4 Reasons for Growing Biotechs to Adopt a Cloud R&D Data Platform Now

Benchling

How a robust informatics solution will support your business today and help you scale tomorrow.

A New Approach to Scaling

In this whitepaper, we'll cover four key areas where a cloud R&D informatics solution can help your biotech business innovate today—and ensure that your data, teams, and processes are prepared to scale tomorrow.

Data Capture:

Find the data you need

Sample Tracking

Save time and resources

Collaborative Project Management

Work together as a team

Streamlined Processes and Systems

Future-proof your business

Introduction

It's an exciting time to be an innovator in life sciences R&D. The opportunities for transformative impacts on human health, agriculture, materials, and energy are truly endless. But with innovation comes substantial barriers and competition. These fields are moving faster than ever before. Early-stage biotech companies may have promising ideas and groundbreaking science already in progress, but to bring those ideas to market, it's mission-critical for them to manage complex data and processes with speed and accuracy.

No matter the exact stage of your company's growth, you're likely seeking informatics tools that will work for you right now. But even as a young company, you know that the work you do today is not just for today. Your charter is to grow and scale for the future. To walk the balance of building today and scaling tomorrow, you must set your organization up for long-term success—whether that's profitability, acquisition, or IPO.

Scaling from the start

What does growth really look like in biotech? In broad strokes, it might mean securing funding for your ideas and hiring more scientists to expand on those ideas. It could mean licensing part of the technology you've developed to a larger company, thus enabling enough stability to continue your research. But no matter the specific circumstances, growth has a number of tough challenges that come along with it.

Almost universally, growth means grappling with more and more data, more people, and managing more projects with greater complexity. Scaling people and projects means needing better standardization of data generation and collection as well as better communication and collaboration between scientists and teams. It means needing a reliable way to see, understand, and share your data—from both a bird's-eye view and a contextualized, granular view—so that every decision you make is data-driven and you're always able to clearly, concisely, and completely articulate your potential to the outside world.

These aren't easy tasks. And they're made more difficult without a robust, unified cloud informatics platform. That's because even if isolated or generic solutions work today, such as standalone Electronic Lab Notebook (ELN) software or Excel spreadsheets, they simply cannot be counted on to continue to function as you grow. Without connected, built-for-biotech systems, it will become harder and harder to keep up with the speed of your own innovation. Proactively implementing the infrastructure to support the growth you envision will not only prepare you for a complex, fast-paced future, but also help you fast-track the future you want to see. What's more; if you don't prepare today, you'll sentence your teams and innovations to a constant state of playing catch up.

"If you're expecting to succeed at all, you should expect a lot of data quickly. It's much more difficult to go back when you already have a vast amount of data. If you look at any experienced entrepreneur, many of them build systems early with the growth process in mind."

Max Rye
Chief Strategist

TurtleTree Labs

Data Capture

Find the data you need

The more experiments you perform, the more data you generate. It's a reality for the biotech industry. Yet that data is only truly useful if it is collected and documented in a consistent manner each time an experiment is performed. If there is any confusion about the exact details of what occurred, or if a critical piece of information is missing, it's difficult to make any decisions—or worse, your decisions are based on incomplete or inaccurate insights. For this same reason, all data needs context. Good data never exists in a vacuum; it is only useful if you can find it, aggregate it with all other related data, and glean insights that fuel your mission.

These nuances are intrinsic to biotech data, and the challenges surrounding them only compound as you scale. Having consistently recorded, easily-findable data within increasingly complex, interrelated processes means you'll be able to design and reproduce experiments more quickly and precisely, share accurate insights with potential partners, effectively track overall progress, and set realistic goals.

"While I think that yes, scale is important — flexibility is even more so. Flexibility and scale go hand in hand, and I think that's something that's incredibly valuable as organizations experiment early on."

Aaron Friedman
Principal Startup Solutions Architect
Healthcare and Life Sciences, Amazon Web Services

Enterprise Security

Benchling's IT services are automated and compartmentalized to limit the security risk of any single component. The company regularly tests, reviews, and monitors each step of its workflows, building detection and defense-in-depth into each of its IT services.

On paper and Excel, for instance, it's easy for actions to be recorded inconsistently, with key pieces of information mislabeled or omitted. Plus, because each of these solutions, including an ELN, is completely disconnected from other data or software systems you use, it can be difficult to get data in and out. Manual entry is tedious and error-prone; so is downloading data from one system and converting it into a new format for further analysis in another.

Inconsistency in data or having data in different places can create big problems, from daily frustrations to large roadblocks. Comparing results across experiments or across time can be extremely difficult, and without easy access to a certain piece of information, an entire experiment could be compromised, forcing scientists to unnecessarily repeat their work

The new solution

If you invest in a modern, unified cloud platform that provides the structure needed for consistency and context in data collection and documentation, you'll save a tremendous amount of frustration—and be able to iterate and progress your research that much faster.

Imagine, for instance, being able to automate data capture. Instead of relying on time-consuming manual entry in a variety of disparate places, a new cloud platform can record every detail of your experiments and host related data in one location. This platform can handle bulk data uploads as well as connect crucial data as it's entered. Experiment results, for instance, can automatically be linked to all of their associated data throughout the platform, including previous lab notebook entries as well as related samples, reagents, and DNA sequences. Each piece of data is natively linked with its necessary context; click on any one element and easily see the whole picture.

With this level of consistency and traceability, you'll have far better data integrity to lean on when sharing with investors or partners, as well as when preparing IND filings or patent applications. You'll also have the consistency needed to understand your research and your progress—and make key research decisions faster. Because all future decisions will be based on past decisions, these early choices are some of the most critical your company will ever make.

"With Benchling, it's so much faster and easier to find the information that you want, and share information even in real time. Series of experiments go faster, program timelines go faster, and it shortens the timelines for the development of our therapeutics."

Cherylene Plewa
Vice President of
Molecular Biology

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