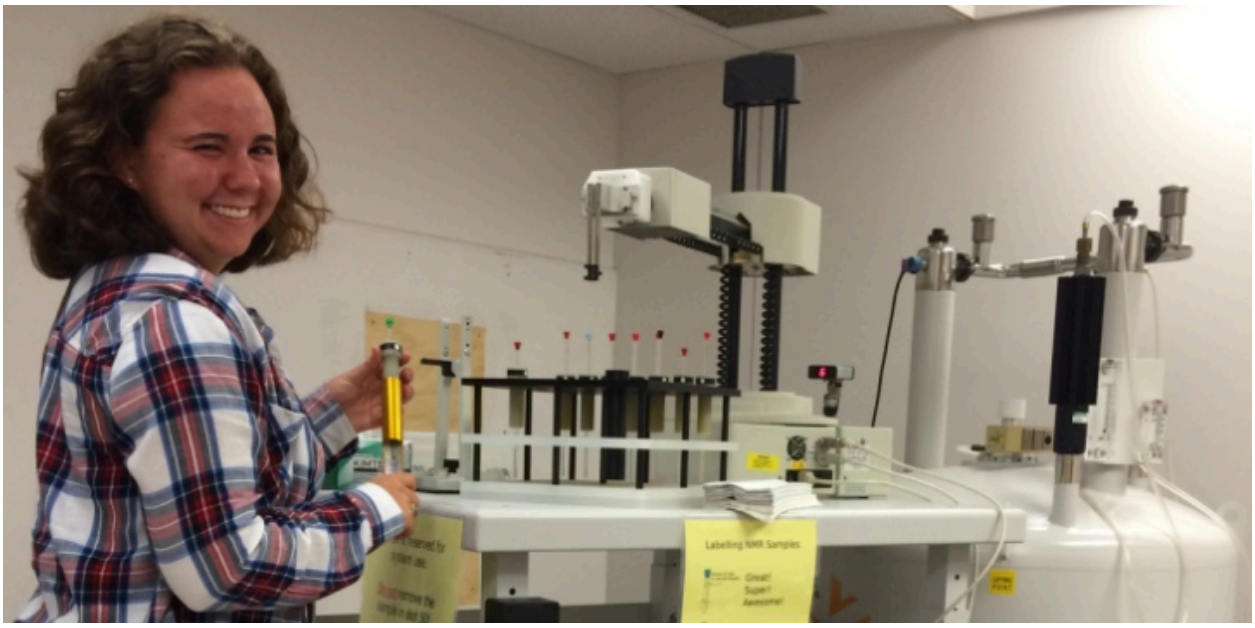
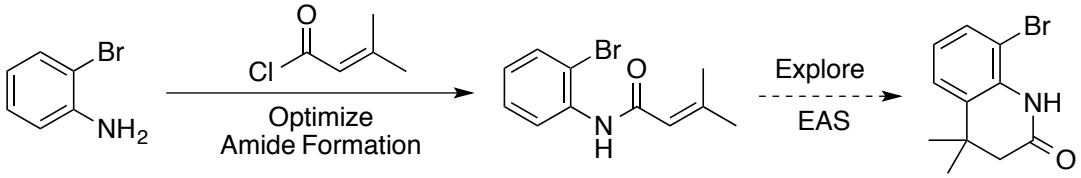


Optimization of Amide Formation: Synthesis of Precursors for Aromatic Substitution



Previously in our laboratory, *N*-(2-bromophenyl)-3-methyl-2-butenamide has been synthesized in up to 75% yield and reasonable purity following column chromatography. Current work is focused on optimization and scale-up of the amide formation reaction to obtain *N*-(2-bromophenyl)-3-methyl-2-butenamide in larger quantities, increased yield, and good purity. Scale-up will enable the next study; work will commence toward the development and optimization of an intramolecular electrophilic aromatic substitution (EAS) reaction. Long-term goals include continued synthetic studies toward Hunanamycin A (HA). Isolated in small quantities from *Bacillus hunanensis*, HA has exhibited antibacterial properties against various pathogens such as *Salmonella* and *E. coli.*

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