

The Next Generation of Biomanufacturing

Michael Heltzen, CEO

exozymes' Safe Harbor

This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements, which are based on certain assumptions and describe the company's future plans, strategies and expectations, can generally be identified by the use of forward-looking terms such as "believe," "expect," "may," "will," "should," "would," "could," "seek," "intend," "plan," "goal," "project," "estimate," "anticipate," "strategy," "future," "likely" or other comparable terms, although not all forward-looking statements contain these identifying words. All statements other than statements of historical facts included in this presentation regarding the company's strategies, prospects, financial condition, operations, costs, plans and objectives are forward-looking statements. Actual results could differ materially for a variety of reasons. You should carefully consider the risks and uncertainties described in the "Risk Factors" section of eXoZymes' quarterly reports on Form 10-Q, annual reports on Form 10-K, and other documents filed by eXoZymes from time to time by the company with the Securities and Exchange Commission. These filings identify and address important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forwardlooking statements, and eXoZymes assumes no obligation and does not intend to update or revise these forwardlooking statements, whether as a result of new information, future events, or otherwise. eXoZymes does not give any assurance that it will achieve its expectations.

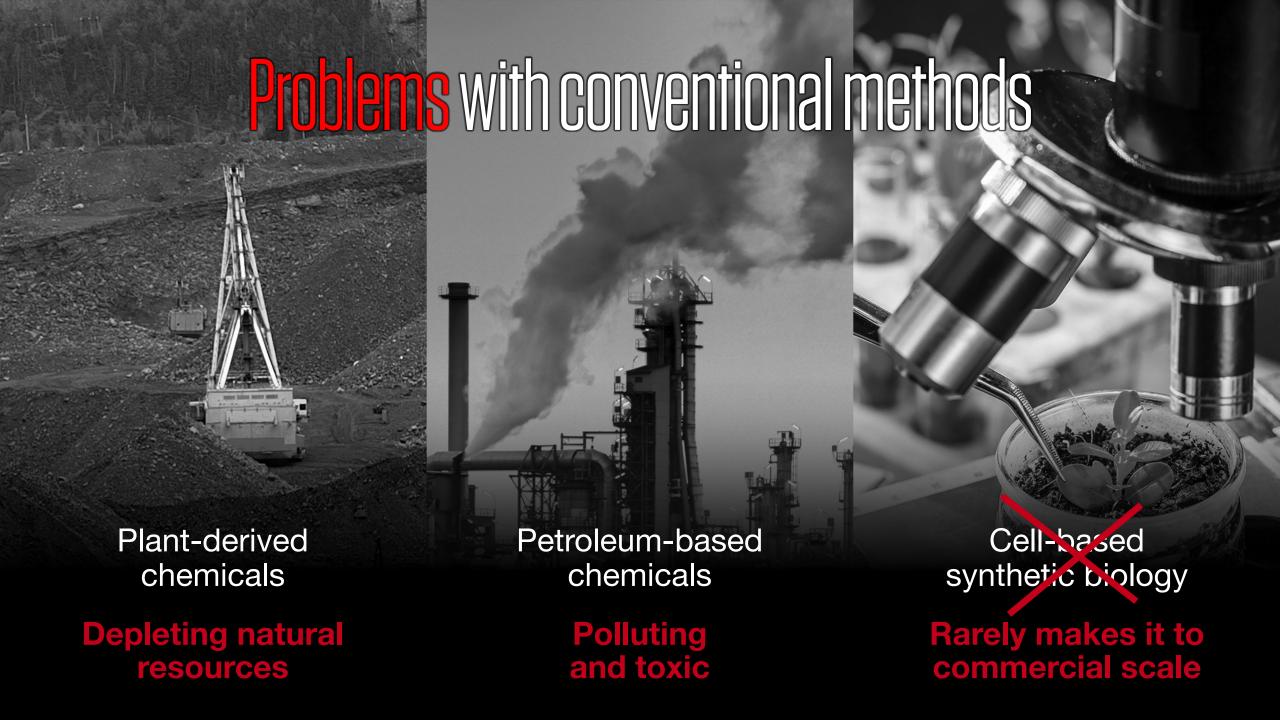


EXOZYMES' VISIONSolving a generational problem

A lack of sustainable access to chemicals, which form the basis of modern life

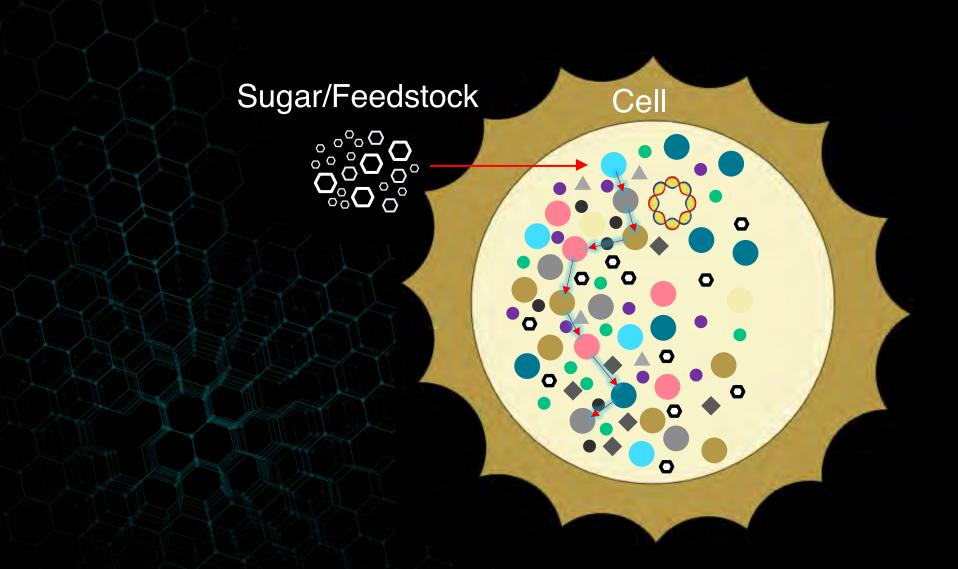








Old SynBio paradigm: How cells makes chemicals





Top reasons why SynBio/cells/fermentation is not ideal

Cells are, by evolution, designed to only do things that help the cell survive, grow, and replicate. They do not want to produce chemicals they do not need.

2

The cells often get sick or die from the toxic chemicals or the intermediates.
Resulting in scaling problems and low titer results.

3

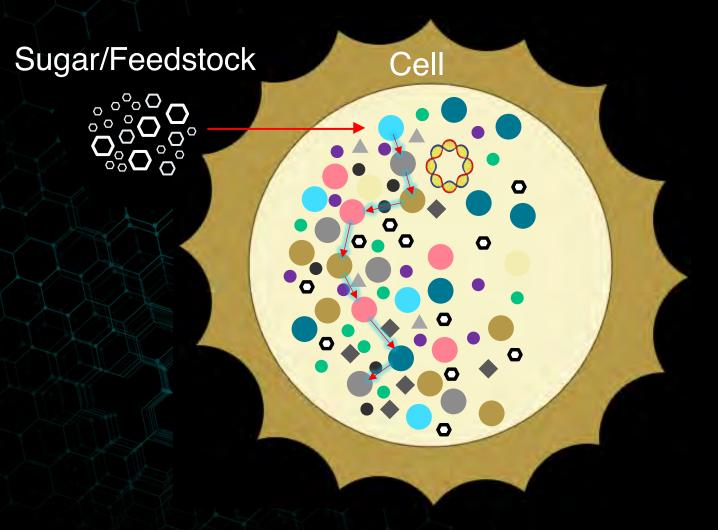
Most SynBio projects commercially die as the isolation cost to get the pure chemical, out of the cell slurry, is higher than the value of the chemical itself.



