

# Laboratory of the Future: A Tech Spotlight on the Future of Research

**JUNE 27, 2024**

**8AM PDT | 11AM EDT | 4PM BST | 5PM CEST**

Join us for a glimpse into the groundbreaking world of tomorrow's research labs.

This immersive webinar offers an exclusive glimpse into the groundbreaking technologies shaping the laboratories of tomorrow. Delve into the dynamic fusion of cutting-edge technology and scientific exploration as our visionary experts unveil revolutionary laboratory setups. Attend this webinar to:

- Uncover strategies for enhancing the predictability and efficacy of synthetic biology
- Navigate the transformative landscape of machine learning and automation in scientific research
- Recognize the latest trends and updates in regulatory guidance documents related to data integrity
- Attain more comprehensive results with new cutting-edge workflows for peptide and protein characterization

## TALK 1

**DR. HÉCTOR GARCÍA MARTÍN**  
STAFF SCIENTIST  
LAWRENCE BERKLEY NATIONAL LAB



### LEVERAGING MACHINE LEARNING & AUTOMATION TO SYSTEMATICALLY GUIDE SYNTHETIC BIOLOGY

Biology has changed radically in the last two decades, transitioning from a descriptive science into a design science. Synthetic biology leverages engineering approaches to produce biological systems to a given specification.

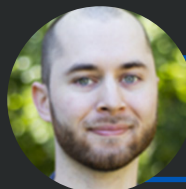
In this session, Dr. Héctor García Martín from Lawrence Berkely National Lab will show how the combination of machine learning and automation can make synthetic biology predictable and enable tackling current human challenges such as climate change.

In his talk, he will:

- Discuss how synthetic biology can make a significant difference in the world we live
- Explore how machine learning can make synthetic biology more predictive
- Showcase how automation can provide high-quality data for machine learning

## TALK 2

**CHRISTIAN KLEIN, PhD**  
PRODUCT MANAGER LC/Q-TOF  
AGILENT TECHNOLOGIES



**JOSEPH MEEUWSEN, PhD**  
PRODUCT MANAGER ExD  
AGILENT TECHNOLOGIES

### UPGRADE YOUR PROTEIN CHARACTERIZATION GAME WITH AGILENT ExD

Experienced biopharma scientists who specialized in peptide and protein characterization face increasing pressure to achieve in-depth characterization with streamlined workflows, ensuring precise data and timely results.

In this session, Dr. Christian Klein and Dr. Joseph Meeuwsen from Agilent will provide insights into meeting these challenges with the latest enhancements for peptide & protein characterization with the Agilent 6545XT AdvanceBio LC/Q-TOF.

In their talk, they will:

- Discuss the new Agilent software for interpreting rich MS/MS spectra with confidence
- Explain how to attain more comprehensive and timely results with new cutting-edge workflows for peptide and protein characterization

## TALK 3

### **VIKTOR KRAVCHUK**

APPLICATION SPECIALIST LAB WEIGHING AND GITIAL SOLUTIONS  
SARTORIUS



### **MASTERING DATA INTEGRITY WITH HIGH-PRECISION LAB BALANCES & ASSOCIATED SOFTWARE**

To ensure that your data integrity programs work, it is essential to keep up to date with current regulatory trends—monitoring both new regulatory guidance documents and trends in non-compliance.

In this session, Viktor Kravchuk from Sartorius will ensure that you understand the impact of recent and proposed updates, by addressing four topics within the framework of the data integrity model of a regulated laboratory.

In his talk, he will:

- Discuss connectivity requirements for modern lab instruments
- Explore how data integrity issues can be avoided in the lab
- Highlight factors to be considered when purchasing a connected instrument to ensure compliance

## TALK 4

**SANDRA SODERHOLM, PhD**  
APPLICATION DEVELOPMENT SCIENTIST  
SARTORIUS



### **CONNECT AND ENJOY PIPETTING: AUTOMATE WORKFLOWS WITH PICUS® 2**

The recently introduced Sartorius Picus® 2 electronic pipette takes workflow execution and traceability to the next level. Its full potential is unlocked when it is used in combination with the freely available Sartorius Pipetting Mobile App.

In this session, Dr. Sandra Soderholm from Sartorius will discuss the features of Picus® 2 and how it can make your lab more enjoyable.

In her talk, she will:

- Discuss how to improve your pipetting workflow execution and with handheld Bluetooth-equipped pipettes connected to your mobile device
- Showcase how to program your own pipetting workflows with the Sartorius Pipetting Web App

## TALK 5

**NAMYONG KIM, PhD**  
CEO  
CURIQX BIOSYSTEMS



### **ADVANCING FLOW CYTOMETRY: CUSTOMIZED AUTOMATION FOR NEXT- GENERATION SAMPLE PREPARATION**

Conventional sample prep methods often rely on manual operations, which can lead to issues in standardization, reproducibility, and require highly skilled personnel.

In this session, Dr. Namyong Kim from Curiox will explore how Curiox Biosystems is revolutionizing sample preparation for flow cytometry workflows through the Curiox C-FREE™ technology.

In his talk, he will:

- Discuss how automating sample preparation in flow cytometry improves workflow efficiency and accuracy
- Provide insights into the working principles and benefits of pipette-based buffer exchange over centrifuge-based buffer exchange
- Showcase the typical assay conditions and expected data quality of the Curiox C-FREE™ Pluto LT automated workflow