



## 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](http://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](http://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

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Please indicate highest degree obtained:

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| <input type="checkbox"/> High School       | <input type="checkbox"/> Master's Degree |
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Please indicate which category best describes you:

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|---|
| <input type="checkbox"/> Faculty, Staff, Student from the University of Maryland, Baltimore or College Park Campus (FREE) |
| <input type="checkbox"/> M-CERSI Industrial Consortia Member (FREE)   |
| <input type="checkbox"/> Federal Government Employee (FREE)   |
| <input type="checkbox"/> 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**