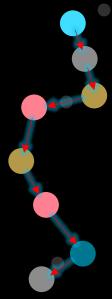
How are **exozymes** different to **synthetic biology**?



Old SynBio paradigm: How cells makes chemicals



Why not just liberate the Enzymatic Pathway from the cell?



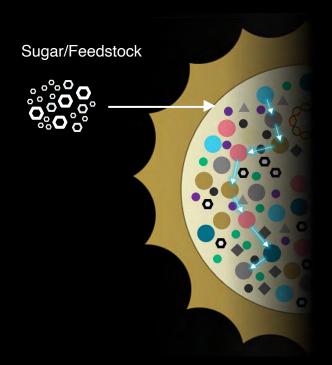
Former belief system:

Enzyme Pathways does not function outside of cells...



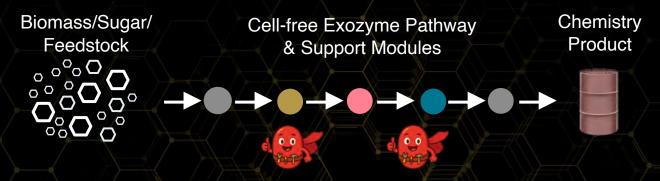
Cell-based enzymes vs exozyme biosolutions

cell-based synbio



exozyme biosolutions

- = exozymes (Al-optimized enzymes)
- + production pathways helper modules



- Engineering-level control
- Efficient use of feedstock
- High titer/yield
- Works and Scales like Chemistry

Enabling chemical and drug companies to turn natural resources into valuable chemicals sustainably and affordably, including new kinds of chemistry





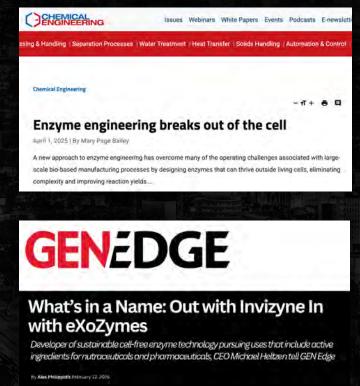
enzymes × AI* = exozymes

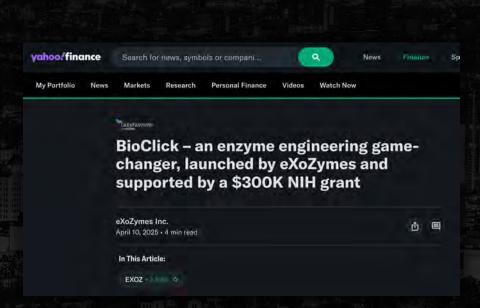
- * Proprietary enzyme knowledge and technology both wet-lab and dry-lab.
 - e.g. one of our secret sauces is how we generate enzyme training data.

