



# Optimization of *C. ljungdahlii* for the Valorization of Combustion Off-Gas

Matthew Lucia  
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# Acknowledgements



Jonathan  
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Wei Xiong



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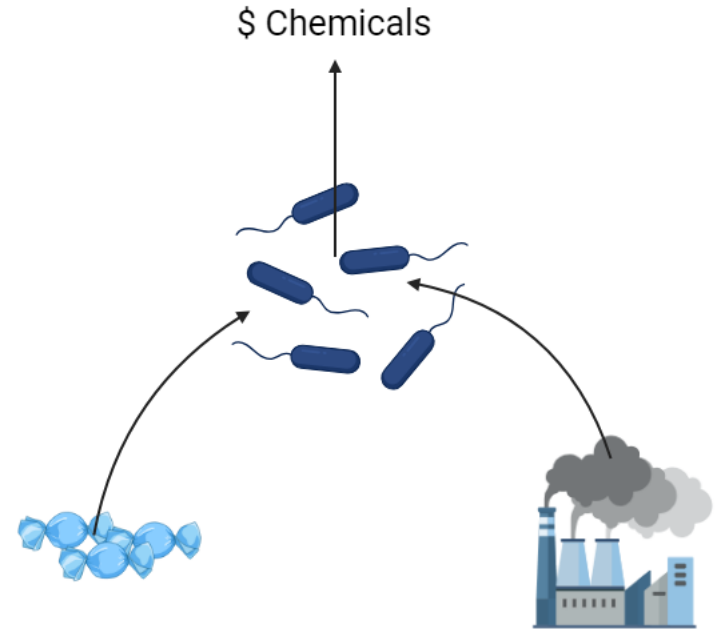
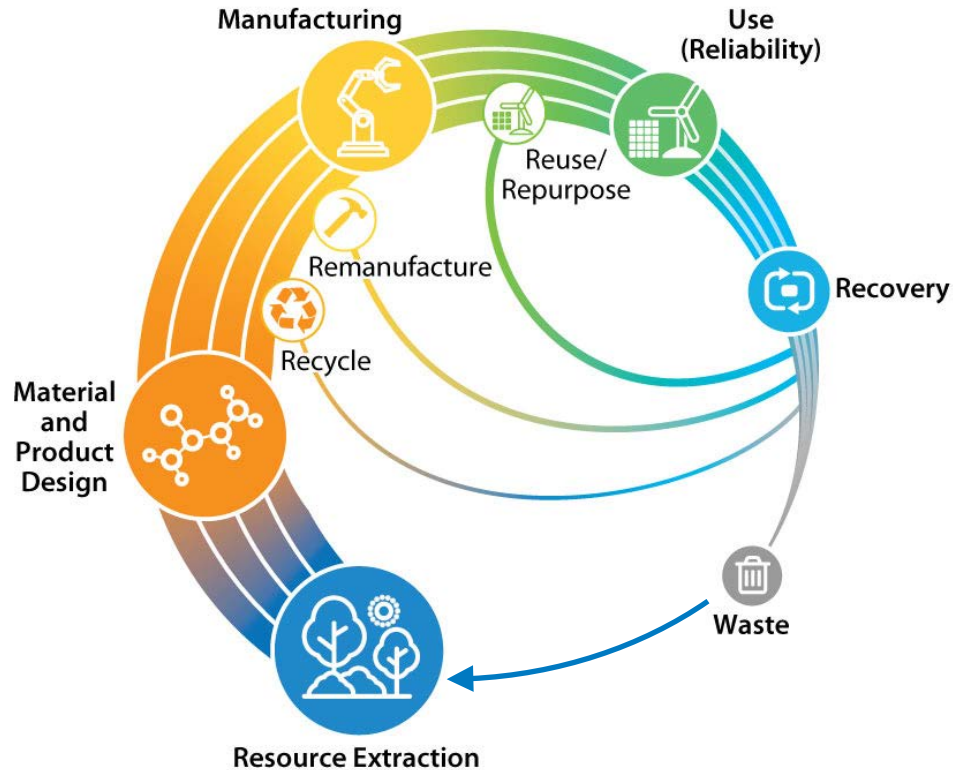
Chris Urban



