



Case Study

Gilead partners
with Benchling
to improve large
molecule bioprocess
development

Gilead



“At Gilead, we’re committed to creating a healthier world for everyone by discovering, developing and delivering medicines for life-threatening diseases. This work requires managing highly complex, multi-dimensional data and necessitates technology partners that can support the scale and complexity of the data created by high-throughput biology. We selected Benchling as a partner because it’s built for biology. By capturing structured data in Benchling, our scientists are empowered to ask challenging questions and uncover new insights.”



Peter Huang
Executive Director, Pharmaceutical
Development & Manufacturing
Information Systems





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Gilead is a global biopharmaceutical company that has pursued and achieved breakthroughs in medicine for more than three decades. The company is committed to advancing innovative medicines to prevent and treat life-threatening diseases, including HIV, viral hepatitis and cancer. Gilead’s Biologics team is focused on supporting clinical manufacturing and process development to advance the development of Gilead’s novel therapies.

Business goal with Benchling

Improve scientist productivity, collaboration, and access to data insights in order to increase efficiency and predictability of Gilead’s large molecule process development.

Company Profile

Number of Employees
10,000 – 50,000

Industry
Biopharmaceutical

Location
Foster City, CA

Gilead reported:

2x

improvement in ease of data sharing within and across teams

63%

reduction in time spent on data capture, search, and collection

>2x

improvement in ease of study review and forecast approval

75%

improvement in ability to track sample and experimental data

Challenges addressed

Multiple systems and databases managed through a mixture of e-mail, Excel, and an on-premise electronic lab notebook (ELN) resulted in data silos within and across teams

Data capture challenges from existing solutions required time-consuming manual handoffs between teams

Aggregating data and conducting trend analysis was difficult and time consuming to carry out, leading to less data-driven decision making

Outcomes delivered

Data unification on a centralized platform paves the way for more efficient collaboration

Before Benchling, Gilead process development teams working on cell line development, product purification, and formulations managed samples and sample data separately. This presented challenges in easy end-to-end sample traceability and for analytical teams to aggregate data across teams and rapidly iterate. Scientists can now find all data and metadata collected across a sample's entire lifetime, not just within the brief time it was processed within their own team.

Scientist productivity increases with standardized data capture and intuitive interface

With Benchling, the Biologic Development team has standardized what, when, and how data is captured across teams. To optimize workflow efficiency, Biologics scientists at Gilead partnered with Benchling to develop standardized entry templates to capture analytical results. Status tracking for analytical assay requests are now automated so cell line development, purification, and formulation teams can immediately see results from assays as soon as they're available.

Clear insights enable more data-driven decision making

As a process development group within Gilead, the Biologics team is responsible for continually monitoring and gaining insights to improve its processes. Benchling makes it easier for Gilead scientists to aggregate data and spot trends such as batch deviations from controls or capture an overview of how far different molecules are progressing through the full workflow. These insights help inform decisions such as how to optimize parameters or adjust protocols. Scientists also leverage Benchling's audit trails and built-in review processes to support consistency.

These results were gathered through a Business Value study completed in partnership with the Gilead Oceanside team. Eight Gilead participants submitted feedback via a "GetFeedback" survey tool. The responses were aggregated to determine these results. The results were reviewed and approved by Shivani Gaur and Frantz Gabeau in February 2021.