

Nolan Carter

Employment:

University of Central Arkansas
Associate Professor of Chemistry
August 2003-present

Education:

Colorado State University, Fort Collins, CO
Ph.D., Organic Chemistry, 2003
Adviser: Marc M. Greenberg
Thesis: "Independent Generation and Characterization of 5,6-Dihydro-2'-deoxyuridin-6-yl"

University of Arkansas, Fayetteville, AR
B.S., Chemistry, 1997

Professional Experience:

University of Central Arkansas, Conway, AR
Associate Professor of Chemistry
May 2009-present

University of Central Arkansas, Conway, AR
Assistant Professor of Chemistry
August 2003-present

Colorado State University, Ft. Collins, CO
Graduate Research Assistant
August 1997-July 2003

Publications:

"Characterization and Mechanism of Formation of Tandem Lesions in DNA by a Nucleobase Peroxyl Radical," Hong, I. S.; Carter, K. N.; Sato, K.; Greenberg, M. M. *J. Am. Chem. Soc.* **2007**, *129*, 4089-4098.

"Evidence for Glycosidic Bond Rotation in a Nucleobase Peroxyl Radical and Its Effect on Tandem Lesion Formation," Hong, I. S.; Carter, K. N.; Greenberg, M. M. *J. Org. Chem.* **2004**, *69*, 6974-6978.

"Tandem Lesions Are the Major Products Resulting from a Pyrimidine Nucleobase Radical," Carter, K. N.; Greenberg, M. M. *J. Am. Chem. Soc.* **2003**, *125*, 13376-13378.

"Independent Generation and Study of 5,6-Dihydro-2'-deoxyuridin-6-yl, a Member of the Major Family of Reactive Intermediates Formed in DNA from the Effects of γ -Radiolysis," Carter, K. N.; Greenberg, M. M. *J. Org. Chem.* **2003**, *68*, 4275-4280.

“Direct Measurement of Pyrimidine C6-Hydrate Stability,” Carter, K. N.; Greenberg, M. M. *Bioorg. Med. Chem.* **2001**, *9*, 2341-2346.

“Chemical Evidence for Thiyl Radical Addition to the C6-Position of a Pyrimidine Nucleoside and Its Possible Relevance to DNA Damage Amplification,” Carter, K. N.; Taverner, T.; Schiesser, C. H.; Greenberg, M. M. *J. Org. Chem.* **2000**, *65*, 8375-8378.

Recent Presentations:

“Improved Synthesis of a Valine Radical Precursor,” Parker, W. R.; Carter, K. N. American Chemical Society (ACS) National Meeting, New Orleans, LA. (4/2013)

“Synthesis of Phenylalanine and Valine Radical Precursors,” Desrochers, C.; Wilkerson, J. Carter, K. N. American Chemical Society (ACS) National Meeting, New Orleans, LA. (4/2013)

“Synthesis of Amino Acid Radical Precursors,” Desrochers, C.; Wilkerson, J.; Carter, K. N. STEM Posters at the Capitol (2/13)

“Synthesis of Selenium-Containing Amino Acid,” Desrochers, C.; Wilkerson, J.; Parker, W. R.; Carter, K. N. Arkansas INBRE Research Conference, Fayetteville, AR (10/12).

“Amino Acid Radical Precursors,” Martin, Darrell J.; Stogsdill, Cory B.; Carter, K. Nolan. American Chemical Society (ACS) National Meeting, San Diego, CA (4/10).

“Photochemical Generation of an Amino Acid Radical,” Stogsdill, Cory B.; Carter, K. Nolan. Arkansas Association of Public Universities Annual Conference, Little Rock, AR (10/08).

“A Photochemically-Triggered Amino Acid Radical Precursor,” Green, Tori Michelle; Carter, K. Nolan. American Chemical Society (ACS) National Meeting, New Orleans, LA (4/08)

“An Investigation of DNA Damage Induced by the Chemotherapeutic Drug Cyclophosphamide,” Smith, J. M.; Mehta, A.; Carter, K. N.; American Chemical Society (ACS) National Meeting, Chicago, IL, (3/07).

“Using a Photolabile Precursor to Study Radical-Mediated Protein Damage,” Green, T. M.; Carter, K. N.; American Chemical Society (ACS) National Meeting, Chicago, IL, (3/07).

“An Investigation of DNA Damage Induced by the Chemotherapeutic Drug Cyclophosphamide,” Smith, J. M.; Mehta, A.; Carter, K. N.; 20th National Conference on Undergraduate Research (NCUR), Asheville, NC, (4/06).

“DNA Damage Induced by the Chemotherapeutic Drug Cyclophosphamide,” Smith, J. M.; Mehta, A.; UCA College of Natural Sciences and Mathematics Poster Symposium, (4/06).

Memberships & Awards:

University Teaching Excellence Award (2009)

American Chemical Society (1997-present)

