Increase R&D throughput and accuracy with a flexible, open data platform
Still relying on USB drives to transfer instrument data?

Have trouble searching for data across teams?

With Benchling Connect, companies can increase their R&D throughput and drive better decisions with powerful instrument connectivity and more accurate, end-to-end scientific data management. This flexible platform is built using a unique open source approach in support of FAIR best practices.

Learn more about...

- Benchling Connect product overview 2
- Why the industry needs a new solution for instrument connectivity and data management 4
- What Benchling Connect can do for your organization 7
- How Benchling Connect works 8
- What’s included with Benchling Connect 9
- Benchling Scientific and Technical Accelerators 10
- Implementation by Benchling Professional Services 11
- Customer Success 12
- How to get a demo or more information 13
Get to know
Benchling Connect

Who is it for?
Benchling Connect is for any biopharmaceutical R&D team that needs a solution to capture and manage instrument data.

What can Benchling Connect do for my R&D organization?
- Increase R&D throughput and accuracy
- Drive better decisions and deeper insights
- Accelerate your data strategy

Key Capabilities
- API and file-based instrument integrations
- Harmonize instrument data and associate it with scientific metadata
- Browse and search instrument & other R&D data
- SQL data warehouse access

Learn more
“Addressing the chronic data lifecycle challenges with lab instruments requires a new approach. Proprietary data formats and software solutions that lock customers into a small set of vendors aren’t the answer — an open source approach is.

We’re certainly not the first to work on the complex problem of instrument connectivity, but we’re confident that our approach, which drives open industry standards and provides ease of integration with native instrument connectivity, will drive the real, material impact on data quality and R&D throughput that the industry needs.”

Shawna Wolverton
Chief Product Officer, Benchling
Connect, manage, and analyze instrument data at scale

Every company conducting scientific R&D, large or small, faces a similar set of challenges when incorporating data generated from their scientific workflows. Teams require accurate, usable instrument data that’s easy to search, analyze, store, and associate with experimental context — especially with the growth of AI and ML in the industry. As these teams scale, they use a growing collection of instruments and tools with proprietary data formats — liquid chromatography machines, plate readers, spectrophotometers to name a few — necessitating custom integration and ongoing data management. These instruments produce a massive amount of data, a key reason that biotech data doubles every seven months.

The proliferation of these instruments, their proprietary data formats, and the data generated creates connectivity and data management hurdles such as:

<table>
<thead>
<tr>
<th>Manual data transfers</th>
<th>Data silos</th>
<th>Broken data lineage and tracking</th>
<th>Missing scientific context and metadata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inability to use data at scale</td>
<td>Non-compliant data</td>
<td>Burden on IT and automation teams</td>
<td></td>
</tr>
</tbody>
</table>

As a result, the biotech industry is stuck in a cycle of repeatedly trying to solve critical data lifecycle problems.

With Benchling Connect, companies can increase their R&D throughput and drive better decisions with powerful instrument connectivity and more accurate, end-to-end scientific data management. This flexible platform is built using a unique open source approach in support of FAIR best practices.
How is Benchling different from other lab connectivity or data management software?

**Native instrument connectivity**
Connect natively integrates to Benchling with instrument data sources for scientific workflows. This provides customers with a simple, interactive scientist-friendly experience, compared to other middleware-based integrations. By eliminating the need to jump across different UIs or manage different logins across multiple systems, customers can reduce IT and vendor complexity.

**Built-in scientific context and metadata**
Because Benchling already has the scientific metadata (e.g., sample information) that scientists input, the linking with ingested instrument data is automatic. Other third party software vendors require customers to do significant integration work to achieve this.

**Open source industry standard / data converters preventing vendor lock-in and providing future proofing**
Instead of a proprietary data model that third party software vendors rely on, we harmonize instrument data into an open industry standard, Allotrope Simple Model (ASM). This approach provides customer transparency and prevents vendor lock-in of customer data. We also took the unique step to open source the data converter codes that map instrument output to ASM data models. This open source library of instrument data converters is published on GitHub and applies FAIR best practices.

**Flexibility to support all types of data strategies (data strategy-agnostic)**
Some customers want us to be their data lake. Some customers, particularly large organizations, are investing in their own public cloud-based data lake. Unlike other third party software vendors that force a data strategy on customers, Benchling Connect is data strategy-agnostic, so customers can quickly connect to the platform, regardless of their preferred data lake or infrastructure approach.
“The proliferation of data formats across different lab instruments and different teams has been a major pain point. It requires lab IT to solve the same problems with data conversion again and again, ultimately slowing down process development and biomanufacturing.

The approach Benchling is taking helps solve this pervasive challenge and makes the integrations more adaptable for future use cases.”

Mark Southern
Senior Informatics Engineer
Resilience
What Benchling Connect can do for your organization

**Increase R&D throughput and accuracy**

With Benchling Connect, R&D organizations can automate time-consuming, manual data collection processes. Experimental data and metadata is centralized on an open platform.

As a result, labs can increase automation and instrument connectivity in support of critical R&D milestones.

**Drive better decisions and deeper insights**

R&D teams can house their instrument data and tech stack on a single platform instead of having it fragmented across multiple point solutions.

Consolidating experimental data and metadata using open source standards enables teams to prevent data silos and foster greater collaboration within and across R&D programs.

**Accelerate your data strategy**

Benchling Connect is built on open data standards, which are future-proof and eliminate vendor lock-in.

