The LRIG – New England Chapter 2010
Fall Vendor Exhibition and Symposium

Event Details and Agenda

Wednesday October 21st, 2010
Boston Marriot Cambridge Hotel
2 Cambridge Center, 50 Broadway
Cambridge, MA 02142

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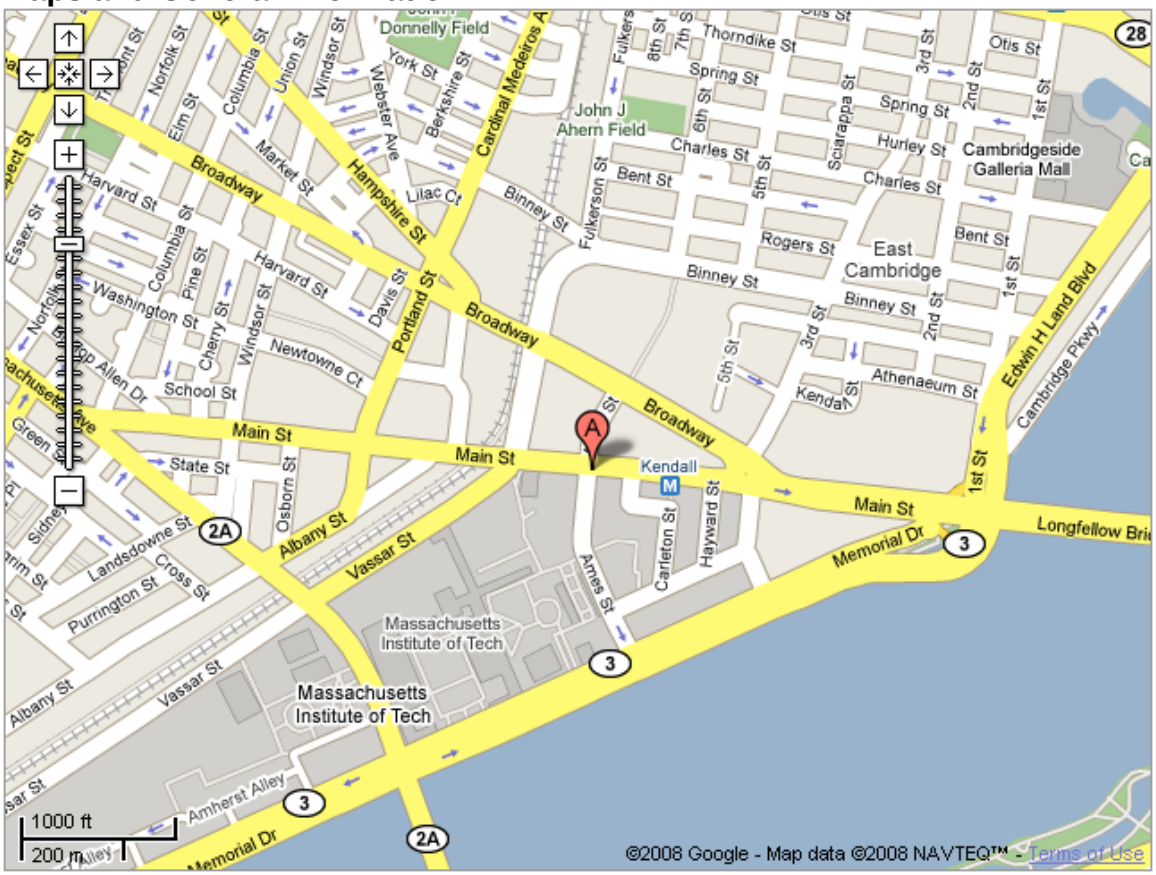
Maps and General Information:



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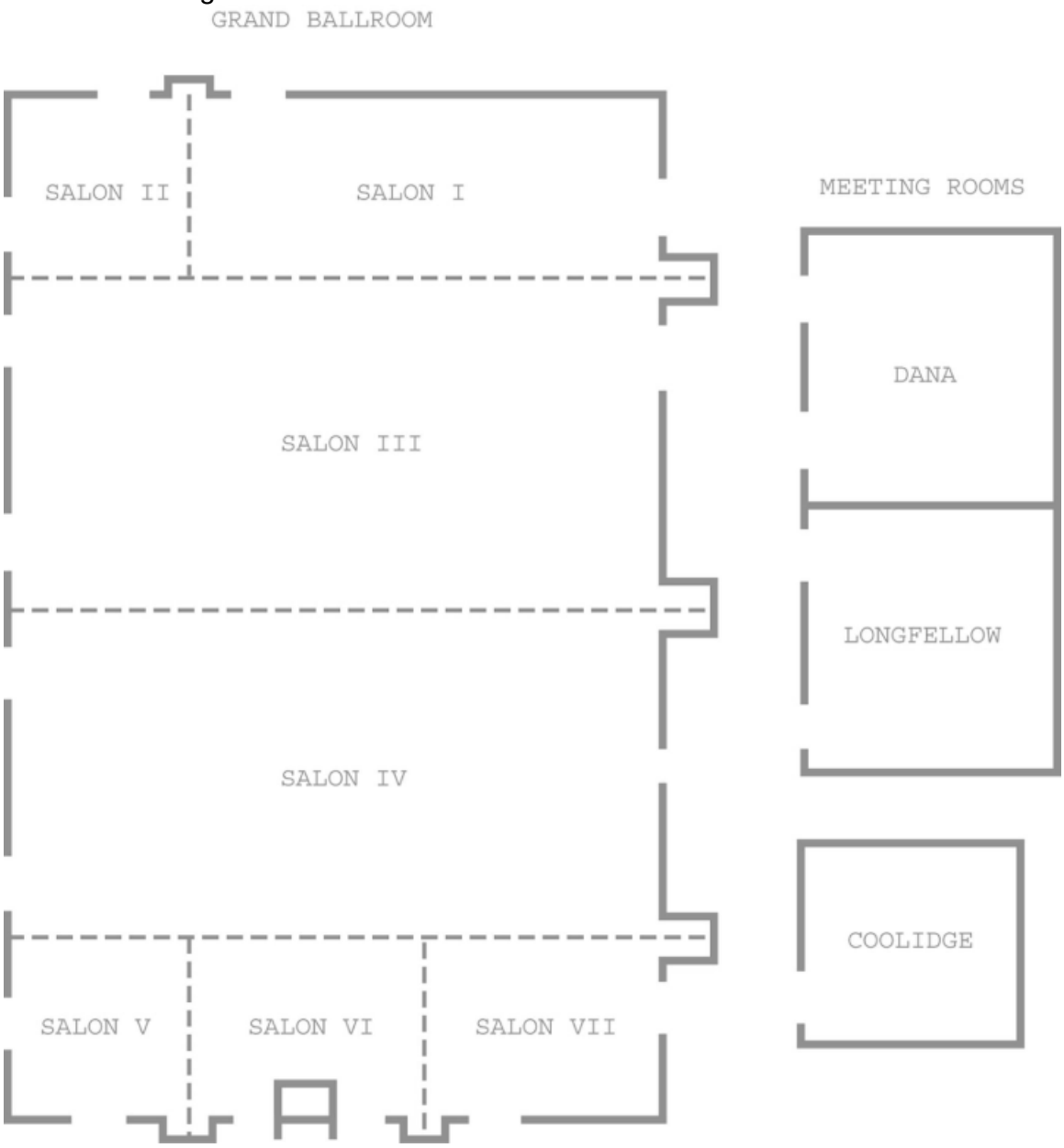
Exhibition and Workshop Floor Plan

The Grand Ballroom is located on the 2nd floor of the hotel. It can be accessed using the escalator or the elevator. The Dana and LongFellow meeting rooms are located on the 3rd floot. There is a stairwell just outside the Grand Ballroom which will lead directly to the meeting rooms. The elevator will also access the 3rd floor meeting rooms from the 2nd floor.



