



U.S. Department of  
Agriculture  
National Institute of  
Food & Agriculture



Project Title: *Hydrocarbon Fuels, Chemicals and Intermediates from a Novel Biomass Pyrolysis Technology (Phase II)*

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### Project Goal

The overall goal of Phase II research is to make this novel technology ready for scale-up and commercialization through demonstration of the proof-of-concept and analysis of economic feasibility.

### Specific objectives:

1. To optimize key co-pyrolysis reaction conditions with the best catalysts identified in Phase I.
2. To determine the production cost of hydrocarbon fuels, chemicals and intermediates at the optimized conditions.

### Expected Project Outcomes

This project will provide broader understanding of how reaction conditions affect catalytic co-pyrolysis of biomass that will allow the optimization of reaction conditions and pathways that lead to effective co-pyrolysis technology. These results will serve as proof-of-concept to demonstrate the technology and file for protection of additional intellectual properties. A preliminary economic feasibility study will be available to potential investors/government to consider commercialization of this technology. Beyond the project duration and proposed activities, the project investigators are committed to the successful deployment of the emerged technology and promote commercialization of the biomass-based industry by working with OSU TDC and potential commercial partners.



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