R&D organizations have access to open source instrument data converters that support flexible use case adaptations, and robust APIs for connecting to data lakes and warehouses.

This first-of-its-kind approach is designed to help leaders deliver sustainable and scalable data strategies and strengthen their digital data foundation (e.g., to support future AI or ML initiatives).
How Benchling Connect works

1. Capture instrument data using a library of instrument adapters*
2. Standardize, enrich, and drive adoption of instrument data models
3. Unify by integrating with analytics and AI/ML

- Analytical instruments
- Cell culture systems
- Desktop instruments
- Robotics/automation systems
- Next generation sequencers

Raw data → Data converters convert data into ASM → Enrichment with metadata via Benchling

R&D needs:
- Automated result capture
- Application-agnostic scientific analysis
- AI/ML-based cross program insights

IT needs:
- Downstream integration
- Context-driven searchability
- Easy accessibility and provenance

* You can reach out to your Benchling Account Executive or Customer Success Manager for a more detailed roadmap.
## What’s included with Benchling Connect

### Modern Open Platform
- **Access Controls**
- **Unified Data Model**
- **System-Wide Search**
- **Codeless Configuration**
- **Best-in-Class Security**

### Instrument Connectivity
12 adapters over 7 categories, including a bi-directional file watcher

### Data Management
- **Automated Runs**
- **Data Warehouse\n** SQL Access
- **Instrument Data Harmonization and Storage**
- **Browse and Search**

### Technical Accelerators
- **Integration Architecture Diagrams**
- **Benchling Expert Recommendations**
- **Step-by-Step Details**
- **Configuration Quick Start**

### Scientific Accelerators
- **Antibody and Protein Bioprocess**
- **Microbial Strains Bioprocess**

### Available Services

#### Professional Services
A full range of implementation services to support companies of any size, from startups to global enterprises. [Learn more here.](#)

#### Success Packages
Every Benchling Connect customer receives foundational success services, such as product support, Help Center, and Benchling Learning Labs, as part of their license. Premier Success Packages are available to extend the level of service and engagement your organization may prefer. [Learn more here.](#)
We have built a set of Benchling Accelerators based on our collective experience with 1200+ customers and the deep scientific and informatics expertise we have across our Field team. They allow you to kickstart your implementation from a best practice foundation, rather than a blank page.

Scientific Accelerators, a library of best practices aligned to your scientific area, are included with sale of any Benchling product.

Technical Accelerators, a library of best practice architectures for integrations and custom scripts run on Benchling, are available open source at docs.benchling.com.

Technical Accelerators for Benchling Connect include common NGS integrations and data lake integrations.

<table>
<thead>
<tr>
<th>Available Connect Scientific Accelerators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibody and Protein Bioprocess</td>
</tr>
<tr>
<td>Microbial Strains Bioprocess</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What’s in a Technical Accelerator?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration Architecture Diagrams</td>
</tr>
<tr>
<td>Step-by-Step Details</td>
</tr>
<tr>
<td>Benchling Expert Recommendations</td>
</tr>
<tr>
<td>Configuration Quick Start</td>
</tr>
</tbody>
</table>
Implementation by Benchling’s Professional Services

Benchling’s Professional Services team consists of scientifically-trained experts who will understand your R&D and have run thousands of successful implementations for our customers. These range from early startups all the way to the world’s largest global enterprises. Professional Services team members work closely with all of our customers to fully understand their R&D requirements and then scope the appropriate implementation work.

Our Professional Services team will serve as project managers to ensure steady progress towards a successful implementation. While each project is tailored to your specific needs, these are some of the typical activities in each phase of implementation.

**Kickoff and planning**
- Pre-project questionnaire
- Align on project scope
- Confirm R&Rs
- Detailed project plan
- Discuss test and training plans
- Set up governance structures
- Initial design workshops
- Access to training content
- Policies and permission setup

**Configuration, training, and initial user testing**
- Review and understand current process by team
- Configure Benchling to support each team
- Review configurations, capture feedback, update data models and configurations
- Layer in application specific trainings (train the trainer)
- Prepare for UAT

**Test and launch**
- Complete training delivery
- Execute UAT
- Address Issues
- Plan for post go-live updates
- Execute launch plan
- Launch support
- Celebrate!

Learn more about our Enterprise Implementation Methodology
Customer Success with Benchling Connect

Benchling’s Customer Success team helps ensure our customers realize continual value from their Benchling implementations. Our Customer Success Managers take a proactive approach with continual assessment, utilization monitoring, and routine communication.

Every Benchling Connect customer receives our foundational Customer Success Program as part of their product license. This entitles you to product support, self-serve Help Center, access to Benchling Learning Labs, and periodic check-ins with our Customer Success team. You can also select one of our Premier Success Packages which extend the level of support with faster response times, optimization services, customized trainings, and a named Technical Account Manager and Customer Success Manager.

Learn more with our Customer Success Guide

The Benchling R&D Cloud is trusted by leading life science companies
Still exploring R&D software options?

Reach out for an initial call to learn more about the Benchling R&D Cloud and how our Customer Success team can help drive amazing outcomes for your R&D team.

Already a Benchling customer?

Reach out to your Account Executive and Customer Success team to explore Success Packages that may be right for your team.

Use our self-serve Help Center or Support Form to get your questions answered quickly by our Support team.