



CASE STUDY

# Decreasing Data Management Time by 41% to Rapidly Scale Clean Milk Production



## GOAL

# Quick, efficient scale-up of cell-based milk production.

TurtleTree Labs' mission is to shape the future for dairy milk and infant nutrition production by creating milk in the lab. The company uses a proprietary, cell-based biotechnology method to reproduce milk components, which is too complex to do through traditional fermentation-based techniques. With enough scale, TurtleTree will be able to achieve resource efficiency and increase access to healthier, safer, reliable, and higher quality dairy products for consumers around the world

## CHALLENGES

Company growth exposed the difficulty to track and optimize processes in the lab through spreadsheets and emails.

Without a centralized system for experimental data, the executive team couldn't easily get an overview of research progress. This made it difficult to set new goals and timelines.

R&D teams distributed across Singapore and Pakistan needed an easy way to share progress and results.

## RESULTS

41%

decrease in time spent on data management tasks

28%

increase in quality of data describing research progress

4/5

scientists agree Benchling increases the speed of collaboration



“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



# The Story

**# of employees:** 11-50

**Industry:** Biotechnology

**Offices:** Singapore (HQ), Pakistan

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Fengru Lin (CEO) and Max Rye (Chief Strategist) aren't your typical life science leaders. In fact, they both have a background in tech – their leadership experience ranged from Salesforce to Google to DeepCloud. They knew that in order to scale rapidly, TurtleTree would need a robust, cloud-based data management system for accurate documentation and recording. "We knew we needed to get a system in place early. Would you rather implement that system after you scale, or would you rather have that system be the thing that helps you scale?" said Max. Without such a system, scientists could spend upwards of 40% of their time on tasks like entering data, searching for results across multiple systems of record, and unnecessarily repeating experiments.

With strong executive support, scientists quickly adopted vv in every part of their experiments. Clear leadership also helped rapidly build healthy processes around entering, sharing, and extracting data from the system to make informed decisions. What emerged was a culture where Benchling is one of the most essential tools for R&D, be that at the bench or the boardroom. For example, instead of using PowerPoint to communicate project progress and results in weekly meetings, TurtleTree uses Benchling. After the meetings, everyone can easily access all the results, Notebook entries, and samples that were discussed.

With a single system to track all experimental data and report on results, TurtleTree's scientists have become 41% more productive, and leaders have a 360-degree view of project progress. The company is now scaling rapidly and smoothly across multiple worksites.



“It almost feels like an unfair advantage compared to companies not using these types of systems.”



Fengru Lin, CEO



# Benchling Solutions

## Centralized data streamlines scaling and improves productivity

- ✓ Samples and results data are automatically connected, so TurtleTree can quickly identify the most promising processes for scaleup
- ✓ As TurtleTree scales and adds new teams and processes, they can rely on Benchling to provide the historic protocols for the team to replicate and evolve.
- ✓ Since all experimental data – from notebook entries, to sequences, to results – is in one place, scientists spend 41% less time entering and searching for data.

## Dashboard visualizations give leaders a 360-degree view of R&D progress

- ✓ Benchling Insights helps managers and executives keep a tight pulse on day to day work, while also providing a cohesive overview of all different research programs.
- ✓ As a quickly growing company, TurtleTree needs to make decisions rapidly yet confidently. With the full history of their experiments at their fingertips, executives can make prompt, data-driven decisions.
- ✓ Since Benchling has improved the integrity of TurtleTree's data, it's much easier for leaders to forecast and set informed timelines.

## Distributed teams collaborate seamlessly with a single, shared system

- ✓ Everyone can easily access data and results shared in team meetings, since scientists present directly from Benchling.
- ✓ Connecting with teammates in different countries is as easy as pulling up their Benchling Notebook.
- ✓ Scientists in downstream groups can easily access a complete history of everything that happened upstream of them.





If you'd like to learn more about the enterprise lab informatics solutions that Benchling provides, [please contact us](#)