



The University of Pittsburgh  
Behavioral Immunology Lab  
optimizes sample  
management with eLabJournal

*eLabNext has saved us plenty of time, about a 50% improvement, when it comes to tracking and managing samples.*



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## Company Description

The University of Pittsburgh was founded in 1787 and is a top-ranked institution in the world. The Behavioral Immunology Laboratory researches health psychology and is interested in how psychological, social, and environmental factors affect immune, cardiovascular, and neurological health. The team of 25 researchers (10 full-time and 15 undergraduates) study a range of biomarkers, including biological markers of inflammation and examine factors contributing to individual differences in vulnerability to disease and accelerated ageing.

## Goal

The Behavioral Immunology Laboratory produces biological data for its investigations and for several collaborative studies. The main goals are to:

- 1) Deliver results of analyses to the study investigators as quickly as possible after a study stops recruiting participants and collecting samples.
- 2) Keep track of several freezers where samples are stored and several refrigerators where ELISA kits are stored.
- 3) Closely track all samples in inventory.

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## Challenge

*| To eliminate a labour-intensive and inefficient sample tracking system*

Before implementing digital lab management software, the Behavioral Immunology Laboratory kept track of sample locations on paper and periodically transferred data to a Microsoft Excel worksheet. Later, staff would create lists of samples to be analysed and tracking sheets to create plate layouts on paper. This labour-intensive and inefficient system made it difficult to find a specific sample within a cryo box. The team considered moving to an Excel-based system to alleviate some inefficiencies, but this method would only help with some issues and only met some requirements.

The Behavioral Immunology Laboratory's hybrid sample management system made tracking how many samples were left in the freezer challenging. This information is essential to let investigators know whether there were sufficient samples to conduct assays and to minimise time wasted searching for samples that don't exist. Lastly, since only a few studies have barcodes, tracking aliquots is much more complicated.

## Solution

*| An affordable platform with the necessary management features*

Since the research lab is fully funded by grants with varying funding yearly, the Behavioral Immunology Laboratory is searching for affordable lab management software that meets its needs. eLabJournal from eLabNext makes it easy to locate samples with specific identification filters, such as the freezer, shelf, cryo box, and place of a sample within that box. The team keeps track of its ELISA kit inventory with barcode automation quickly and efficiently, especially compared to the old hybrid method. Standardising barcode formats without having to design new ones for each study will be critical when the lab takes on more projects.

## Result

*| eLabNext streamlines the entire research process*

The Behavioral Immunology Laboratory now standardises and quickly prints labels for a more productive research process. The team no longer has to create layouts specifically for finding samples. It may instead search for the sample ID, see the sample's location, and move it both physically and within the eLabNext platform. It took about one month for the lab to implement eLabJournal fully, but it could have taken a week if the team had focused only on the implementation process.

With the reliable eLabNext sample and inventory features, the Behavioral Immunology Laboratory researchers know that all their research information is organised and easily accessible whenever needed.



## 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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## Want to learn more about how eLabNext can help elevate your lab?

Email us at [enquiries@elabnext.com](mailto:enquiries@elabnext.com), or fill out our contact form.

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