# Benchling

**CASE STUDY** 

# Integrating the Custom Solutions of a Technology Powerhouse



#### **GOAL**

# Integrating the Custom Solutions of a Technology Powerhouse

Zymergen is an industrial biotechnology company that engineers microbes to produce high-value commercial molecules. The company employs many custom software systems and algorithms that allow their scientists to push the boundaries of strain engineering.

#### **CHALLENGES**

- With many siloed pieces of custom software, it was difficult for scientists to enter and extract data.
- Scientists in the strain optimization and fermentation & production teams couldn't share complete experimental context.
- Zymergen's disparate systems couldn't scale with their rapidly growing company.

#### **KEY BENEFITS**

#### Integration Innovation

Zymergen uses Benchling as a central platform to unite their custom tools. Proprietary algorithms, instruments, and niche software all integrate into Benchling.

## Complete Experiment Histories

From every plasmid to every fermentation run, Zymergen's scientists view and share a complete, stepby-step data trail.

## Organic Growth and Onboarding

Since starting with 10
Benchling users, Zymergen's deployment has grown to over 140 users, with ongoing onboarding handled completely internally.



"Benchling has been a model partner for us as we have grown our business. We would highly recommend Benchling to any growing biotechnology or life science firm.



Jed Dean, Cofounder



# Benchling Solutions

## Unifying custom tools on a central informatics platform

- Zymergen integrates custom sequence analysis algorithms with Benchling, eliminating data import/ export.
- By integrating automated data capture across plate groups, Zymergen populates notebook entries with data in real-time.
- With centralized functional data, analysis, and records, the speed with which Zymergen generates decision-quality results is a competitive advantage.

### Collaborating seamlessly across teams

- Zymergen scientists share and collaborate on the same up-to-date plasmids.
- Protocols and templatized Notebook entries enforce SOPs across the Zymergen organization.
- Production teams review upstream strain optimization teams' work to inform their own processes.

### Scaling and optimizing processes over time

- Given how intuitive
   Benchling is, Zymergen
   has been able to handle all
   software training internally.
- Rich protocol versioning empowers Zymergen to optimize their processes by comparing results across conditions.
- As the company has scaled, more of their clients share classified data. Benchling's permissions features intelligently restrict data access.