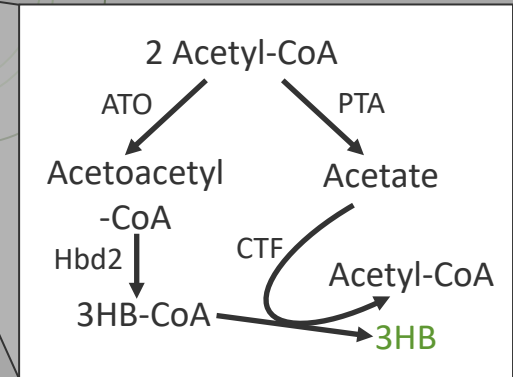
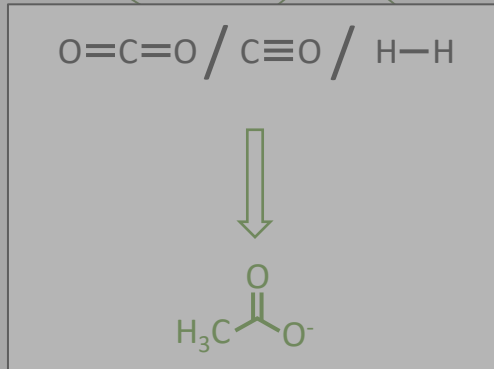
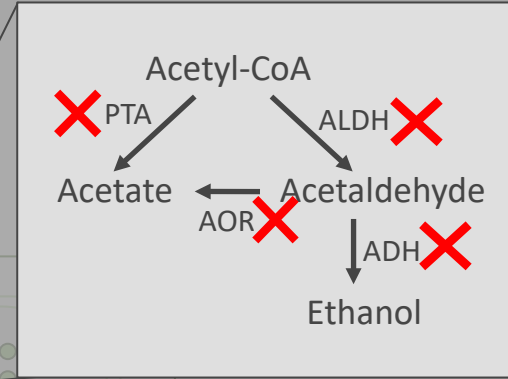
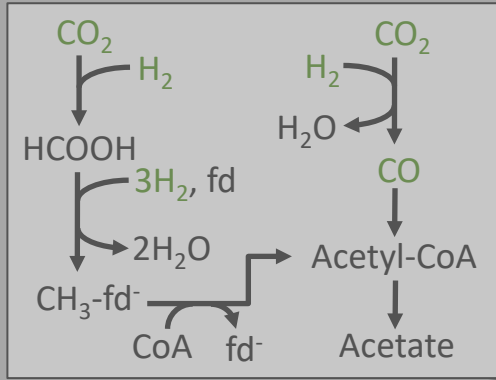
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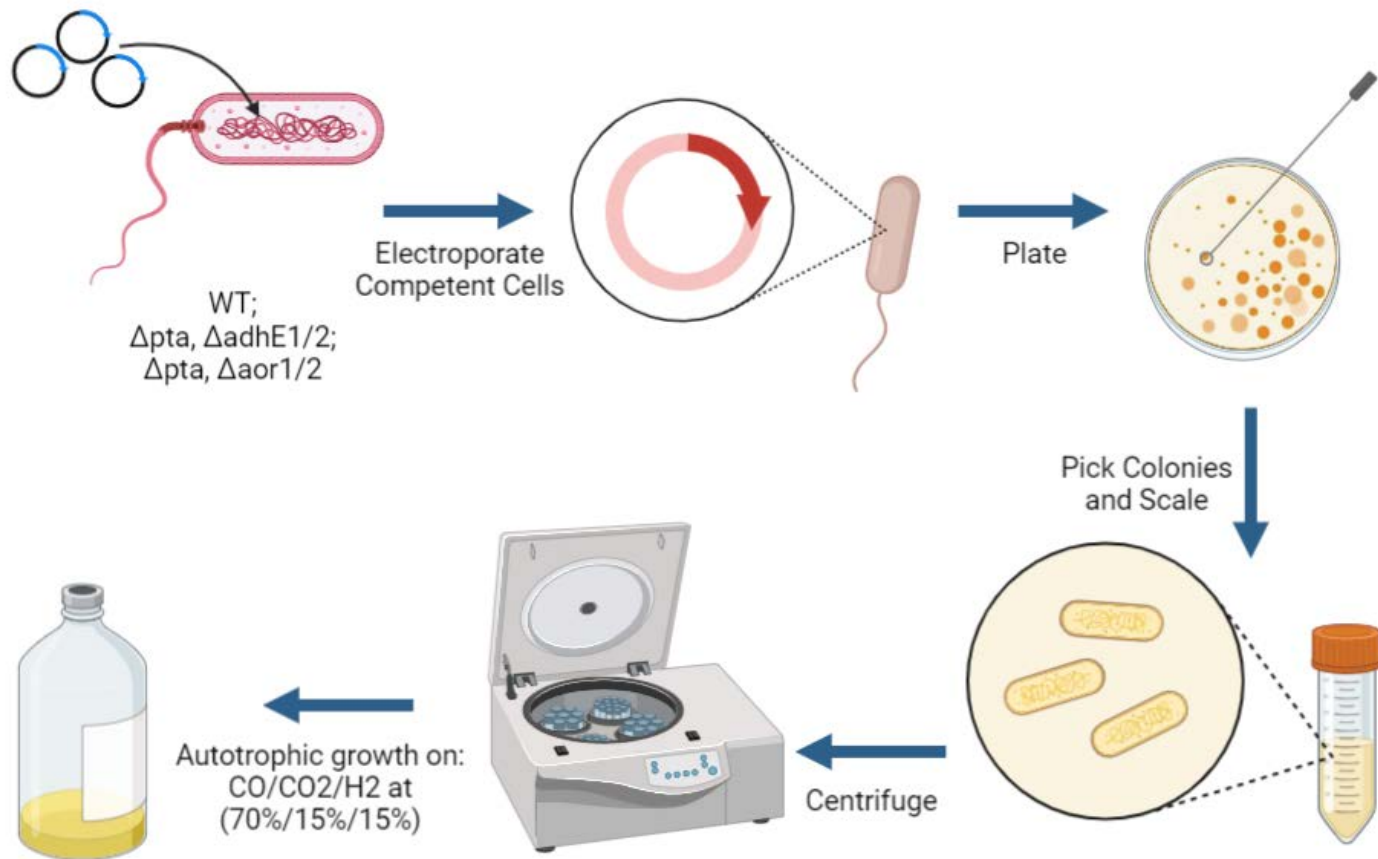
# Synthetic Biology is a Useful Tool to Valorize Chemical Waste and Low-Value Feedstocks



