



Case Study - Myllia Biotechnology

Streamlining CRISPR screening with **eLabNext**

“Documenting lab work with this intuitive software makes day-to-day life in the lab much easier. It not only helps to monitor project progress but also serves as an indispensable tool for organizing samples and inventory within our company”



Daniela Flehberger
MSc, Lab Scientist at Myllia

About Myllia Biotechnology GmbH

[Myllia Biotechnology](#) specialises in combining CRISPR screening with single-cell RNA sequencing to advance genetic research and accelerate drug discovery. Using the CROP-Seq (CRISPR droplet sequencing) technology, which measures transcriptomic changes in response to CRISPR perturbations at the single-cell level, the effects of thousands of genetic modifications can be mapped. This innovative and modular screening platform enables to unravel gene regulatory networks in cancer and primary human cells or elucidate the mechanism of action of drugs.

Founded in 2018 in Vienna, Austria, Myllia Biotechnology has experienced rapid growth and now employs a growing team of 30 scientists. In addition, Myllia was awarded the Phoenix prize as the best start-up in Austria.

VISIT Myllia

Goals

Short-term: Myllia Biotechnology is dedicated to improving the efficiency of documentation and data management. This should facilitate the company's continued growth and enable a more effective organization of genetic screening projects.

Long-term: Myllia is pursuing the advancement of its CRISPR screening techniques with the objective of accelerating the discovery of new drugs.

Challenges

Prior to implementing eLabJournal, Myllia relied on paper-based lab journals for research documentation. This posed significant challenges in terms of searchability, organization and collaboration. The need for a more structured, collaborative, and accessible form of documentation became critical to support the company's evolving research needs.

Although Myllia Biotechnology didn't face any immediate inventory management issues, the company's continued growth meant that it could foresee inventory management becoming an increasing burden in the long term.

Solution

After evaluating a range of digital lab solutions, Myllia selected eLabNext's electronic lab notebook (ELN). The main reasons were its robust and straightforward organization, intuitive interface and the easy access to projects and documentation. The company also decided to implement eLabInventory, which is packed with smart management tools to strengthen and streamline inventory and sample management. Furthermore, eLabNext's expert advice and round-the-clock customer support gave Myllia the confidence that the new system could be implemented quickly and effectively.

Results

The implementation of eLabNext solutions has provided Myllia with a centralized platform to more efficiently manage and document its sophisticated and expanding research portfolio. Some of the key benefits Myllia has experienced include:



| Enhanced data organisation

The adoption of eLabJournal has significantly changed the way Myllia Biotechnology manages its laboratory processes, greatly improving both the traceability of research documentation and the management of sample inventory. The enhanced data organization capabilities of eLabJournal have streamlined the recording of CRISPR screening projects. This has allowed scientists to keep up with the demands of complex projects.

| Robust sample tracking

eLabInventory has revolutionized how Myllia tracks all its generated and used samples, providing comprehensive visibility into sample usage and associated data from previous experiments. In particular, the inventory browser feature has become invaluable for managing the vast number of samples typically used in CRISPR screening workflows.

| Collaboration and sharing

Adopting eLabJournal has greatly simplified protocol management. Researchers at Myllia can now easily upload, generate, and link protocols as well as Standard Operating Procedures (SOPs) to specific experiments. This increased compliance and efficiency in daily operations. In addition, eLabJournal has fostered a more collaborative and transparent environment within Myllia. The platform makes experiments, samples, data, and protocols readily accessible to all involved team members, facilitating better collaboration and sharing information across various projects.

Future Plans

Myllia Biotechnology intends to continue using eLabNext digital lab solutions to enhance its research capabilities. As the company continues to expand, eLabJournal and eLabInventory will continue to provide critical support in managing increasingly complex data and workflows. The use of digital lab management tools will support Myllia's position at the forefront of genetic research and enable its mission to discover novel therapeutic targets through a deeper understanding of gene regulatory networks.



eLabJournal

About eLabJournal

eLabJournal offers an intuitive and flexible solution to manage information in your lab. The all-in-one Electronic Lab Notebook also includes sample tracking and protocol management modules. eLabJournal improves efficiency when documenting, organising, searching, and archiving data, samples and protocols. The software is suitable for any lab ranging from small academic laboratories and start-up companies to large academic institutes and globally operating companies.



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