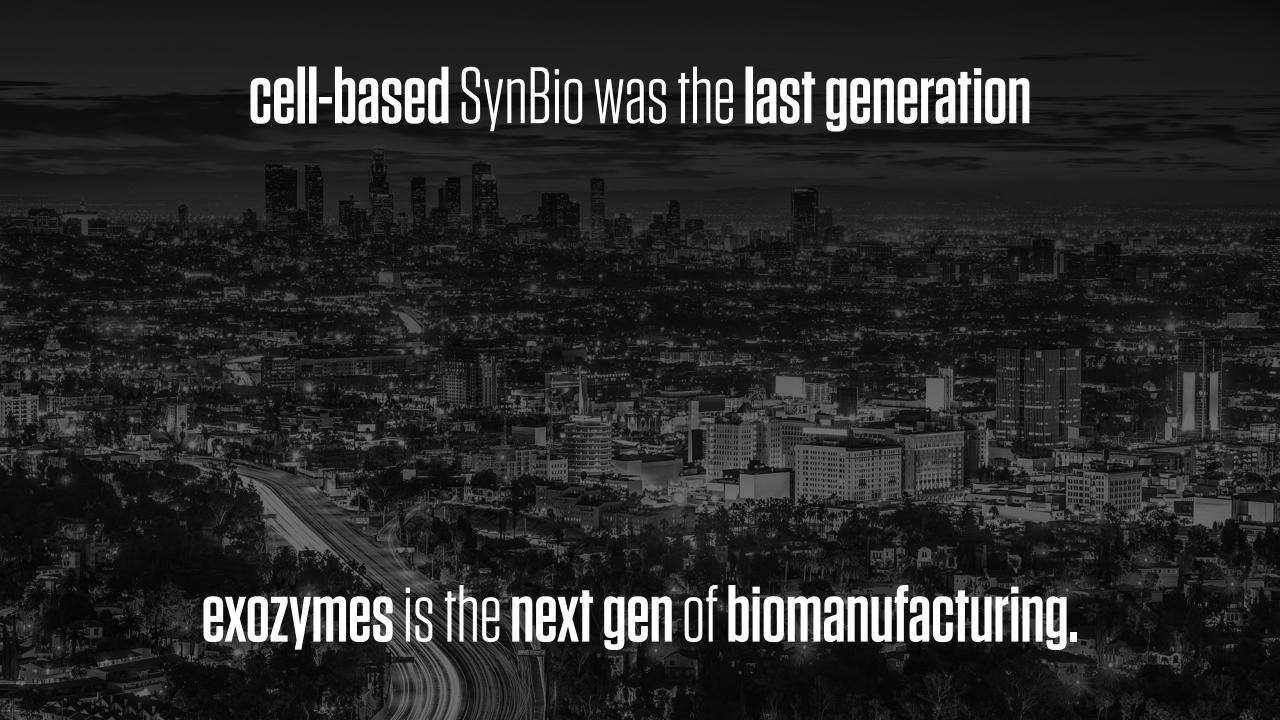


The market leader of cell-free exozymes biomanufacturing















An exozymes biosolution for NCT

www.NCTx.one



An exozyme biosolution for N-trans-Caffeoyltyramine — aka **NCT**



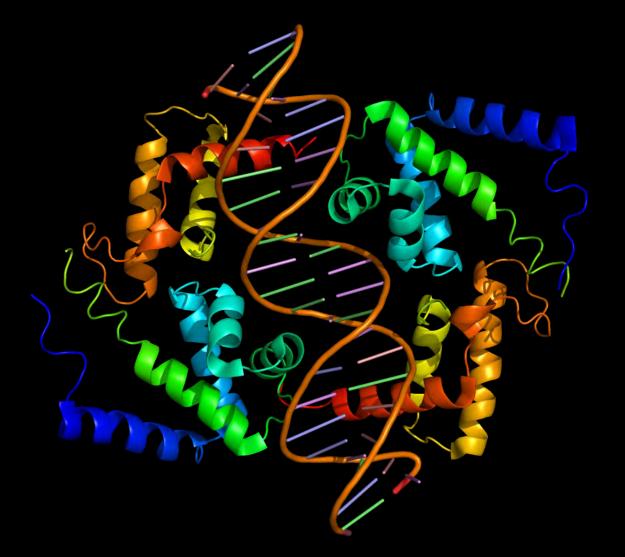
A Nutraceutical with Pharmaceutical Potential

A potent HNF4 α agonist, and candidate for fatty liver disease and gut health

www.NCTx.one



When **NCT** meets the HNF4a drug receptor it becomes a **potent agonist**



Agonist: A small molecule that, upon binding to a receptor, activates it and produces a biological response.



The **leading** pre-clinical model **experts** in the world, **say**...



