ThermoFisher SCIENTIFIC

Unlock the True Value of Your Data

Global BioPharma Summit

The world leader in serving science

Where Does Your Laboratory Fit In?

Your Laboratory is a Critical Component of Your Business Enterprise





Informatics drives your end-to-end laboratory process and connects your lab to your enterprise



Some of the Big Data Challenges

How much is your data worth?

Data is knowledge

We create increasing volumes of data

- Is our knowledge scaling?
- Is this knowledge safe?
- Can we access this knowledge?





How Can We Turn Data Into Knowledge?

Data to Knowledge





LIMS

Streamline your chromatography and routine mass spectrometry workflow with one CDS.

CDS

Manage the data, resources, and workflows of your laboratory, turning your data into actionable business intelligence. SDMS

Visualize and securely share data across your organization across multiple techniques and vendors. Simplify the execution of your methods and SOPs by driving analysts step by step through the process.

LES & ELN

INTEGRATION

Integrate your laboratory from instruments through to enterprise systems to achieve end to end data management.



Data Challenges – Routine Analytical Workloads

Routine analytical work can account for around 35% of laboratory time





Data Challenges – Multiple Data Acquisition Platforms

- Increased training
- Increased administration
- Increased infrastructure
- What benefits could fewer platforms (or just one) bring?
 - Reduce all of the burdens above
- Thermo Scientific[™] Chromeleon[™] CDS controls more than 450 different modules from 17 different manufacturers including:
 - Thermo Scientific (LC, IC, GC, MS, Sample Prep)
 - Agilent (LC, GC)
 - Waters (LC)
 - Shimadzu (LC, GC)
 - Varian (LC, GC)
 - Perkin Elmer (LC, GC)
 - Gilson (LC)
 - CTC PAL (Sample Prep)





Data Challenges – Mass Spectrometry



- >20 years CDS experience
- Gold standard CDS
 - Unparalleled ease-of-use
 - Strong quantitation functionality
 - Scalable enterprise architecture
 - Comprehensive auditing and data management



- >30 years of MS experience
- Leading-edge MS portfolio
 - Highest sensitivity and selectivity
- Unrivaled MS application expertise

- Streamline chromatography and MS quantitation workflows in one software package
- ✓ Use MS like any other routine detector, including High Resolution MS

Data Challenges – Simplifying Lab Workflows

eWorkflows contain:

- Instruments on which the analysis can be run
- All associated methods and files including reports and external documents like SOPs
- ✓ Ensure your SOP is followed
- Reduce errors and produce reliable results faster
- ✓ Fully customizable for any application in any laboratory
- Minimize amount of training required



appslab.com

eWorkflows «						
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eWorldlows						



Data Challenges – Documentation Management

As much as 45% of time is spent on documentation to support compliance





Data Challenges – Data Management in Pharma and Biopharma Laboratories

Value from data



- Many disparate data systems e.g. LIMS, PIMS, MES, ERP, CDS
- Time-consuming to extract and collate data from various systems
- Difficult to make informed decisions

Compliance



- Concerns around FDA 21 CFR Part 11
- Difficult to prove events and actions performed
- Data integrity challenges
- Too much time spent preparing for audits



Process challenges

- Significant analyst intervention required
- Reliance on paper
- Excessive time spent reviewing data
- Quality concerns through process inconsistencies

Data management



- Difficulties integrating instruments from multiple vendors
- Challenging to archive vast amount of data
- Require legacy instrument software to view old data

Compliance and documentation are the core challenges for most QA/QC laboratories



Data Challenges – The Complete Package for Pharma and Biopharma

More than a LIMS

Thermo Scientific[™] SampleManager[™] manages the entire laboratory, ensuring adherence to processes, maintaining data integrity and facilitating complete regulatory compliance





Data Challenges – Laboratory Execution Using Procedural ELN

- Perform key tasks via tablets or web browser
- Method execution starts by presenting an introductory summary and prerequisites
 - During execution, for each step instructions are shown, along with prompts to capture step data
 - Instrument data can be read directly into the App



Execute lab work anytime, anywhere



Your Project is a Partnership







