



Case Study

Harnessing AI to
create next-generation
medicines

Absci





Unlock the potential of groundbreaking AI models to advance the development of next-generation therapeutic proteins by making it easier to capture and manage the quality, quantity, and types of data needed for AI to succeed

Absci is a drug and target discovery company harnessing deep learning AI and synthetic biology to expand the therapeutic potential of proteins. Through its Integrated Drug Creation™ Platform, Absci is able to identify novel drug targets, discover optimal biotherapeutic candidates, and generate the cell lines to manufacture them in a single efficient process. Biotech and pharma innovators partner with Absci to create the next generation of protein-based drugs.

Company Profile

Number of Employees

51-250

Industry

Biotechnology
Research

Location

Vancouver,
Washington, US

Absci reported:

Improved quality
of data capture

Increased throughput across
their screening funnel

Improved data accessibility
and interoperability
between teams

“It’s an enormous benefit transitioning to Benchling because of the wins in operational efficiency. We’re seeing end to end times across our screening funnel that are substantially faster, and we’re seeing significant improvements on accuracy and precision.”



Jonathan Eads
VP of Informatics

Challenges addressed

Risk of errors stemming from handoffs between teams

The success or failure of Absci's work depends on coordination across teams. Prior to Benchling, Absci was managing sample handoffs in spreadsheets, which had the risk of error and lacked sophisticated collaboration features, making it difficult to share and reference data.

Lacked a way to ensure data quality and standardization

The performance of AI models depends on the quality of the training data. Prior to Benchling, Absci occasionally experienced data-related deviations such as duplicate or incomplete datasets and risked copy/paste errors.

Data interoperability was not supported

Lacking a universally accessible tool for data connectivity made it difficult for stakeholders to drive organizational and scientific decisions. Adopting Benchling allowed Absci to connect outputs across disparate platforms to maximize the utility of the data and make timely decisions.

Outcomes delivered

Dramatic improvements in operational efficiency

Absci now has a formal request handoff data model that tracks sample handoffs and makes it possible to manage data in a way that is machine readable. In addition, this newfound coordination and visibility is resulting in substantially improved operational efficiency in the laboratory.

Platform approach leads to increased connectivity with flexible integration across systems

Benchling's unique data model flexibility, API, and data warehouse capabilities allow Absci to develop critical applications in the Benchling platform that enable seamless integration with its distributed data model and application ecosystem. Other platforms Absci considered did not have comparable modern API offerings that met its needs.

Save time on data management to enable scientists to focus on advancing research

Absci uses Benchling's custom registry schema to connect disparate data types, manage metadata associations, store experiment outcomes, and link to large quantities of raw data that they use to train AI models. This allows Absci to save time and focus on its core scientific and machine learning innovations rather than managing data.