

Converting Methane to Methanol, Biologically.

CarbonBridge was founded in 2021 by Manu Pillai, with Sophia Xu joining as co-founder in 2023 to focus on the pivot to bioconversion. Based in New York, the team uses their highly efficient, direct-gas bioreactor to convert waste gasses to energy with microbes. Ocean Exchange awarded them the \$100,000 Orcele award in 2024.



They use their microbe technology to convert Methane to Methanol for fuel or oils to glycolipids for cosmetics or to biosurfactants for detergents. It is both an efficient and cost effective method of converting gasses into valuable bio-industrial chemicals. The Methanol produced serves as a cleaner alternative for the maritime industry, facilitating a gradual transition to

net-zero emissions without the need for extensive infrastructure changes.

In addition to Ocean Exchange funding in 2024, they were awarded \$719,881 from ARPA-E under the GREENWELLS program. These brought their total raise over \$2.6 million.

For 2026, Co-Founder Sophia Xu was named to Forbes 30 Under 30 list for Energy and Green Tech. CarbonBridge's direct-gas reactors have been picked by Berkeley Lab in California for biosurfactant research and A*Star in Singapore for CO₂ to value, demonstrating the cutting edge platform value that has been created.

Winning Formula: Working from first principles enables us to ask why, and why not, opening up opportunities for innovation across biology, hardware, software - and business.

Discover more about their mission and technology: <https://www.carbonbridge.io/>

(Photo of the DGF-100 bioreactor platform, revealed at the ARPA-E Energy Summit, April 2026 with Sophia and Manu. 2nd prize from ARPA-E for our instant pitch competition)