The Application of SENCER Values to Curricular Revision"; Ed Katz and Keith Krumpe; *2005 SENCER Summer Institute*, San Jose, CA; August 8, 2005.

"Non-Traditional Organic Pedagogy: A Research-Based Philosophy." Holt, Herman L.; Krumpe, Keith E.; *56th Southeast Regional Meeting of the American Chemical Society*, Research Triangle Park, NC, United States, November 10-13 (2004).

Professional Affiliations

ACS, Organic Division of ACS, Western Carolinas Section of ACS

Council on Undergraduate Research

Project Kaleidoscope *Faculty for the 21st Century*

SENCER

Summer Institute Participant	2003 through 2007
Summer Institute Faculty	2007
Senior Associate	9/2007 – present
SCI-South co-Director	1/2008 – present