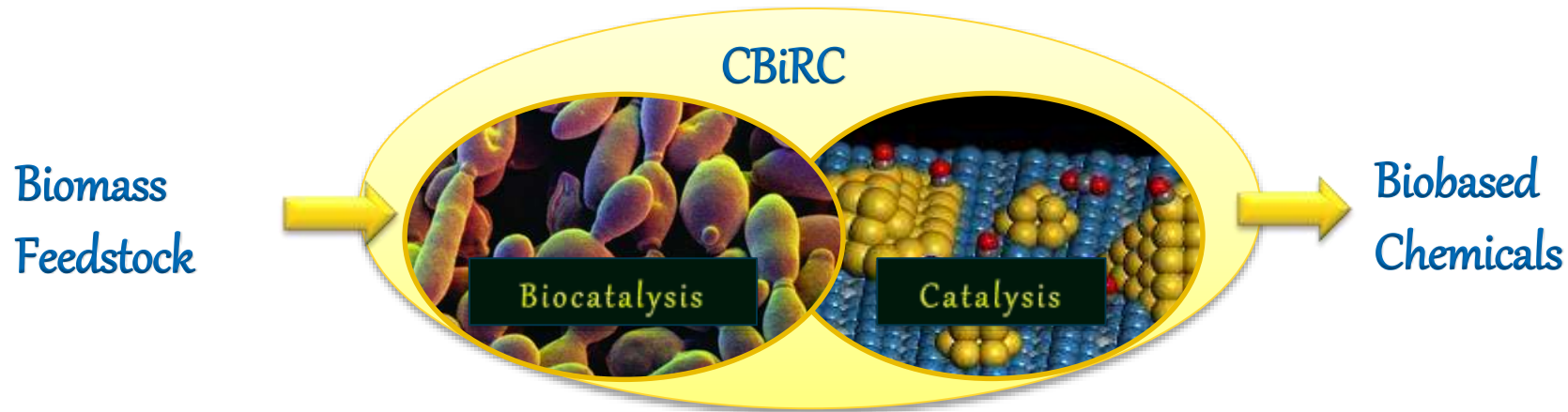


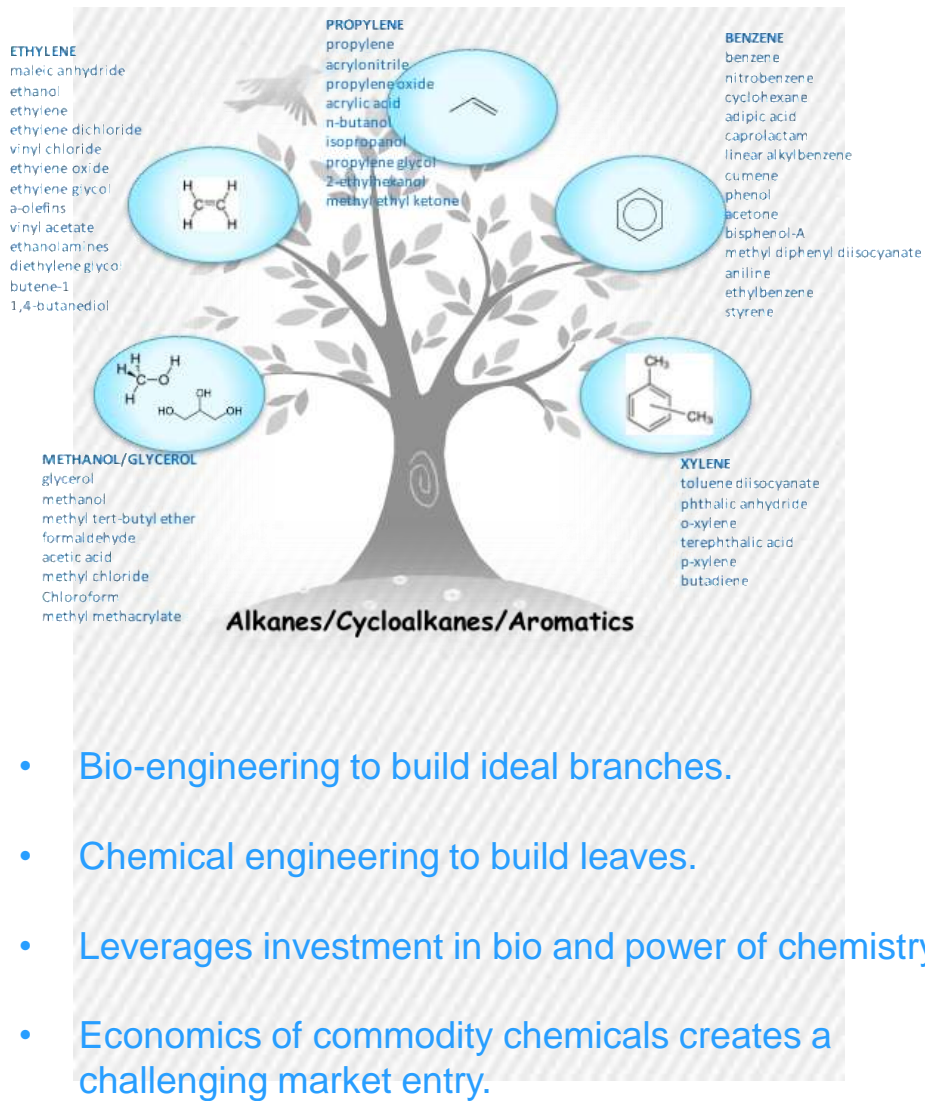
NSF Engineering Research Center



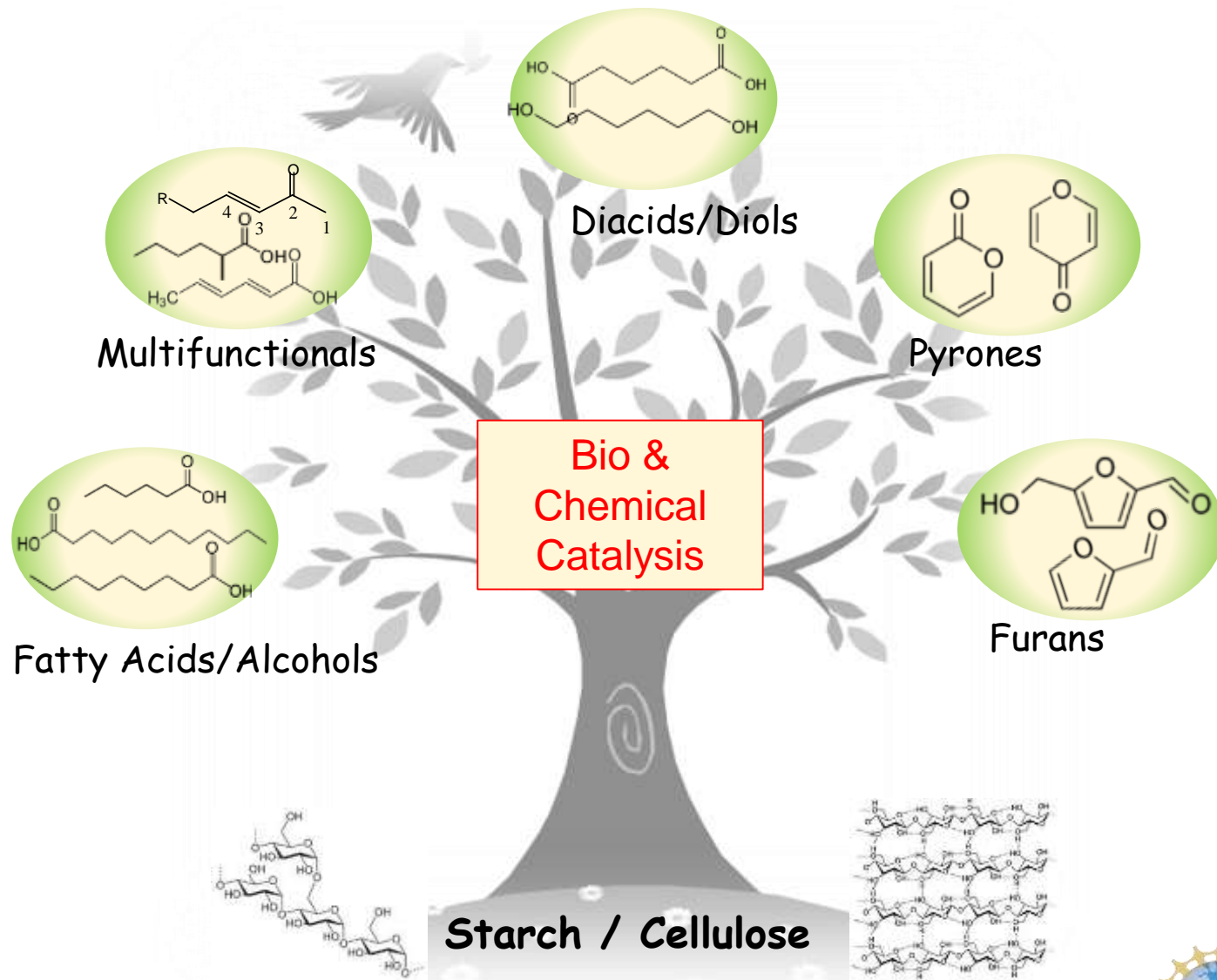
IOWA STATE UNIVERSITY



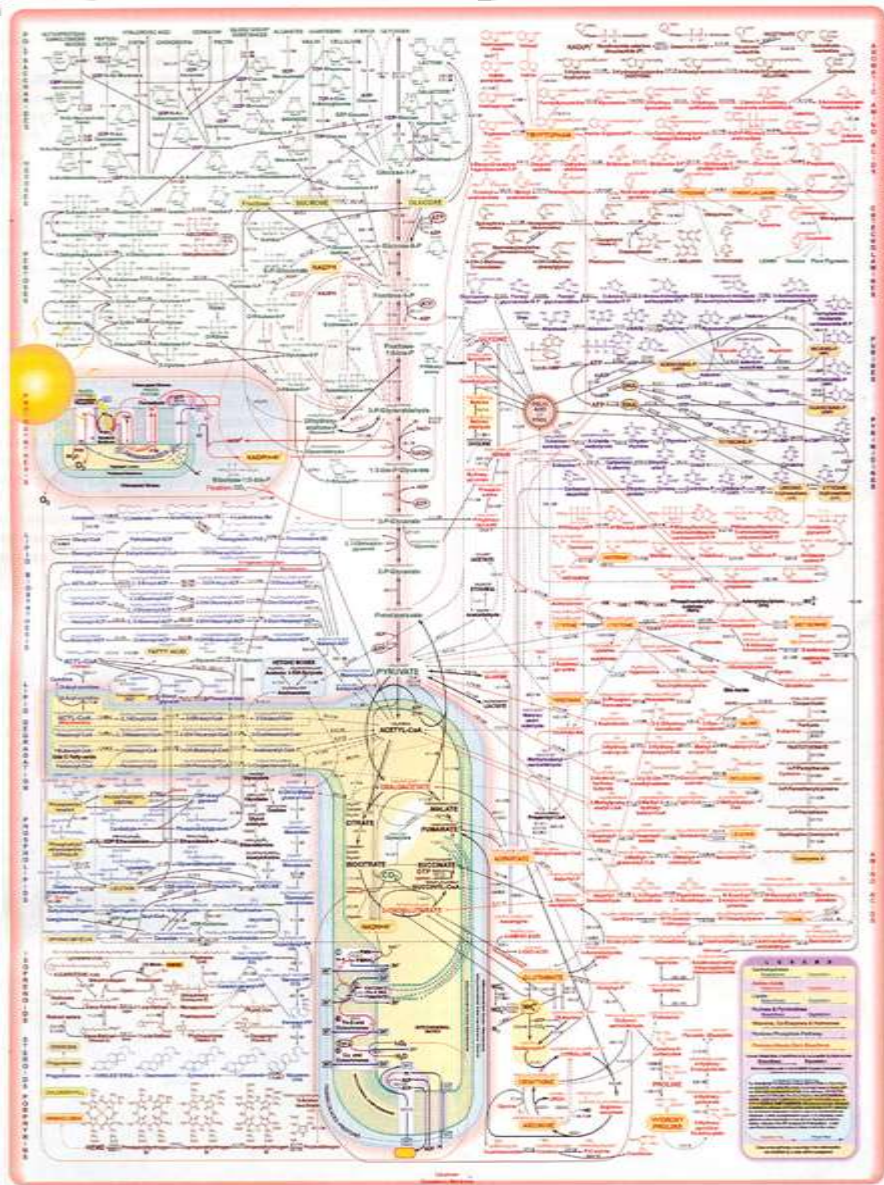
Build Intermediates to make Branches



