



Table of Contents

This issue and full Instructions to Authors are available in electronic form at <http://www.mcponline.org>

Research

- 1167 **Identification of New p53 Acetylation Sites in COS-1 Cells**
Anita Joubel, Robert J. Chalkley, Katalin F. Medzihradzky, Hubert Hondermarck, and Alma L. Burlingame
- 1174 **Identification of *Bacillus anthracis* Spore Component Antigens Conserved across Diverse *Bacillus cereus sensu lato* Strains**
[S] *Sanghamitra Mukhopadhyay, Arya Akmal, Andrew C. Stewart, Ru-ching Hsia, and Timothy D. Read*
- 1192 **Exosomal Secretion of Cytoplasmic Prostate Cancer Xenograft-derived Proteins**
[S] *Flip H. Jansen, Jeroen Krijgsveld, Angélique van Rijswijk, Gert-Jan van den Bemd, Mirella S. van den Berg, Wytske M. van Weerden, Rob Willemsen, Lennard J. Dekker, Theo M. Luider, and Guido Jenster*
- 1206 **The Thioredoxin-like Protein Rod-derived Cone Viability Factor (RdCVFL) Interacts with TAU and Inhibits Its Phosphorylation in the Retina**
[S] *Ram Fridlich, Francois Delalande, Céline Jaillard, Jun Lu, Laetitia Poidevin, Thérèse Cronin, Ludivine Perrocheau, Géraldine Millet-Puel, Marie-Laure Niepon, Olivier Poch, Arne Holmgren, Alain Van Dorsselaer, Jose-Alain Sahel, and Thierry Léveillard*
- 1219 **Enhancing Identifications of Lipid-embedded Proteins by Mass Spectrometry for Improved Mapping of Endothelial Plasma Membranes *in Vivo***
[S] *Yan Li, Jingyi Yu, Yipeng Wang, Noelle M. Griffin, Fred Long, Sabrina Shore, Phil Oh, and Jan E. Schnitzer*
- 1236 **Excretory/Secretory Proteome of the Adult Developmental Stage of Human Blood Fluke, *Schistosoma japonicum***
[S] *Feng Liu, Shu-Jian Cui, Wei Hu, Zheng Feng, Zhi-Qin Wang, and Ze-Guang Han*
- 1252 **From Secretome Analysis to Immunology: Chitosan Induces Major Alterations in the Activation of Dendritic Cells via a TLR4-dependent Mechanism**
[S] *Christian Villiers, Mireille Chevallet, Hélène Diemer, Rachel Couderc, Heidi Freitas, Alain Van Dorsselaer, Patrice N. Marche, and Thierry Rabilloud*
- 1265 **Differential Permeabilization Effects of Ca²⁺ and Valinomycin on the Inner and Outer Mitochondrial Membranes as Revealed by Proteomics Analysis of Proteins Released from Mitochondria**
[S] *Akiko Yamada, Takenori Yamamoto, Naoshi Yamazaki, Kikuji Yamashita, Masatoshi Kataoka, Toshihiko Nagata, Hiroshi Terada, and Yasuo Shinohara*

On the cover: A tandem mass spectrum and its spectral profile. A spectral profile is a compact probabilistic representation of all high-scoring spectral interpretations of a tandem mass spectrum. It reveals the variable spectral quality along the peptide length and can be used to sequence gapped peptides that are longer and more accurate than peptide sequence tags. For details, see the article by Kim *et al.*, pages 1391–1400.

