Case Study

Pioneering CRISPR-based microbial gene therapy with a modern, scalable R&D platform

SNIPR Biome

SNIPRBIOME A CRISPR COMPANY + Benchling

Bringing safe and effective CRISPR-based therapeutics to market faster through an efficient, standardized data foundation

SNIPR Biome is a clinical stage company pioneering the discovery and development of CRISPR-based microbial gene therapy. Since new therapeutics have changed the way difficult-to-treat infections are handled, SNIPR Biome is using CRISPR-based therapeutics to target disease-causing microbes and address complex disease pathways.

The company is built on two key technology platforms. Their first technological advancement is the precision killing of bacteria using CRISPR to solve the global antimicrobial resistance crisis. Here, they've seen early success, with their first development candidate SNIPR001, targeting E. coli, which is now in clinical trials.

The second technological advancement is using engineered bacteria for in situ production of therapeutic payloads (e.g., antibodies, peptides, hormones, enzymatic pathways) to the human gut to treat immunological and metabolic disorders.

Soon after their inception in 2017, SNIPR Biome began using Benchling to power a data foundation that could help them bring safe and effective candidates to market faster.

Company Profile

Industry
Biopharma

Corporate HQ
Denmark

↑ Improved scientist and IT efficiency

with powerful data capture and management that centralizes and standardizes information

↑ Increased probability of success

by moving forward more promising candidates downstream faster

↑ Accelerated time to milestone

by securing funding and establishing partnerships with global pharma companies such as Novo Nordisk

Challenges

Seeking infrastructure that's purpose-built for R&D

SNIPR Biome briefly relied on spreadsheets, powerpoints, and molecular biology point solutions, causing data management challenges and IT headaches.

Improving data capture and organization

Difficult to establish organizational repositories of biomolecules with a bio-aware model prevented scientists from capturing, designing, and querying biomolecules with full context across experiments or projects.

Increasing program velocity

The absence of bio-aware tools put scientists at risk of missing opportunities to focus on benchwork, or in vitro and in vivo experimentation, negatively impacting throughput and time to milestone.

Outcomes

Improved scientist and IT efficiency

Benchling enables SNIPR Biome to achieve a modern, flexible R&D ecosystem that drastically improves data quality and organization. The use of templates and sub-templates for experiments and protocols has led to better data standardization, increasing scientist efficiency by saving time in writing and reviewing information. Along with powerful data management, Benchling empowers a connected, integrated lab, reducing the usage of third party software as molecular biology tools.

Since using Benchling, they've monitored for the number of entries with data properly collected and peer reviewed, and they've seen reduction in usage of third party molecular biology tools.

Increased probability of success

SNIPR Biome is using Benchling to refine their process for bringing safe and effective candidates to market. With their research on an end-to-end platform that powers better traceability, collaboration and handoffs between teams are seamless. Structured result tables and reduced manual data entry allow scientists to move more quickly and identify problems faster. Through their improved process with Benchling, SNIPR Biome aims to have two development candidates approved and ready for development in the next year.

Accelerated time to milestone

As the first company to dose humans with CRISPR therapeutic, SNIPR Biome is no stranger to success. Having raised $50M in one of the largest Series A's in Europe, the company is continuing on its way to successfully advance CRISPR-based microbiome drugs to human clinical trials. To continue advancing the microbial gene therapy approach, SNIPR Biome has extended its research collaboration with Novo Nordisk.

Benchling has been a key partner for SNIPR Biome from the early days, and is now committed to support SNIPR Biome in its aim of establishing preclinical proof of concept for novel targets within metabolic disease.

"IP is one of SNIPR Biome's strongest areas. We are highly focused on documenting all our science and our results, as we are in a very competitive research area. Benchling helps fulfill our IP requirements as all the data is well collected and date stamped."

Ana de Santiago Torio
Team Lead
Laboratory Management

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