▶ Cell Death Dis. 2021 Jun 11;12(6):603. doi: 10.1038/s41419-021-03862-x 🗷

Liver fat storage is controlled by HNF4 α through induction of lipophagy and is reversed by a potent HNF4 α agonist



▶ PLoS One. 2022 Apr 6;17(4):e0266066. doi: 10.1371/journal.pone.0266066 🗷

A potent HNF4α agonist reveals that HNF4α controls genes important in inflammatory bowel disease and Paneth cells

"NCT was completely nontoxic at the highest dose administered and so is a strong candidate for an NAFLD (fatty liver disease) therapeutic."

"These (studies and) data suggest that HNF4a could be a therapeutic target for Inflammatory bowel disease and that the (NCT) agonists that we have identified could be candidate therapeutics."



What is Non-Alcoholic Fatty Liver Disease (NAFLD)?

Size of problem

- Globally impacts over 30% of adults and growing fast
- Closely linked to obesity, gut health, maybe diabetes
- Very few good medical options
- A huge problem for the individual and society

NCT - The first of many natural products and new-to-nature analogs that can **now** be **biomanufactured**



As well as **extraordinary business** opportunities



Isobutanol used as Sustainable Aviation Fuel (SAF)

- A liquid fuel already used in commercial aviation, which reduces CO2 emissions by up to 80%
- A politically mandated hyper-growth market in both US and EU

Aviation Fuel Market:

\$7931

\$220B

2022

2030

Source: The International Air Transport
Association (IATA.org) and Acumen Research and Consulting



Approx \$14MM in US Gov grants enabling the development of our cell free platform technology



Cannabinoids Phase I SBIR	\$150k
Cannabinoids Phase II SBIR	\$2MM
Methylation Phase I SBIR	\$245k
Cell-Free Tools BioClick Chemistry	\$300k



Cofactors Phase II SBIR	\$2.3MM
Isobutanol BETO	\$2.1MM \$3.7MM
Alcohols ARPAe	\$1.6MM
Proteins ARPAe SBIR	\$500K



Proteins TCF	\$150k
Cell-Free Subcontract	\$50k



Protein Scaleup	\$805k
BioMade	



Background

Location: Pasadena, CA. 30 full-time, and a very large support system.

2019: UCLA spin-out, "Big Idea" status = MDB Capital backed.

2020/22: POC projects and technology platform development.

2023: Al/ML and state-of-the-art enzyme engineering capabilities.

2024: Commercial CEO, focus strategy, rebranding and Nasdaq IPO

2025: Applications and traction with "powered by exozymes" (NCT etc.)



