

Conjugate Addition / Electrophilic Aromatic Substitution Studies En Route to Hunanamycin A

A method development study focused on the intramolecular lewis-acid catalyzed conjugate addition / electrophilic aromatic substitution (CA/EAS) of acrylolyated aniline derivatives, has been initiated. The synthesis of the amide starting material, requisite to our current investigation, will be optimized based on literature precedent. The primary goal of this study is to develop and optimize an efficient and robust CA/EAS reaction that will enable additional long-term synthesis goals. Long-term goals include the total synthesis of hunanamycin A (HA). Advanced intermediates en route to HA, and related derivatives, will be tested for antibacterial activity. HA is a natural product isolated in small quantities from *Bacillus hunanensis*; it has exhibited antibacterial properties against *Salmonella* and *E. coli*.

Student Researcher: Joy E. Thames
Faculty Advisor: Dr. Steven M. Kennedy