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Vendors Participating the LRIG-New England Fall Exhibition and Symposium:

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TTP LabTech Inc
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USA Scientific Inc
Viaflo Corporation

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Vendor Workshop Schedule and Agenda:

We strongly suggest you try to attend the Workshop being presented during the exhibition. The workshops will held in the Dana and Longfellow rooms located on the floor above the exhibition space. Signs will be posted to the stairs/elevators to direct you to the rooms. Below is the current schedule including abstracts:

	Longfellow Room	Dana Room
3:30	RTS	OPEN
4:00	Corning	CisBio
4:30	Lonza	MUSA
5:00	Perkin Elmer	Molecular Devices
5:30	Caliper	Biotek

LongFellow Room Workshops:

3:30pm

RTS

Larry Chin, Ph.D

The effective use of Machine Vision and Video Monitoring in Lab Automation

RTS Life Sciences will be presenting two new and exciting products utilizing machine vision based technologies. These systems, the **Tube Auditor** and the **Lab Eye** are designed to increase laboratory efficiency by automating or eliminating manual visual inspections. RTS will have live demonstrations of both systems at our presentation.

4:00pm

Corning

Todd Upton, Ph.D

Automated High Throughput Screening With Corning Epic: Real World Examples

The Corning Epic system is designed to be integrated into automated high throughput platforms for outputs of ~40,000 data points per 8 hour day. This session will describe the results of several high throughput screens performed in both biochemical and cell based assay formats with directed compound libraries ranging from 20,000 to 150,000 compounds. Assay development, results and performance will be described

4:30pm

Lonza

George Alberts, PhD Application Scientist

High Throughput Transfection of DNAs and siRNAs into Primary Cells and Difficult-to-Transfect Cell Lines

The Amaxa Nucleofector technology is a novel Transfection technology based on a

unique combination of electrical parameters and cell-type specific solutions, and is extremely versatile, with the ability to transfect plasmid DNA, oligonucleotides, siRNAs, mRNA, and even peptides, with high Transfection efficiencies and cell viabilities. This allows researchers to use the most physiologically-relevant primary cells, or cell lines that more closely depict relevant disease states in their automated or manual screens. Optimized protocols are available for many primary cell types, while our Basic Nucleofector kits allow the researcher to optimize protocols for a wide variety of primary cell types

Transfections can be done in a medium throughput 96-well format using our 96-Well Shuttle System, or in a true high throughput manner using our new 384 HT Nucleofector. The 384 HT Nucleofector can transfect a 384-well plate in one minute, and thanks to its rotating carousel, plates can be loaded and unloaded while another plate is being transfected. Thus, the maximum throughput of the 384 HT Nucleofector is around 60 plates an hour.

The 96-well and 384-well devices use the same reagents and programs, which allow easy transitions from assay development to full high-throughput Transfection. Both devices can be fully automated and have comparable Transfection efficiencies. Data will be presented demonstrating plasmid Transfection efficiencies and functional siRNA-induced gene repression, in a wide variety of primary cell types and cell lines

5:00

Perkin Elmer

Roger Bosse

Improving Automated Biomarker Screening Using the JANUS AlphaLISA Workstation

There are increasing needs to automate biomarker detection in a variety of laboratories involved in drug discovery and development, and life science research. Enzyme-linked immunosorbent assays (ELISAs) are routinely used to determine biomarker concentration, but their limitations include: high cost, low throughput, limited dynamic range and questionable reproducibility. Furthermore, ELISAs are labor-intensive and difficult to automate due to numerous blocking and wash steps required for their execution.

PerkinElmer's AlphaLISA® is an ultrasensitive homogeneous "all-in-one-well" immunoassay technology capable of detecting a wide variety of biomarkers. AlphaLISA assays are highly sensitive and specific, and can be formatted in 96-, 384-, and 1536 well microplates. Contrasting with traditional ELISA, AlphaLISA uses smaller sample volume and features increased dynamic range and reproducibility. Because AlphaLISA assays are homogeneous, they can be easily automated which allows for enhanced sample preparation consistency and reliability, ensuring high quality data. The JANUS® AlphaLISA Workstation was designed to perform automated AlphaLISA assays. The JANUS system is available in different configurations to satisfy user needs: it can be configured according to the level of throughput, integration needs, and deck capacity requirements. During this presentation, AlphaLISA performance with JANUS Modular Dispense Technology® (MDT) automated sample preparation will be discussed. Data from interferon gamma (IFNγ) and interleukin 17 (IL 17) cytokine AlphaLISA assays prepared with the high throughput JANUS MDT head and the flexible SDTool will be compared with assays prepared manually.

