



Configurable LIMS Streamlines Lab Operations at Leading Veterinary Hospital

AT A GLANCE

CHALLENGES

- Legacy LIMS
- Growing Case Loads
- Disconnected Instruments
- Manual and Inefficient Workflows
- Complex Case Needs
- Limited Reporting Options
- Poor Access Control
- Painful Sample Traceability



"The test setup with VetSci is so efficient that it only took me 2 hours to set it up instead of 2-3 days with other LIMS."

**Head of Diagnostic
Microbiology Top Veterinary
Care Hospital**

OBJECTIVES

A leading-edge veterinary hospital at a major US university needed to improve lab efficiency, streamline data management, and enhance animal care. Their legacy Laboratory Information Management System (LIMS) no longer supported their demands so they sought to implement a next-generation LIMS that would facilitate robust case management and data analysis.

SOLUTION DEVELOPMENT

To better understand the environment, SynapticSci's LIMS experts and PhDs worked with the university's leadership and scientists to document their unique and complex operations. VetSci, a LIMS platform designed to retrofit and upgrade veterinary hospitals and diagnostic labs, was configured to meet their needs, resulting in a trusted relationship and a LIMS solution that enables faster and more insightful animal care.

BENEFITS

Powerful Architecture Manages Complexity

Highly flexible and configurable, the architecture manages nested relationships, herd submissions, and automatic sample tagging based on specified criteria. Leveraging multi-dimensional matrices and smart logic, VetSci automates complex laboratory workflows.

Real-Time Calculations Improve Data Integrity

The powerful calculation engine provides real-time test results and delivers intuitive displays, such as a differential counter, increasing usability and reducing data integrity errors.

Smart Order Tracking Improves Efficiency

VetSci allows for department specific order naming, identification, and tracking. Order entry, submission, propagation tracking, results entry, and reporting are all included and configurable.



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BENEFITS

Intuitive UI and Excel Capability Simplifies Usability

Native Excel capability allows users to edit data in real-time. Bulk edit and reporting functionality enables faster processing, while enhanced data exploration features allow administrators to quickly gain insights. Data duplication detection and auditing provide a complete solution.

Instrument Integration Eliminates Manual Entry

VetSci integrates with Advia, ABL, Vitros, Stago, Immulite, Vitek, and Sensititre via a custom API. VetSci utilizes Microsoft on-premise's data gateway to securely send and receive data to local instrument workstations, eliminating manual data entry.

Application Integration Solves Workflow Gaps

Unique to this lab, all orders are required to be sent from the StringSoft Hospital System to VetSci to process. VetSci solves this by leveraging Mirth middleware to convert messages from HL7 to Parsed JSON format. VetSci receives the data through a custom API, allows for data parsing and processing, then returns results back to StringSoft after verification.

Barcode Functionality Improves Traceability

Sample data is sent to a custom API to generate and print a barcode and label. When a user scans a barcode, the system auto-lists a record for easy access and accurate traceability.

RBAC Improves Security

Microsoft Dynamics robust security protocols allow for easy assignment of role-based access controls (RBAC), ensuring security roles are properly defined and users can only access their designated data and areas.

Custom Reporting Unlocks Data Insights

VetSci's flexible configuration allows for data to be filtered, analyzed, or graphed in a wide variety of ways. Comments, scanned documents, and images can be analyzed, and reports can be saved in a multitude of customizable formats.



"We developed VetSci precisely to meet the complex and unique demands of veterinary hospitals and VDLs. Our cutting-edge LIMS enables staff to adapt faster, analyze smarter and achieve more."

DOUG HOLBROOK

Co-Founder & CEO -
SynapticSci