**Goal:**
Increase RON of lights to 100 and produce synthetic lubricant base oil from heavies

**Approach:**
- Skeletal isomerization of Olig 1 product, followed by oligomerization and RON verification
- Fuel oil characterization, hydroisomerization, and evaluation of renewable synthetic lube oil property-structure relationships

**Impact on the Bioenergy Industry:**
Decrease effective cost of PNNL/LT process jet fuel by >$1/gal via creation of high value gasoline and synthetic lubricant co-products.

**ChemCatBio Capabilities Leveraged:**
Catalyst preparation, flow reactor testing, hydrocarbon characterization, and techno-economic analysis.