

## Synthesis of tert-Butyl(5-(2-iodoethyl)-2-methoxyphenoxy)dimethylsilane; a Side Chain Precursor that is Required for the Total Synthesis of the Hancock Alkaloid, Galipeine

Ahnaf Ahmed, Zane Bertoli and Christopher W. Alexander

Tetrahydroquinolines (THQs) are a group biologically active of N-heterocyclic molecules derived from natural sources that have served as the basis for a variety of anti-bacterial, anti-parasitic, and anti-viral drugs. The 1,2,3,4-tetrahydroquinoline alkaloids, (Hancock alkaloids), Angustureine, Cuspareine, Galipeine and Galipinine, isolated from the bark of the Angostura tree found in Venezuela, have demonstrated anti-malaria activity, analgesic properties, and a range of enzyme inhibitory activity. This poster presents the results to synthesize tert-butyl(5-(2-iodoethyl)-2-methoxyphenoxy)dimethylsilane (tBIMDS) from 2-(4-hydroxyphenyl)ethanol (tyrosol). tBIMDS is a non-commercially available starting material that will be coupled with the  $\alpha$ -amino-cycloalkylcuprate of N-tert-butyl-1-(3,4-dihydroquinolin-1(2H)-yl)methanimine as the key reaction step in our planned total synthesis of Galipeine.