5:30pm

Caliper

Laurel Provencher, Ph.D

SWAP – A High Throughput Automated Microfluidic Alternative to Western Blotting

Identification and quantification of expressed proteins in crude cell lysates or supernatants often requires the use of western blots or ELISA analysis. While data from western blots reliably shows the relative quantity and the size of the target proteins, the methods are not amenable to automation. ELISA analysis, while automation-friendly, does not give information on the size or integrity of target proteins. The SWAP assay (Substitute Western Affinity Purification) is a fully automatable method that provides information on the size, integrity, and relative concentration of the target. This 96-well format assay combines affinity purification, covalent dye-labeling of proteins, and analysis on the Caliper GX microfluidic electrophoresis system. Affinity purification can be achieved through a variety of automation-friendly methods, including capture with magnetic beads, resin-filled tips, or vacuum filtration. As an example, GST-tagged proteins were detected and quantified via immunoprecipitation and Protein A magnetic bead antibody capture. All liquid handling steps were performed by a Zephyr liquid handler equipped with a plate shaker and a 96-well magnetic plate. Target proteins at concentrations down to 250 pg/uL were reliably detected with the SWAP assay.

Dana Room:

3:30pm

Open

4:00pm

CisBio

Suzanne Paolini

HTRF phosphorylated protein assays – Activate, lyse, detect

4:30pm

MUSA

George Wilgram

LabSpeed LS: A Laboratory Instrument Data Integration Solution

Our workshop will provide a live demonstration of LabSpeed LS™, a data integration and results analysis software solution for laboratory instruments. Attendee's will be able to learn about LabSpeed LS's modular template driven architecture which makes charting, reporting, exporting, monitoring, validating, sharing and analyzing results easy, without requiring any programming experience. The demo will be followed by a Q&A session where we will answer any questions and/or provide examples how LabSpeed LS may solve common data handling challenges.

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5:00pm

Molecular Devices

Karen Cook

The IonWorks Barracuda System:A 384-Channel Parallel Patch-Clamp System for Ligand- and Voltage-Gated Ion Channels

The IonWorks Barracuda system allows simultaneous and continuous measurement of either ligand-gated ion channels (LGICs) or voltage-gated ion channels (VGICs) at 384 separate recording sites. The IonWorks Barracuda system is equipped with 384 individual patch-clamp amplifiers together with a 384-channel fluidic pipettor. Similar to its predecessor, IonWorks Quattro system, IonWorks Barracuda system measures cell membrane currents using the perforated patch clamp technique on a polyimide substrate. Currents are measured using a single hole at each recording site or an array of 64 holes at each site. We examined the performance of IonWorks Barracuda system with several different ion channel types. Data presented here include LGIC recordings of GABA, ASIC, and nicotinic acetylcholine receptor channels, as well as VGIC recordings of NaV, KV and hERG channels.

Vipat Raksakulthai

The IsoCyte: a high speed Laser Scanning Cytometer reading 4 colors, 1536 wells or less, in 2-5 minutes providing object or cellular data.

The **IsoCyte™** laser scanning imager is an automation-friendly system that enables robust real-time assays for microarray, bead, cell, colony classification as well small model organisms. Available in either a single or dual laser configuration; choose from 405, 440, 488, 532, and 640 nm excitation wavelengths. Four emission wavelengths can be detected simultaneously. The platform is "format independent" and can scan an entire plate (6- to 1536-wells microtiter plates or microscope slides) in 2-5 minutes

5:30pm

BioTek

Jason Greene

Compact and Fully Modular 4-Reagent Microplate Dispenser for 6- to 1536-well Formats

BioTek's new Microplate Dispenser is the latest advancement in bulk dispensers offering up to four reagents dispensed in parallel with one compact instrument, taking up less space and eliminating multiple plate movements. Modular peristaltic pump and microprocessor controlled syringe drive dispensers enable customization to specific requirements. Users can purchase what is needed now and add additional dispensers later. This workshop will present an overview of BioTek's new dispenser and its many applications.

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