SYNTHESIS AND DIASTEREOSELECTIVE ADDITIONS TO PYRAZOLINES CREATED VIA A NOVEL RING-CLOSURE MECHANISM Elijah St. Germain, Pradip Maity, and Salvatore D. Lepore*

We have recently discovered a versatile route to azaproline derivatives via a ring-closing step of beta-alkynyl hydrazines in the presence of a quaternary ammonium or phosphonium salt. What distinguishes this route from other published azaproline syntheses is the asymmetric induction of a quaternary chiral center via a phase transfer catalyzed kinetic resolution. We now demonstrate that N-Boc protected dehydro-azaprolines can be prepared in this manner to allow for facile and selective deprotection leading to pyrazolines. Our efforts to diastereoselectively derivatize these pyrazolines to afford highly functionalized and medicinally valuable azaproline derivatives will also be reported.