



National Cancer Institute
National Institutes of Health
U.S. Department of Health and Human Services
National Institute of Standards and Technology

NIST

NCI/NIST Workshop for Next-Generation Methods of Peptide Identification

November 15, 2007

*National Institute of Standards and Technology
Building 227, Room 202
Gaithersburg, Maryland*

AGENDA

Objective: To bring together thought-leaders and stakeholders in the proteomics community to identify needs, strategies, and solutions for peptide identification by mass spectrometry

8:00 a.m. - 8:30 a.m.

Break

8:30 a.m. - 8:40 a.m.

Welcome

Henry Rodriguez, Ph.D.
National Cancer Institute, NIH

Stephen Stein, Ph.D.
National Institute of Standards and Technology

Christopher Kinsinger, Ph.D.
National Cancer Institute, NIH

Plenary Lecture

8:40 a.m. - 9:20 a.m.

Proteomics 2.0 – better, faster, cheaper

Ronald Beavis, Ph.D.
University of British Columbia

Identification Methods Session (25-minute talks; 15-minute discussion)

9:20 a.m. - 10:00 a.m.

Refining Peptide Fragmentation Models for Improved Confidence in Sequence/Spectrum Matching

Karl Clauser, Ph.D.
Broad Institute of MIT and Harvard

10:00 a.m. - 10:40 a.m.

Roles for Sequence Tagging in Protein Identification

David Tabb, Ph.D.
Vanderbilt University School of Medicine

10:40 a.m. - 10:55 a.m.

Break

10:55 a.m. - 11:35 a.m.

Physical Models for Predicting Peptide Fragmentation Spectra

Zhongqi Zhang, Ph.D.
AMGEN

- 11:35 a.m. - 12:15 p.m. **Spectrum Library Building and Searching**
Henry Lam, Ph.D.
Institute for Systems Biology
- 12:15 p.m. - 1:30 p.m. **Lunch**
- 1:30 p.m. - 2:10 p.m. **Assigning Confidence to a Peptide ID**
Alexey Nesvizhskii, Ph.D.
University of Michigan
- 2:10 p.m. - 2:50 p.m. **Combining MS/MS Sequence and Spectral Library Search Algorithms**
Lewis Geer, Ph.D.
National Center for Biotechnology Information, NIH
- 2:50 p.m. - 3:05 p.m. **Break**
- User Community Session (20-minute talks; 10-minute discussion)*
- 3:05 p.m. - 3:35 p.m. **Perspective and Progress in Protein and Peptide Identification**
Sean Seymour, Ph.D.
Applied Biosystems
- 3:35 p.m. - 4:05 p.m. **Getting Your Software Out There**
Brian Searle
Proteome Software Inc.
- 4:05 p.m. - 4:35 p.m. **Open-Source Software**
Phil Andrews, Ph.D.
University of Michigan
- Panel Discussion*
- 4:35 p.m. - 5:00 p.m. **Discussion of Next Steps and Closing Remarks**
- 5:00 p.m. **Adjournment**