Agile BioFoundry

Partnering with industry to enable sustainable biomanufacturing of affordable fuels and chemicals

KEY CAPABILITIES

Available to industry for onboarding hosts and improving titers, rates, and yields

AUTOMATED RECOMMENDATION TOOL

Machine learning and probabilistic modeling techniques for guiding synthetic biology systematically

SAGE DNA EDITING TOOL

Broadly applicable toolkit to engineer microbes faster and easier

SCALE-UP

Multiple scales of integrated bioreactor cultivation equipment to translate your technology to industrial scale

PROTEOMICS AND METABOLOMICS

Both targeted & untargeted

BIOSENSORS

Responsive, tailorable sensor-reporters indicate the amount of a metabolite both non-invasively and in real time

We are currently leveraging these capabilities to develop:

- High titer, rate, and yield production of alkanes for sustainable aviation fuels
- Muconate
- 3-hydroxypropionic acid

PARTNER TESTIMONIALS

LYGOS

"The combination of . . . Agile BioFoundry's expertise, tools, and technologies have enabled us to further accelerate the strain engineering design, build, test, and learn cycle."

Andrew Conley
Lygos

VISOLIS
CARBON NEGATIVE MATERIALS

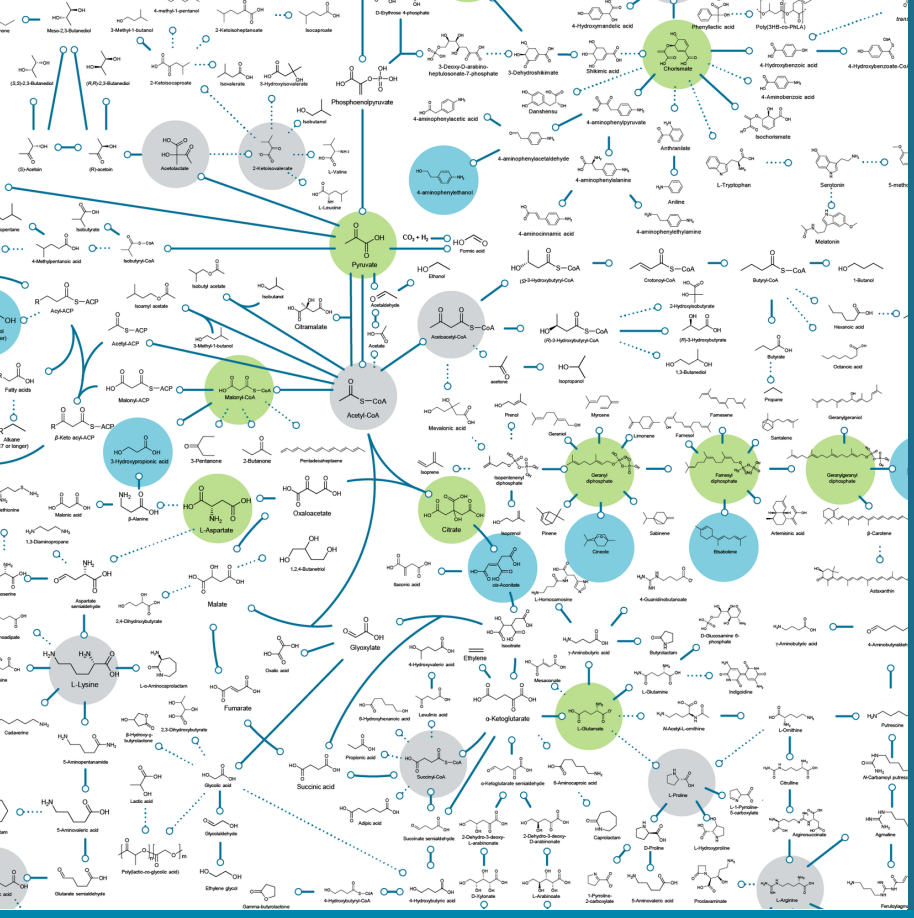
"Through this partnership, we were able to access these resources without having to build them from scratch in-house."

Deepak Dugar
Visolis

GEORGIA

"I wouldn't be able to develop a bioproduct on my own, but what I can do is talk to other scientists who have the skills and resources necessary to do this work that has both scientific merit and biotechnology applications."

Ellen Neidle
University of Georgia



Get where you want to go, faster.

Leverage millions of dollars of DOE infrastructure and expert researchers with deep experience working with industry to get innovative products to market faster, with higher return on investment.

- **Current ABF target molecule**
- **Current ABF beachhead molecule**
- **Potential beachhead molecule**

Map adapted by permission from Springer Nature Customer Service Centre GmbH: Nature, Nature Catalysis, A comprehensive metabolic map for production of bio-based chemicals, Lee, S.Y., et al., © 2019

Unlock the potential of non-model microbes

Non-model microbes offer desirable phenotypes, but lack foundational datasets and genetic tools required for rational strain development.

We specialize in rapidly developing tools and datasets to enable and enhance Design-Build-Test-Learn cycles for rational strain improvement.

Onboarded strains within the Agile BioFoundry include:

Aspergillus niger
Aspergillus pseudoterreus
Bacillus licheniformis
Clostridium ljungdahlii
Clostridium tyrobutyricum
Corynebacterium glutamicum
Cupriavidus necator
Lipomyces starkeyi
Pichia kudriazevii
Pseudomonas fluorescens
Pseudomonas putida
Rhodobacter sphaeroides
Rhodosporidium toruloides
Yarrowia lipolytica
Zymomonas mobilis

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