# BlueNalu Sees Efficiency Gains and Boosts R&D Traceability with Uncountable

## SUMMARY: UNCOUNTABLE + BLUENALU

The world needs a new solution to support our seafood supply without harming the ocean. According to the World Wildlife Fund (WWF), around 90% of global fish stocks are overfished or fully exploited. As populations grow and the demand for protein rises, sustainable seafood options will be critical for providing food security and supporting our environment. BlueNalu, the global leader in cell-cultured seafood, is working rapidly to develop and scale a new food solution that provides renewable and restorative seafood that is healthy for people and the planet.

***In this case study, we examine how BlueNalu improved research efficiency and traceability by using Uncountable's R&D data management platform.***

BlueNalu

**Challenges:** Before Uncountable

- Traditional data recording and analysis methods were time-consuming
- Limited coordination capabilities and consistency in record-keeping
- Retrieving, tracking, and auditing findings was challenging
- Traceability for regulatory compliance was restricted

**Outcomes:** With Uncountable

- Consistent and accessible record-keeping and management
- Seamless tracking and tracing across the entire R&D process
- Improved R&D efficiency by 25%
- Streamlined traceability for regulatory compliance requirements

The development of renewable food products involves a research-intensive process that requires an integrated and comprehensive approach to ensure progress while maintaining stringent controls.

As such, research and development for new food products require close coordination and record-keeping, processes that can quickly become bottlenecks in the progression of research efforts. At BlueNalu, researchers faced these challenges as they worked to scale their systems using traditional data recording and analysis methods to steer processes.

To successfully improve operations to produce consistent, safe, and high-quality seafood options, BlueNalu was looking for a robust R&D recording system to ensure accuracy, consistency, and effectiveness.

In this case study, Uncountable talked to two key employees at BlueNalu: Courtney Benson, Ph.D., Associate Director of Research & Development (R&D), who leads cell line development, and Keerthi Srinivas, Ph.D., Director of Bioprocess Development.

> ***"We have already noted an increase in R&D efficiency of at least 25%... our goal is to keep improving on this metric as we continue to scale."***
>
> **Keerthi Srinivas, Ph.D. |** Director of Bioprocess Development

## **THE CHALLENGE:** FINDING A BETTER WAY TO COORDINATE RESEARCH

While these methods worked well at a small scale, BlueNalu found that traditional recording methods were hard to keep up to date and not suited to the complexities of handling and auditing research data as the company grew. The lack of a unified system for recording and sharing data cross-functionally became time-consuming as research findings were difficult to compare. For example, paper notebooks made it hard to track cell lines and ensure consistency in experimental methods.

Courtney and Keerthi's primary goal was to enable better data control, collaboration, and hierarchy by implementing consistent templates to make data retrievable and comparable from cell line development to manufacturing.

## **UNCOUNTABLE'S RESPONSE:** SEAMLESS R&D RECORDS & MANAGEMENT

Enter Uncountable, an enterprise-class R&D platform that simplifies collecting, managing, and visualizing experimental data across complex research projects. An integrated electronic lab notebook, Uncountable offers a seamless audit trail, eliminating the need for manual, time-consuming auditing.

*"We found Uncountable appealing because of the variety of [its] customer base and the configurability of the platform. The Uncountable team also dedicated the time and resources necessary to understand our operations and our R&D process to customize the platform solution,"* said Courtney.

With Uncountable, templates can be preloaded, ensuring uniformity in data entry across the company. BlueNalu also tracks experiment parameters and data from the early stages to process development, using Uncountable's system to standardize the process.