# C. ljungdahlii is Optimal for Low-Energy, Combustion Waste Valorization

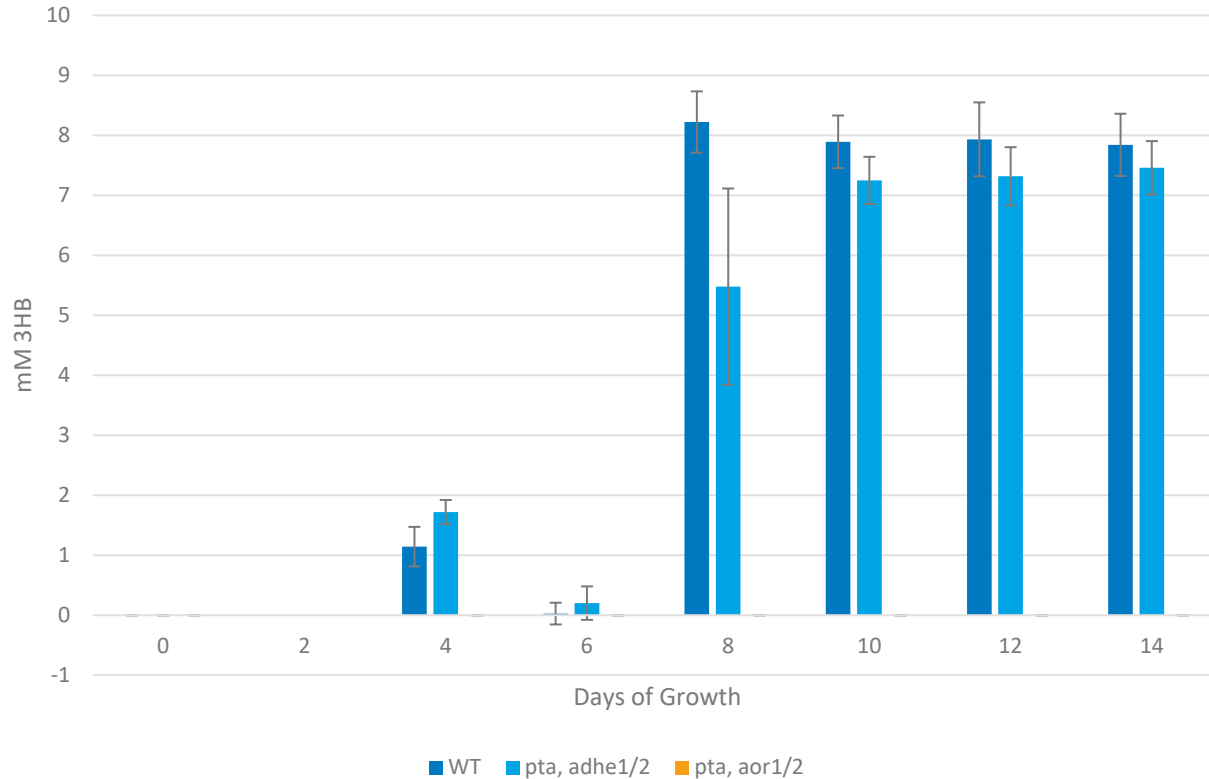


# Growth Slower in Knockout Strains with 3HB Plasmids



# 3HB Production

mM 3HB vs. Days of Growth



The circular economy can be realized with synthetic biology by creating precious materials from unutilized waste streams.

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