



Parliamentary and Scientific Committee

Panel Discussion

SynBio for Human Health

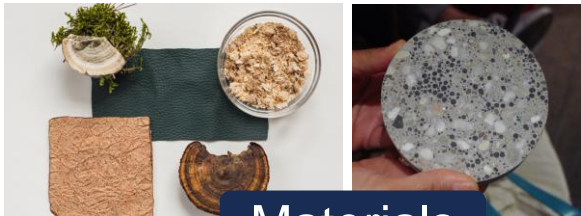
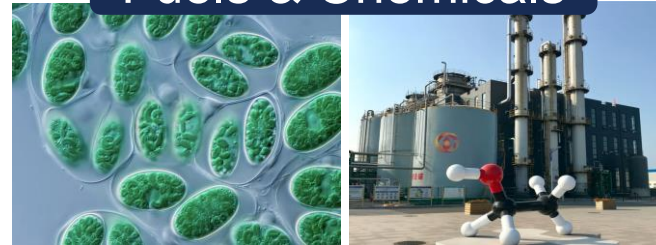
What is SynBio? The Next Industrial Revolution



Foods



Fuels & Chemicals



Materials



Medicine



The Global SynBio Opportunity

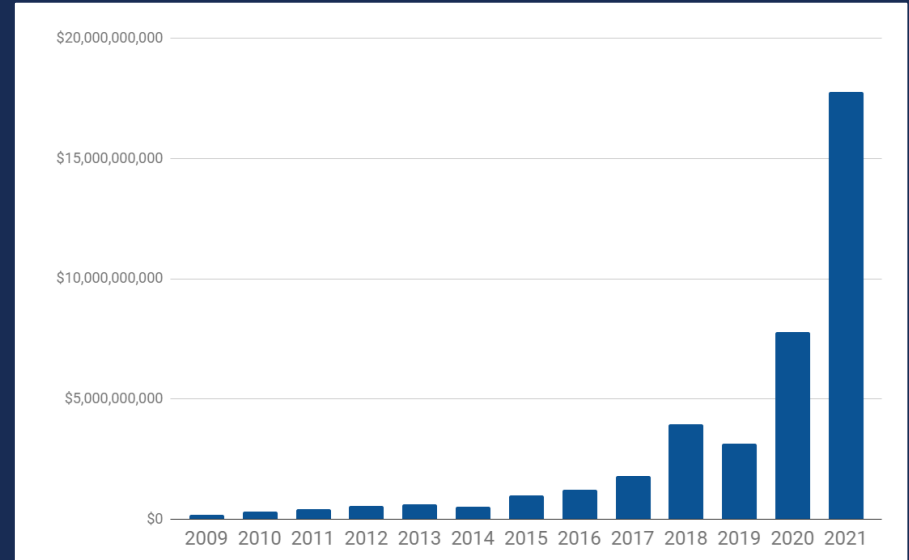
McKinsey
Global Institute

Special Report
May 2020

\$2T - \$4T

of annual direct economic potential globally in 2030-40 (significantly higher with downstream and secondary effects)

Innovators, businesses, and policy makers must act if we are to capture the benefits of the Bio Revolution, while engaging together in a sustained dialogue about how to use these innovations



*Global investment over last 10 years – \$18 Billion
in 2021*



*all physical inputs
could be made
with biology*



*of world's disease
burden could be
addressed*

Global Competitive Opportunity for the UK



*Executive Order on Advancing
Biotechnology and Biomanufacturing*



*City Hall to Launch \$20 Million Biotech
Hub at Brooklyn Navy Yard*



*Singapore becomes first country to
approve cultured meat*



*A global leader in advanced
clinical trials*



UK Research
and Innovation

Advanced
Research
+ Invention
Agency

ARIA



Department for
Science, Innovation
& Technology

*The UK's life science
innovation roadmap*

A Personal Impact



- FDA approves triple-combination therapy, Trikafta, for Cystic Fibrosis in 2019
- NHS begins prescribing Kaftrio in 2020
- But 20% of CF patients globally are still genetically ineligible - advanced therapies are needed
- CF is a genetically “easy” disease to treat - new therapeutic modalities are needed for more complex diseases

Kaftrio Day 1 - 18 November 2019



Thank You!

*Join the conversation at
SynBioBeta 2023: The Global Synthetic
Biology Conference
May 23rd - 25th at the
Marriott City Center in Oakland, CA*

Visit www.synbiobeta.com for more information