## **THE UNCOUNTABLE SOLUTION:** EFFICIENCY & ENHANCED DATA ACCURACY

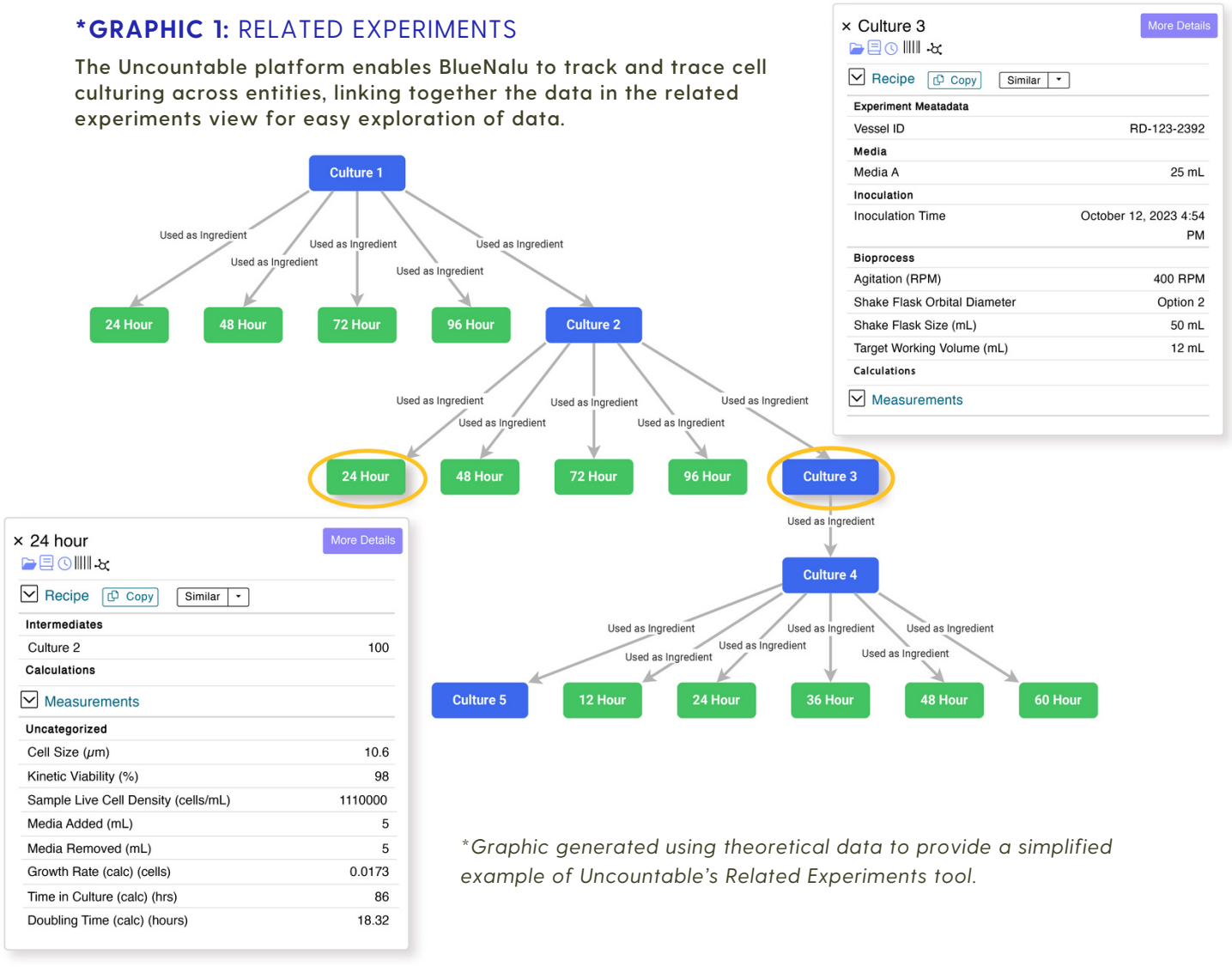
- **TRACKING CELL LINE DEVELOPMENT**

**How Did Uncountable Impact R&D at BlueNalu?** Consider cell line development, for example. When developing cell lines, researchers examine various parameters, such as testing different media additive requirements to enable optimal cell growth. This requires analysis of the effects of each test to draw conclusions and determine suitable growth conditions for the cell lines. Researchers must be able to track and trace those parameters at each stage, from cell line development to manufacturing.

According to Courtney, *"Uncountable allows for specific tracking of each tested parameter across cell line development. By using Uncountable, we can monitor how changes in one parameter in varying conditions affect the growth of a cell line and determine the impact of each change. It aided our ultimate goal of promoting fast, healthy cell growth."*

### *GRAPHIC 1: RELATED EXPERIMENTS

**The Uncountable platform enables BlueNalu to track and trace cell culturing across entities, linking together the data in the related experiments view for easy exploration of data.**




**Graphic generated using theoretical data to provide a simplified example of Uncountable's Related Experiments tool.*

## • TRACEABILITY IMPACTS CELL CULTURE MEDIA

Researchers like those at BlueNalu often need to monitor and validate their data with meticulous precision and explicit documentation.

With support from Uncountable's team, BlueNalu was able to increase traceability within their experiments, allowing researchers the ability to pinpoint errors and improve the accuracy of their work in a timely manner. Keerthi said, *"Media batch traceability between different experiments using Uncountable's templates help provide BlueNalu's R&D team to quickly process and analyze data, resolve any unintended issues, and result in the quicker turnaround on experiment timelines."*

> ***"Media batch traceability between different experiments using Uncountable's templates helps BlueNalu's R&D team to quickly process and analyze data, resolve unintended issues..."***
>
> **Keerthi Srinivas, Ph.D.**
> Director of Bioprocess Development

## • THE RESULTS: IMPROVED PRODUCTIVITY AND ENHANCED DATA ACCURACY

According to Keerthi: *"It's early stages, but since we started using Uncountable, we have already noted an increase in R&D efficiency of at least 25% – and our goal is to keep improving on this metric as we continue to scale."*

It comes down to the day-to-day usability, too. For Courtney, the configurability of field types in Uncountable effortlessly streamlines the data capture process. As an admin, she can manage drop-down menus to ensure standardization.

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> **Courtney Benson, Ph.D.**
> Associate Director of Research & Development

## **WHAT'S NEXT:** GROWING TOGETHER

Uncountable empowered BlueNalu to overcome limitations in data management, boosting productivity and offering a higher level of data accuracy and traceability. It's a game-changer in their goal to produce delicious seafood without consequences for humans, animals, and our environment. Uncountable and BlueNalu are excited about how a collaboration like theirs can create impactful results. Both companies look forward to a continued partnership and ensuring an ever-expanding software solution that supports the nuances in BlueNalu's scientific process to drive rapid R&D progress.

## **ABOUT UNCOUNTABLE:** ALL-IN-ONE R&D PLATFORM

Uncountable provides an industry-leading unified laboratory informatics software platform that helps the world's largest R&D organizations drive innovation. Uncountable's unified laboratory informatics platform helps researchers streamline how they manage and analyze data often spread across spreadsheets, shared drives, and diverse laboratory data systems.

Uncountable's all-in-one solution helps enterprise R&D organizations modernize and streamline data management and analysis – providing scientists, chemists, and researchers with a single and easily accessible web-based platform that comes fully integrated with all the critical data systems and tools used in the laboratory, including electronic lab notebooks (ELNs), laboratory information management systems (LIMS), advanced visualization and reporting tools, and more. To learn more, visit our website: www.uncountable.com

## WANT TO LEARN MORE?

For more information about how Uncountable can supercharge your organization's R&D efforts and strengthen collaboration, visit www.uncountable.com or schedule a free personalized platform demo:

**REQUEST A DEMO**