



**Lunch-time Workshop Presented by Thermo Electron**  
**Extending the Reach of Proteomics with ETD: Improved Protein Coverage,  
Phosphopeptide Detection and Intact Protein Analysis**

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**Abstract:**

Thermo's new ETD (Electron Transfer Dissociation) technology is a "landmark advance in the field of proteomics" according to Dr. Don Hunt, inventor of the method at the University of Virginia. Licensed exclusively to Thermo, ETD is a novel method for fragmentation of peptides in an ion trap mass spectrometer which produces c- and z-type fragment ions. Practically, ETD is highly complementary with CID, the traditional method for peptide analysis. ETD has added advantages for PTM analysis – it preserves labile sites of phosphorylation and glycosylation. ETD also offers interesting new approaches to the analysis of intact proteins – it preferentially dissociates large peptides.

The ultra-sensitive, fast cycle time LTQ XL™ linear ion trap mass spectrometer can rapidly alternate CID and ETD scans during LC/MS analyses. The combined results from this experiment offer a potent new approach to protein discovery and PTM characterization. Results will be shown where the facile, combined use of CID and ETD on real world samples increase the number of proteins identified, improve the confidence in these identifications, yield important new views of the phosphoproteome, and enable powerful new approaches to the analysis of intact proteins.

**Biography**

Ken Miller is a graduate of Stanford University and University of California at Berkeley. Mr. Miller has over 20 years of experience with protein analysis in both industry and academia. With expertise in protein expression, purification, and characterization, he has participated in many research projects and in pharmaceutical research and development. He has spent the past 4 years as Marketing Manager for Thermo Electron's proteomics programs, supporting a global network of collaborators and actively participating in development of programs for protein analysis, protein quantification, and biomarker discovery.

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