



SmartLab

THE SELF-DOCUMENTING
LABORATORY

A collaborative effort between RCPE and LoconIQ



THE SOLUTION

Development costs for innovative medicines are still in the billions. Despite all technological progress with data-driven models, we still depend on *manual data capturing* from researchers and lab staff tasked with discovering new molecules, testing them, and delivering new therapies. Documentation and reporting are, however, tedious and error-prone.

Automating data entry into electronic lab notebooks and laboratory information-management systems (LIMS) will allow the lab staff to finally *focus on what is essential: the science*. It further reduces the operational time and costs for formulations and the development process.

Based on our patented and proprietary 3D localization technology, *SmartLab* tracks everything you need for seamless executions and provides the information in a single shared system.



For Demo Video
Scan/Click Me



OUR MODULES

Hassle-Free Experimentation with a System Designed for Pharma. SmartLab was designed *by scientists for scientists*, aiming to provide comprehensive data insights and analysis, freeing researchers from tedious and repetitive tasks.

Self-Documentation

Automatic data capturing,
logging and reporting



Locate and Navigate

Localize materials in the lab and
seamlessly navigate to them



Inventory Tracking

Manage material inventory and
their conditions in real-time



Digital Guidance

Protocol and lab procedure guidance
to drastically reduce human errors



PLUG-AND-PLAY SOLUTION

The SmartLab provides sensors for *materials and equipment* to capture high-precision spatial, motion, and conditional data in real-time.

SELF-DOCUMENTATION

Smart Lab is a hands-free solution that automatically records experimental data from materials, equipment, and PAT tools. It eliminates the need for manual documentation and logging. *Advanced machine-learning algorithms* analyze and parametrize inputs to allow easier comparisons and analysis.



Minimize Human Errors

Automated data capturing replaces manual logging efforts and thereby eliminates human-induced errors with seamless backtracking



Capture Valuable Data

Tedious and time-consuming manual documentation in batch records is eliminated to allow lab personnel to focus on the task at hand



Accelerate Experimentation

Lab staff can focus on scientific/experimental tasks to drive innovation yielding fast product-to-market cycles



LOCATE & NAVIGATE

Track where each material is in the experimental process – inside and outside the laboratory. SmartLab allows you to *track materials and oversee/monitor processes* with updates in real time. It furthermore enables *remote monitoring of operations*, even on the manufacturing floor, to *ensure quality* from afar.

Single Shared Platform

Retrieve information on experiments, equipment in use, and the location of potentially hazardous materials at any time.



Full Picture with Detailed Data

Track and monitor storage conditions, ensuring adherence to regulations and quality.



Streamline Operations

Gain detailed insights into your processes and the use of equipment, instruments, and materials to identify process optimizations



INVENTORY TRACKING

Laboratory managers spend considerable amounts of time monitoring materials and manually collecting data. *SmartLab* allows you to *oversee the lifecycle of materials* and track the work-in-progress with real-time inventory management capabilities. *SmartLab* prevents exceptions from becoming deviations and supports the lab staff in identifying bottlenecks that delay lab processes.



Manage Inventory in Real-Time

SmartLab's inventory management solution provides real-time spatial and conditional information on materials and substances



Optimize Resource Management

In-depth analysis of usage patterns, fill levels, and material stockpiles to optimize resource management



Ensure Quality

Monitor storage conditions continuously to ensure quality and adhere to regulatory requirements



DIGITAL GUIDANCE

SmartLab provides enhanced digital instructions to *guide technicians, staff, and scientists* through lab procedures and protocols. Users can access guidance and assistance for lab procedures using Augmented Reality (AR) on smart glasses and monitors. Captured data is overlaid on equipment and materials for optimized accessibility and seamless visualizations. Scientists are hence empowered to adapt earlier, ensuring more cost-effective experimental processes.

Experiments with Real-Time Feedback

Real-time data enables efficient and cost-effective experimental processes, ensuring optimized operations while avoiding delays and safety hazards



Support Quality-by-Design Principles

Improve experimental results using mechanistic and data-driven models that are updated in real-time



Enhance Integrity

Ensure data integrity and reproducibility while attaining consistent qualities





Get in Touch

We look forward to getting in touch with you to discuss the needs of your business.

Reach out and visit us at our laboratory of the future to see the innovation in action.



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