CEO:	Dr. Jennifer Holmgren
Board:	Nigel Gormly, New Zealand Superannuation Fund; Jennifer Holmgren, LanzaTech; Jim Messina, The Messina Group; Datuk Abdul Rahim Hashim, Petronas; Gary Rieschel, Qiming Ventures; Toru Ryoso, Mitsui; Sean Simpson (founder), LanzaTech; Roger Wyse, Malaysian Life Sciences Capital Fund
140+ Staff Globally:	HQ, Laboratories: Chicago Offices in: London; Shanghai; New Delhi;
Funding:	US $250M+
IP Portfolio:	342 issued; Over 390 Patents pending

Introduction

LanzaTech is the global leader in gas fermentation technology. The company provides novel and economic routes to ethanol, jet fuel and high value chemicals from gas streams including industrial off-gases from steel and alloy mills; petroleum refineries, petrochemical complexes and gas processing facilities; syngas generated from any biomass resource (e.g. municipal solid waste, organic industrial waste, agricultural waste); and reformed biogas.

LanzaTech's unique process provides a sustainable pathway to produce platform chemicals that serve as building blocks to products that have become indispensable in our lives such as rubber, plastics, synthetic fibers and fuels.

The company's technology solutions mitigate carbon emissions from industry without adversely impacting food or land security. LanzaTech estimates that its products reduce greenhouse gas emissions by over 60% when compared to equivalent products derived from fossil fuels.

Process Scale-up and Commercialization: Beyond Demonstration

2008

Blue Scope
New Zealand
Pilot
(15,000 gal/yr)

2012

BaoSteel
China
Pre-commercial
(100,000 gal/yr)

2013

Shougang
China
Pre-commercial
(100,000 gal/yr)

2018-20

4X Commercial
(10 - 30M gal/yr)
Shougang, China '18
ArcelorMittal, Belgium '19
Indian Oil Co., India '19
Aemetis, USA '20
Swayana, South Africa '20

LanzaTech Alcohol to Jet Fuel Technology

Ethanol derived via LanzaTech's gas fermentation technology can be converted to drop-in jet fuel using technology developed in collaboration with the US Department of Energy's Pacific Northwest National Laboratory (PNNL). Detailed lifecycle analysis (LCA) has shown that the LanzaTech-PNNL process delivers jet fuel with at least 65% reduction of greenhouse gas emissions relative to conventional (petroleum) jet fuel.

With sponsorship from Virgin Atlantic and HSBC, LanzaTech successfully converted ethanol derived from the LanzaTech Shougang facility in China to 4,000 USG of jet fuel.

Chemicals

LanzaTech recognizes that a broad and diverse product portfolio that encompasses a wide range of high-value chemicals is the key to long-term, sustainable growth. While the LanzaTech microbe naturally produces ethanol and certain chemical co-products, with modifications to the microbe's genetic structure, a broader spectrum of new products is possible.

With this platform technology, LanzaTech has demonstrated that its unique fermentation process can produce 2,3 butanediol (BDO), 1,3 butadiene (BD), isopropanol, acetone, butanol, isoprene, methyl ethyl ketone (MEK), and numerous other high value chemicals. LanzaTech has collaborated with several global corporations to produce new pathways to some of the world's most useful chemicals.