

MALDI-Mass Spectrometry Imaging of Drug Metabolism

Mark your calendars for **MALDI-Mass Spectrometry Imaging of Drug Metabolism**, a conference sponsored by the University of Maryland Center of Excellence in Regulatory Science and Innovation and the Food and Drug Administration.

Matrix-assisted laser desorption ionization – mass spectrometry imaging (MALDI-MSI) is an analytical technique that allows for spatial characterization of the molecular content of intact tissues or cell culture via mass spectrometry. This analytical approach has been useful for following drug metabolism and mapping drug distribution, as well as for evaluating local cellular changes or side effects of drug substances.

MALDI-Mass Spectrometry Imaging of Drug Metabolism will be held on **Tuesday, April 8, 2014** at the University of Maryland School of Pharmacy, located at 20 N. Pine Street in Baltimore, MD. Topics of discussion may include:

- Using MALDI-MSI to bridge biology and chemistry in drug development
- Using unique cell-based models to study toxicity
- Accessibility of MALDI-MSI technology
- Use of MALDI-MSI for drug distribution studies
- Use of diverse data sources to aid in the prediction of drug action based upon molecular descriptors

Speaker presentations will be followed by a panel discussion on MALDI-MSI as a drug development tool. Discussion will include current challenges, status of adoption by industry, and potential regulatory impact.

For more information, please visit www.pharmacy.umaryland.edu/MALDI.



Registering by mail? Please detach this form and submit it to the address below. All participants can also register online at www.pharmacy.umaryland.edu/MALDI.



MALDI-Mass Spectrometry Imaging of Drug Metabolism

University of Maryland School of Pharmacy
 Attn: Sharese Essien
 20 Penn Street
 HSF II, Room 503B
 Baltimore, MD 21201

Make all checks payable to the **University of Maryland, Baltimore Foundation**.

Please provide the following information:

 Name

 Address

 Phone

 Email

 Title and Company/School/Agency

Please indicate highest degree obtained:

- High School Master's Degree
 Bachelor's Degree Doctorate

Please indicate which category best describes you:

- Faculty, Staff, Student from the University of Maryland, Baltimore or College Park Campus (FREE)
 M-CERSI Industrial Consortia Member (FREE)
 Federal Government Employee (FREE)
 Other Participant (\$50.00)

CONFERENCE AGENDA

April 8, 2014

9:00-10:00 a.m.

Registration and Light Breakfast

10:00-10:15 a.m.

Welcome and Introduction

10:15-10:55 a.m.

MALDI Imaging Mass Spectrometry: A View of Biology and Chemistry in Drug Development

Stephen Castellino, PhD

US Director of Structural ID DMPK

GlaxoSmithKline

10:55-11:35 a.m.

Mass Spectrometry Imaging in Drug Development

Per Andren, PhD

Senior Lecturer, Department of Pharmaceutical Biosciences

University of Uppsala

Uppsala, Sweden

11:35-12:15 p.m.

MALDI-MS Tissue Imaging in Infectious Disease Research: Exploring Alternative Fixation Methods for the Inactivation of Pathogens

Lisa Cazares, PhD

Proteomic Scientist

Army Research Institute of Infectious Disease (USAMRIID)

12:15-1:15 p.m.

Lunch

1:15-1:55 p.m.

Mass Spectrometry Imaging Applications to Tuberculosis Drug Discovery and Development

Brendan Prideaux, PhD

Visiting Researcher

The Public Health Research Institute (PHRI)

Rutgers New Jersey Medical School

1:55-2:35 p.m.

MALDI-Mass Spectrometry Imaging in the Development of Medical Countermeasures Against Radiological Threat

Maureen Kane, PhD

Assistant Professor

Department of Pharmaceutical Sciences

University of Maryland School of Pharmacy

2:35-3:15 p.m.

Imaging Mass Spectrometry: Applications Supporting Drug Discovery and Development

Michelle L. Reyzer, PhD

Research Assistant Professor of Biochemistry

Vanderbilt University

3:15-3:45 p.m.

Panel and Audience Discussion

Topic: Status of MALDI-MSI Adoption as a Drug Development Tool

3:45-4:00 p.m.

Closing Remarks