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Please sign up for the meeting at the registration desk

Sunday Evening, July 22, 2006

6:00 - 7:30 p.m. LECO

Location: Banyan Room

Presenter: Don Hilton

Advantages of Rapid Analysis Mass Spectrometry (RAMS) for Pesticide Screening: Introducing the new LECO TruTOF™ HT GCMS and the Unique® HT LCMS

Topic 1: The Application of True Signal Deconvolution™ and the fast spectral acquisition of the Pegasus® HT GC-TOFMS and the Unique® HT LC-TOFMS for improved screening, identification and quantification.

Description: Skew free time of flight spectra plus fast spectral acquisition rates make True Signal Deconvolution™ possible. How these advantages benefit unknown investigations as well as target compound approaches.

Topic 2: Introducing the bench top TruTOF™ HT GCMS from LECO – Instrument Business Outlook's New Product of the Year – ASMS 2007

Description: The first affordable bench top GC-TOFMS. With the advantages of True Signal Deconvolution™ and fast spectral acquisition in a bench top design LECO can help your laboratory reach its optimal productivity.

Monday Lunchtime, July 23, 2006

12:15 - 1:15 p.m. Waters

Location: Banyan Room

Presenters: Aisling M. O'Connor and Joe Romano

Ultra-performance liquid chromatography with polarity switching tandem quadrupole mass spectrometry for the determination of pesticide residues in baby foods

A fast, simple, robust UPLC/MS/MS method has been developed for the analysis and confirmation of 52 pesticides in various baby food matrices. Chromatographic separation was achieved using a 1.7µm particle size column (50 mm length) with a total cycle time of less than 10 minutes. Polarity switching during MS acquisition allowed the determination of 44 compounds which ionize in positive ion mode and 8 which ionize in negative ion mode during a single chromatographic run. The use of very short dwell times of 5 ms was found to have no effect on signal intensity, indicating that sensitivity can be maintained while monitoring over 100 MRM transitions during a single run.

12:15 - 1:15 p.m. Thermo Fisher Scientific

Location: Citrus Room

Presenter: Dr. Jonathan Beck

Topic 1: Quantitation Enhanced Data Dependant MS, the Simultaneous Collection of Quantitative and Qualitative Triple Quadrupole Data in One Analysis

The Quantitation Enhanced Data Dependant (QED) scan function allows for the simultaneous collection of full scan Q3 data for qualification and SRM data for quantitation. QED provides additional data that can be used to help eliminate false positives by providing full scan Q3 spectra that can be library searched, or used for ion ratio calculations. Data will be shown demonstrating the utilization of the QED scan function on food and environmental samples for pesticides and other banned or regulated compounds.

Presenter: Eric Phillips

Topic 2: Optimization of Extraction and Injection Phases of the Analysis of Pesticides in Produce by GCMS

The author will give an overview of some injection techniques available with optimization tips for the operation of each. The results of the study of the analysis of a specific list of pesticides in apples with varying functional groups will be given by injection using a conventional split/splitless injector in the splitless mode and a temperature programmable injector operated in the following modes: constant temperature splitless mode, temperature programmed splitless mode, temperature programmed with surge pressure splitless mode and the large volume splitless mode. The injection efficiencies will be compared as well as the handling of the matrix. A discussion on sample preparation and clean up procedures will be given.

Tuesday Breakfast, July 24, 2006

7:30 - 8:15 a.m. Chromsys

Location: Citrus Room

Presenter: Ingo Christ

Analysis of QuEChERS samples using GC-MS/MS

By adding a proprietary Ion Rail collision cell and another high precision quadrupole, serving as mass filter Q3, the Agilent 5973 / 5975 Series is easily upgraded to a triple quadrupole instrument, the Chromtech Evolution. Using multiple reaction monitoring (MRM) is the most sensitive and selective technique to quantitate low levels of target compounds, especially in the presence of high background.

Tuesday Lunchtime, July 24, 2006

12:15 - 1:15 p.m. Agilent Technologies

Location: Blue Heron Room

Presenter: Dr. Jerry Zweigenbaum

Topic 1: Screening and Confirmation of Multi-Residue Pesticide Analysis: LC/TOF-MS or LC/QqQ-MS

Presenter: Dr. Philip Wylie

Topic 2: Introducing the Agilent 7890/5975C GC/MSD with New Tools for Pesticide Analysis

Agilent's noon-time seminar will discuss the most important tools needed for pesticide analysis. Part 1 will describe the use of HPLC combined with triple quadrupole (LC/QqQ-MS) or time-of-flight mass spectrometry (LC/TOF-MS) for screening, quantitation and confirmation of 100s of pesticides. The advantages and disadvantages of each and suggested workflow for the analysis with appropriate QA/QC procedures will be discussed. Part 2 will highlight Agilent's new 7890A/5975C GC/MSD, which fully embraces Capillary Flow Technology. Emphasis will be placed on techniques that improve a laboratory's efficiency and accuracy of analysis.

12:15 - 1:15 p.m. SPEX

Location: Banyan Room

Presenter: Dr. Tom Mancuso

Calibration Strategies and Dilution Practices

This presentation covers good strategies for analytical calibrations focusing on chromatographic techniques. Discussed in detail are the uncertainties involved in various dilution practices, as well as a method of calculating uncertainties for USEPA method 8081. We have observed over the years that chemists use a variety of techniques to dilute solutions and calibrate instruments. We have also observed that many techniques in common practice contain an unacceptable amount of error and uncertainty. We wish to promote good laboratory practices and reduce the errors at the bench. The goal is to show calculations, uncertainties and lab practices that will help chemists make better measurements, or understand why they do so well.

Wednesday Lunchtime, July 25, 2006

12:15 - 1:15 p.m. Applied Biosystems

Location: Banyan Room

Presenter: André Schreiber

LC/MS/MS Based Strategies for High Throughput Pesticide Screening and Quantitation

The following workshop will discuss different LC/MS/MS strategies for high throughput pesticide screening and quantitation including the use of direct injection, on-line SPE and libraries. New tools available to reduce the complexity of analysis will also be discussed.