DamienPerriman
cco

PaulOpgenorth, PhD
VP of Development

TylerKorman, PhD
VP of Research

Michael Heltzen CEO Fouad Nawaz VP of Finance

Karl, PhD
VP of Business Development

Lasse H.Görlitz
VP of Comms



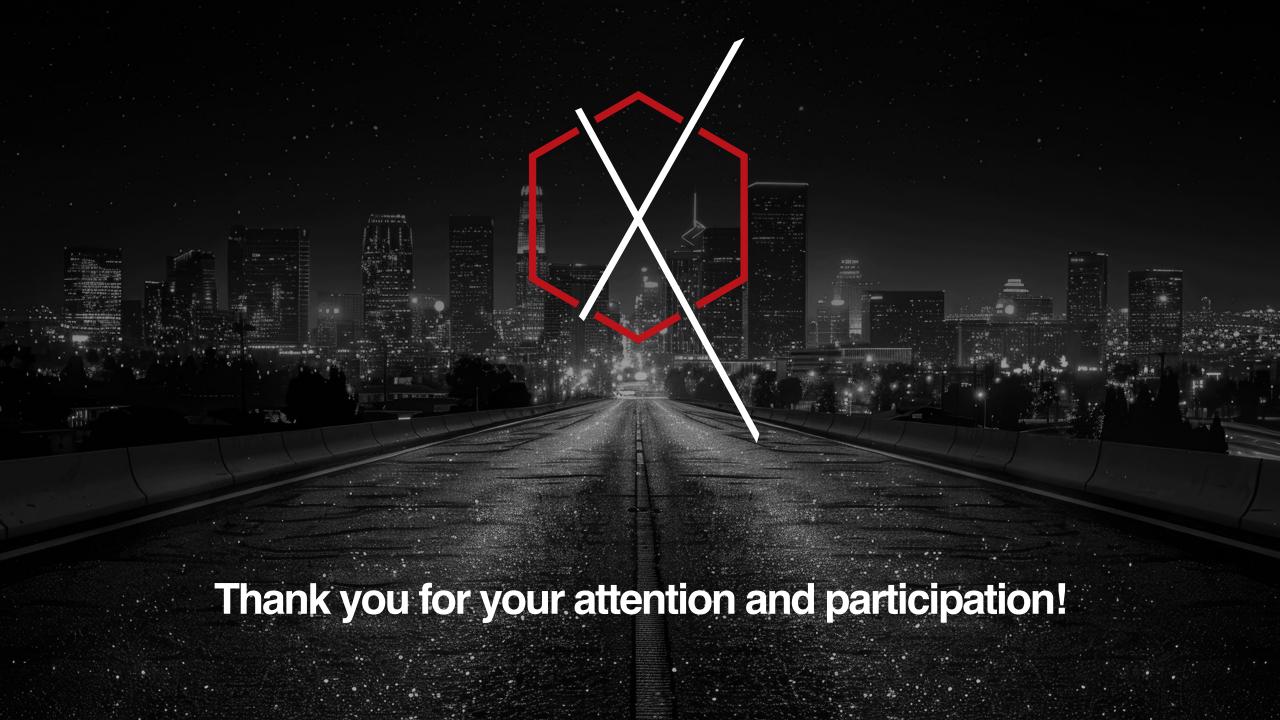
eXoZymes Inc. a platform-of-platforms company short term: kick-starting tech use via spin-outs and JVs, longer term: mostly sell and license exozymes technology





If you want to learn more as an investor

www.exozymes.com/exoz





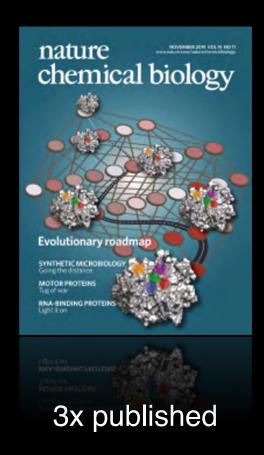


Financials

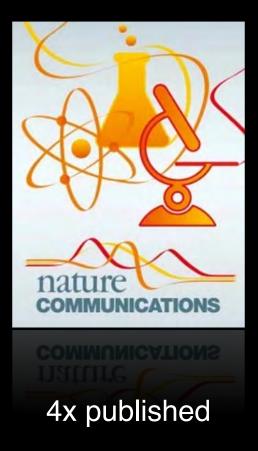
Please see exozymes.com/sec-filings for details



Recognized **leader** of **cell-free biomanufacturing** in **peer-reviewed** scientific **journals**







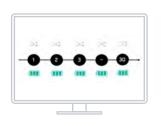


eXoZymes **R&D de-risking and speed-up** process



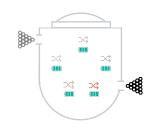
PARTNER & FUNDING

STEP 1
DESIGN PATHWAYS
TO TARGET
CHEMICAL



STEP 2

BUILD LAB SCALE WORKING PROTOTYPE



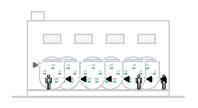
STEP 3

ENZYME OPTIMIZATION



STEP 4

DEVELOP PILOT
SCALE
PRODUCTION



COMMERCIALIZATION

Developing cell-free biomanufacturing solutions ready for commercialization



Business model leverages **IP** for proprietary processes, key enzymes, and novel chemicals

