

## **Carbon Conserving Redox Balanced Co-Utilization of Aromatics and Sugar by Engineered *Pseudomonas putida***

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**Project goals: Establish the scientific knowledge and new technologies to transform the maximum amount of carbon available in bioenergy crops into biofuels and bioproducts.**

Lignocellulosic biomass is presently an underutilized resource due to lack of a microbial host that can consume all the simple and complex carbohydrates present in the biopolymer. Here we present a rewired central carbon metabolism approach that integrates phosphoketolase bypass in *P. putida* strain KT2440 mutants for ED (Entner-Doudoroff) pathway. We see its impact on reviving growth on glucose minimal medium and co-utilization of aromatics and glucose, to support synthesis of a key cellular intermediate (acetyl-CoA) for biofuel/chemical production.

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