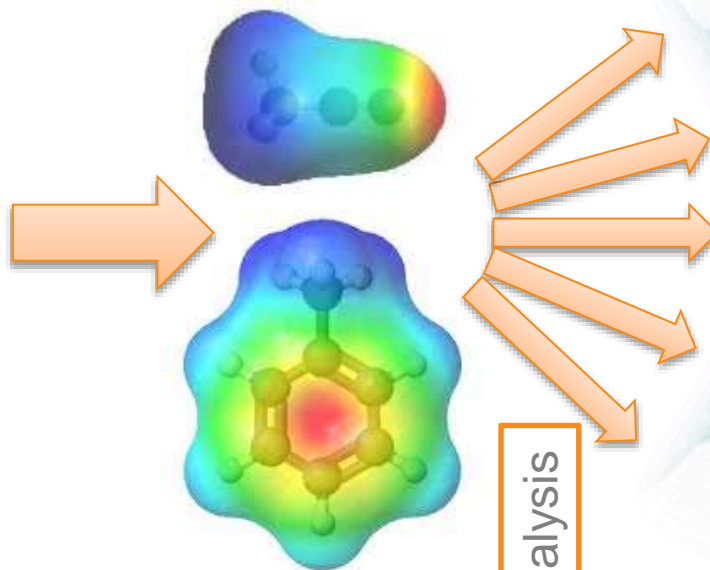
- Bio-engineering to build ideal branches.
- Chemical engineering to build leaves.
- Leverages investment in bio and power of chemistry.
- Economics of commodity chemicals creates a challenging market entry.



Computational Biocatalysis



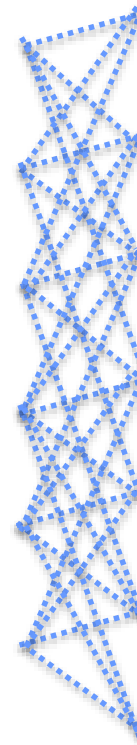
Ideal
Intermediate
Molecules



Biocatalysis

Chemical Catalysis

Platform Array of Molecules



- Polymers
- Resins
- Personal Care
- Surfactants
- Lubricants
- Composites
- Materials



Thank you!!