- 1278 **Identification of a Putative Protein Profile Associated with Tamoxifen Therapy Resistance in Breast Cancer**
 [S] %
Arzu Umar, Hyuk Kang, Annemieke M. Timmermans, Maxime P. Look, Marion E. Meijer-van Gelder, Michael A. den Bakker, Navdeep Jaitly, John W. M. Martens, Theo M. Luider, John A. Foekens, and Ljiljana Paša-Tolić
- 1295 **The Organelle Proteome of the DT40 Lymphocyte Cell Line**
 [S]
Stephanie L. Hall, Svenja Hester, Julian L. Griffin, Kathryn S. Lilley, and Antony P. Jackson
- 1306 **Changes in the Spinal Cord Proteome of an Amyotrophic Lateral Sclerosis Murine Model Determined by Differential In-gel Electrophoresis**
 [S]
Daniel Bergemalm, Karin Forsberg, P. Andreas Jonsson, Karin S. Graffmo, Thomas Brännström, Peter M. Andersen, Henrik Antti, and Stefan L. Marklund
- 1318 **Combination of MS Protein Identification and Bioassay of Chromatographic Fractions to Identify Biologically Active Substances from Complex Protein Sources**
 [S]
Sadao Kuromitsu, Hiroyuki Yokota, Masashi Hiramoto, Masatoshi Yuri, Masanori Naitou, Naoto Nakamura, Shigeki Kawabata, Masato Kobori, Masao Katoh, Kiyoshi Furuchi, Haruhisa Mita, and Tetsuo Yamada
- 1324 **MitoMiner, an Integrated Database for the Storage and Analysis of Mitochondrial Proteomics Data**
 %
Anthony C. Smith and Alan J. Robinson
- 1338 **Assessing Susceptibility to Age-related Macular Degeneration with Proteomic and Genomic Biomarkers**
 %
Jiayin Gu, Gayle J. T. Pauer, Xiuzhen Yue, Umadevi Narendra, Gwen M. Sturgill, James Bena, Xiaorong Gu, Neal S. Peachey, Robert G. Salomon, Stephanie A. Hagstrom, John W. Crabb, and the Clinical Genomic and Proteomic AMD Study Group
- 1350 **Novel Activities of Glycolytic Enzymes in *Bacillus subtilis*: Interactions with Essential Proteins Involved in mRNA Processing**
 [S]
Fabian M. Commichau, Fabian M. Rothe, Christina Herzberg, Eva Wagner, Daniel Hellwig, Martin Lehnik-Habrink, Elke Hammer, Uwe Völker, and Jörg Stülke
- 1361 **A Complex-based Reconstruction of the *Saccharomyces cerevisiae* Interactome**
 [S] %
Haidong Wang, Boyko Kakaradov, Sean R. Collins, Lena Karotki, Dorothea Fiedler, Michael Shales, Kevan M. Shokat, Tobias C. Walther, Nevan J. Krogan, and Daphne Koller
- 1382 **Novel Proteomics Strategy Brings Insight into the Prevalence of SUMO-2 Target Sites**
 [S]
Henri A. Blomster, Ville Hietakangas, Jianmin Wu, Petri Kouvonen, Sampsa Hautaniemi, and Lea Sistonen
- 1391 **Spectral Profiles, a Novel Representation of Tandem Mass Spectra and Their Applications for *de Novo* Peptide Sequencing and Identification**
 [S]
Sangtae Kim, Nuno Bandeira, and Pavel A. Pevzner
- 1401 **Proteomics Analysis of Epithelial Cells Reprogrammed in Cell-free Extract**
 [S]
Emma Pewsey, Christine Bruce, A. Stephen Georgiou, Mark Jones, Duncan Baker, Saw Yen Ow, Phillip C. Wright, Christel K. Freberg, Philippe Collas, and Alireza Fazeli
- 1413 **Unifying Fluorescence Microscopy and Mass Spectrometry for Studying Protein Complexes in Cells**
 [S]
Changhui Deng, Xinghua Xiong, and Andrew N. Krutchinsky
- 1424 **Functional and Complementary Phosphorylation State Attributes of Human Insulin-like Growth Factor-Binding Protein-1 (IGFBP-1) Isoforms Resolved by Free Flow Electrophoresis**
Mikkel Nissum, Majida Abu Shehab, Ute Sukop, Javad M. Khosravi, Robert Wildgruber, Christoph Eckerskorn, Victor K. M. Han, and Madhulika B. Gupta

- 1436 **Metastasis-related Plasma Membrane Proteins of Human Breast Cancer Cells Identified by Comparative Quantitative Mass Spectrometry**
Rikke Leth-Larsen, Rikke Lund, Helle V. Hansen, Anne-Vibeke Laenkholm, David Tarin, Ole N. Jensen, and Henrik J. Ditzel

HUPO Views

- 1450 **Report on the Barbados Workshop**
Sylvie Ouellette, Alexander W. Bell, Jan van Oostrum, and John Bergeron