10+ patents and substantial trade secrets protecting

Patents & trade secrets Novel cell-free biomanufacturing **Advanced Al & Novel Enzymes R&D** platform

& exozymes

Novel & rare chemicals



Focus on **opportunities** and **markets** that create **value** for our **shareholders**

Potential Value Creation High Value, Clear Path to Market

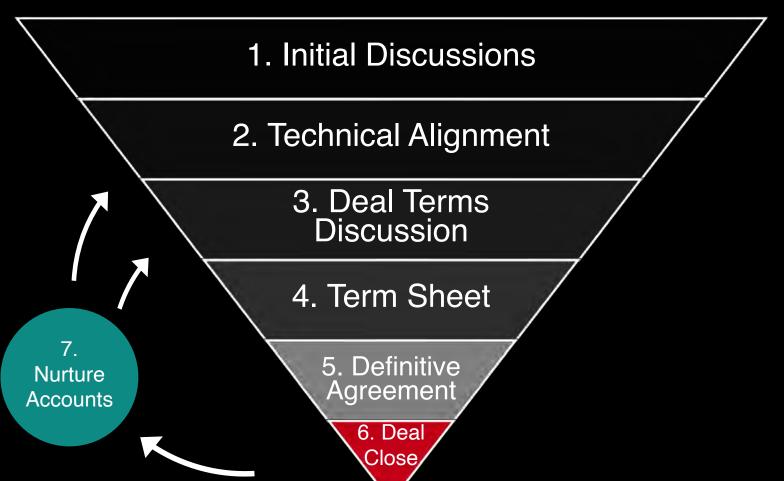
High Value, Difficult Path to Market

Low Value, Clear Path to Market Low Value,
Difficult Path to Market

Difficulty of Commercialization



Partnership deal funnel optimization



Key Considerations

- Discernment in deal selection
- Balanced funnel dynamics
- Continuous replenishment
- Efficient transition and progression
- Quality over quantity
- Strategic abandonment



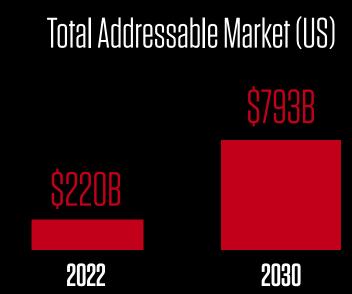
Next generation **biomanufacturing** for **drug discovery** and development

- Enables new and better drugs otherwise impossible to make
- Allows for the biochemical engineering and mass production of a new generation of complex drug molecules, by overcoming the limitations of cellular metabolism and first-generation synthetic biology
- Allows for chemical engineering level control (biocatalysis) at never seen before levels by using the best of biology and chemistry simultaneously



Isobutanol used as Sustainable Aviation Fuel (SAF)

- A liquid fuel already used in commercial aviation, which reduces CO2 emissions by up to 80%
- Comprises less than 0.1% of aviation fuels, but all airlines are looking for suppliers
- Healthy premiums/subsidies paid for SAF over fossil fuels
- A politically mandated hyper-growth market in both US and <u>EU</u>
- 70% of jet fuels at EU airports mandated to be SAF by 2050



Source: The International Air Transport Association (IATA.org) and Acumen Research and Consulting



Business model with **assymetric upside** potential

Limited Downside

- Foundational patents
- Capital light
- Government grants & partners cover cost

Unlimited Upside

- Unlimited markets
- Multiple revenue streams :
 - License fees
 - Royalties (1%— 8%)
 - Critical enzyme sales

High Impact on NPV

- Ability to disrupt multiple, multi-billion-dollar markets
- Value creation potential significant without the risk profile and cost of competing directly
- Potential to generate significant investor returns relative to capital requirement

By partnering, instead of trying to compete, we have multiple shots on goal in multiple markets