Catalyst Development for Selective Electrochemical Reduction of CO$_2$ to High-value Chemical Precursors

**Goal:**
Enhance selectivity and energy efficiency of electrochemical carbon dioxide reduction

**Approach:**
Modify copper catalyst and carbon support to favor desired products

**Impact on the Bioenergy Industry:**
Improve yield of fermentation through utilization of CO$_2$ co-product and provide a new source of feedstock for bio-processes

**ChemCatBio Capabilities Leveraged:**
Nanoparticle catalyst design, synthesis, and advanced characterization