

## Terragia Secures \$6M to develop Cost-Competitive, Low-Carbon Biofuel technology

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Terragia Biofuel, a technology startup aiming to drive the next generation of biofuels, today announced it has raised a \$6 million seed round led by Engine Ventures and Energy Impact Partners (EIP). The company will use the capital to commercialize its novel biology-based approach to converting cellulosic biomass into ethanol and other products, expand its employee headcount and initiate partnerships with major biofuel producers.

Terragia uses engineered thermophilic bacteria to break down cellulosic biomass and convert it into ethanol and other chemical products. The company's technology avoids key features responsible for the high cost of conventional cellulosic biofuel production by one-step consolidated bioprocessing without added enzymes, and leveraging mechanical disruption during fermentation (i.e., cotreatment) in lieu of thermochemical pretreatment.

Director of the National Renewable Energy Laboratory Martin Keller comments, "Cellulosic biofuels are a route to low-carbon fuels for aviation and other difficult-to-electrify transport modes as well as CO<sub>2</sub> removal from the atmosphere, both of which are critical for climate stabilization. One-step biological conversion of cellulosic biomass without added enzymes or thermochemical pretreatment has clear cost reduction potential relative to other process concepts." Adds Terragia CTO and Co-Founder Lee Lynd, a Distinguished Professor at Dartmouth's Thayer School of Engineering and Director of the Advanced Second Generation Biofuel Lab at the University of Campinas, Brazil, "Conversion of ethanol to fuels for

planes, ships, and trucks is a leading option for approximately half of future global transportation energy demand, for which electrification is likely impractical, corresponding to a trillion dollar market. With full penetration of this market, Terragria's technology is projected to displace 3 gigatons of CO<sub>2</sub> emissions annually and enable capture of a yet larger amount of CO<sub>2</sub>.

In partnership with Dartmouth College and the University of Campinas, the ongoing development of Terragria's technology is supported by funding from the U.S. Department of Energy Center for Bioenergy Innovation and the São Paulo Research Foundation, by grants from the U.S. Department of Agriculture and National Science Foundation, as well as private capital.