KESLEY WAGONER#, and JOANNA WEBB, Department of Chemistry, West Virginia Wesleyan College, Buckhannon, WV, 26201. **Synthesis of a rhodium complex bearing a chiral nitrogen-based ligand for asymmetric hydrogenation**.

Asymmetric hydrogenation of prochiral molecules by chiral metal complexes has emerged as a useful synthetic tool for the preparation of single enantiomer molecules and has diverse application in a variety of industries, including pharmaceuticals. To date, most catalytic systems for asymmetric hydrogenation are supported by phosphine ligands. Thus, chiral nitrogen-based ligands provide an opportunity to investigate a relatively underexplored area of hydrogenation chemistry. To this end, we are investigating rhodium complexes supported by chiral nitrogen-based ligands. The synthesis of a previously reported chiral nitrogen ligand (R,R)-2,6-bis[1-(N-piperidinyl)ethyl]pyridine has been achieved through a modified synthetic procedure and characterized by NMR spectroscopy. Attempts to synthesize our target rhodium complex in order to investigate asymmetric hydrogenation reactivity are currently underway.