



Novatia is pleased to sponsor the following two-day Short Course:

“LC/MS/MS 101”

Monday-Tuesday, October 2nd and 3rd, 2006
Sheraton Bucks County, Langhorne, PA.

You have heard great things about LC/MS and LC/MS/MS, but you're wondering where to start with this technology – this course is the place! This very popular course, taught by Dr. Cecilia Basic of Basic Mass Spec has been attended by several hundred scientists ~ it always receives rave reviews! We are pleased to offer it once again in Langhorne, PA.

For those of you who are not familiar with this course, the objective is quite straightforward: ***To provide the attendee with a concrete understanding of the fundamentals of mass spectrometry, with a focus on liquid chromatography/mass spectrometry (LC/MS) and LC/tandem MS (LC/MS/MS).***

Dr. Basic possesses extensive credentials, effective materials and a presentation style that allows her to walk her students through the fundamentals of this powerful technology.

The details: *The size of the class will be limited. The cost of the 2-day LC/MS/MS 101 course is \$1,295 per person. If you register 5 or more, then the cost is discounted to \$995 per person.* Breakfast and lunch will be provided each day. Training materials and a training certificate (including Dr. Basic's credentials) will also be provided.

To attend: Simply fill out the attached registration form (page 2) and return. A confirmation of your registration will be faxed back to you *within 3 working days.*

Should you need hotel reservation at the Sheraton Bucks County
please contact the hotel directly at 215-547-4100.

Please do not hesitate to contact Charles Tirendi with questions at 732-274-9933 (x102).

LC/MS/MS 101 2-Day Short Course – Langhorne, PA

Date: Monday - Tuesday, October 2nd –3rd, 2006
Location: Sheraton Bucks County, Langhorne, PA
Time: 8:30 am to 4:30 pm
Cost: \$1295 per registrant (quantity discounts available – see above)

Registration: If paying by check (make payable to Novatia):

Attn. Charles Tirendi
11 Deer Park Drive, Suite 202
Monmouth Junction, NJ 08852
(732) 274-9933 (x102)

If paying by credit card:

Please mail registration form to above address or fax to 732-274-9935.

Registrant Information:

Name/Title: _____

Company/Organization: _____

Business Address (incl. mail stop or dept.): _____

City: _____ State: _____ Zip Code: _____

Work Phone: _____ Ext: _____

Fax* (Required): _____

**A fax number is required to confirm your reservation and payment.*

Form of Payment:

Check Enclosed (Payable to Novatia)

MasterCard VISA American Express

Credit Card** #: _____

Expiration Date: _____

Card Holder Name: _____

Card Holder Signature: _____

***Your credit card will be charged upon receipt of registration form.*

Syllabus follows

LC/MS/MS 101

2-Day Short Course

Focuses on the fundamentals of LC/MS and LC/tandem mass spectrometry (LC/MS/MS) instrumentation and methods. The course provides a description of the operating principles of state-of-the-art LC/mass spectrometers and LC/tandem mass spectrometers with a focus on triple quadrupole (QqQ), quadrupole ion trap (QITMS) and quadrupole-time-of-flight (QqTOF) instruments coupled to the atmospheric pressure ionization methods of electrospray (ESI) and atmospheric pressure chemical ionization (APCI).

DAY 1

8:30 – 8:40 a.m.

WELCOME AND GENERAL INTRODUCTION

8:40 - 10:15 a.m.

LIQUID CHROMATOGRAPHY/MASS SPECTROMETRY

Mass Spectrum

Calculating Molecular Mass

Mass Spec Units

Types of Ions in a Mass Spectrum

Molecular ions

Fragment ions

Background ions

10:15 – 10:30 a.m. COFFEE BREAK

10:30 a.m. – 12:00 p.m.

Profile vs. Centroid Mass Spectra

Ion velocity distributions

LC/MS/MS INSTRUMENTS

Vacuum System

Vacuum pumps and chambers

Pressure sensing devices

Sample Inlet

LC/MS interface region

12:00 – 1:00 p.m. LUNCH

1:00 – 2:30 p.m.

Ion Source

Electrospray ionization (ESI)

Atmospheric pressure chemical ionization (APCI)

ESI versus APCI

Coupling API to LC

Ion Optics

Einsel and tube lenses

Ion guides

Tuning

In-source collision-induced dissociation (CID)

2:30 – 2:45 p.m. COFFEE BREAK

2:45 – 4:30 p.m.

Detector

Point detectors (multipliers)

Plate (array) detectors

Mass Analyzers

Resolution and Accurate mass measurements

Sensitivity and Selectivity

LC/MS/MS 101

2-Day Short Course

DAY 2

8:30 - 10:15 a.m.

LC/MS/MS INSTRUMENTS – continued

Mass Analyzers - continued

Quadrupole mass filters (Q)

Quadrupole ion traps (QITMS)

10:15 – 10:30 a.m. COFFEE BREAK

10:30 a.m. – 12:00 p.m.

Time-of-flights

Comparison of Q's, QITMS's and TOF's

Computer Control and Data Systems

Tuning

Calibrating

Collecting and manipulating data

12:00 – 1:00 p.m. LUNCH

1:00 – 2:30 p.m.

MS SCAN METHODS

Conventional Scans

Tandem MS (MS/MS)

Collision-Induced Dissociation (CID)

Metastable Ion Decomposition

MS/MS Scans

2:30 – 2:45 p.m. COFFEE BREAK

2:45 – 3:45 p.m.

TANDEM MASS SPECTROMETERS

Triple Quadrupoles (QqQ)

Time of Flights (TOF)

Quadrupole TOF Hybrid Mass Spectrometers (QTOF)

Quadrupole Ion Traps (QITMS)

Comparison of QqQ vs. QITMS vs. QTOF

3:45 – 4:30 p.m.

LC/MS/MS APPROACHES TO SCREENING AND IDENTIFYING DRUG METABOLITES

The Instructor

Dr. Cecilia Basic received her Ph.D. in analytical mass spectrometry under the supervision of Dr. Richard A. Yost at the University of Florida and her M.Sc. degree in mass spectrometry under the supervision of Dr. Alex Harrison at the University of Toronto. She has over 15 years of experience in mass spectrometry fundamentals and applications and has published numerous research articles and book chapters.

Dr. Basic has been conducting training courses on the fundamentals and applications of mass spectrometry for over 5 years and has also provided hands-on LC/MS/MS training sessions. Clients have included: Bristol-Myers Squibb, Merck and Co., Amgen, Quest Diagnostics, Novatia LLC, FMC Corporation, DuPont Agriculture, Thermo Electron, and Waters/Micromass

In addition to her workshops, she is currently an instructor of the Department of Chemistry's Distance Education Course "Mass Spectrometry in the Pharmaceutical Industry" at Lehigh University and is a past professor at Villanova University. Dr. Basic has also worked as a Visiting Scientist in the Division of Immunology at the Beckman Research Institute at the City of Hope and as a scientist at NASA's Jet Propulsion Laboratory.

She is a member of the American Society for Mass Spectrometry's (ASMS) Education Committee and is a co-instructor of the ASMS annual Short-Course "Quantitative Mass Spectrometry." She was also an invited co-instructor for the 2003 International Society for the Study of Xenobiotics (ISSX) Short Course "Metabolite Structure Elucidation."