



## Table of Contents

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

### Research

- 2201 **Proteomics Characterization of Cell Membrane Blebs in Human Retinal Pigment Epithelium Cells**  
[S] Oscar Alcazar, Adam M. Hawkridge, Timothy S. Collier, Scott W. Cousins, Sanjoy K. Bhattacharya, David C. Muddiman, and Maria E. Marin-Castano
- 2212 **Nuclear Receptor-Coregulator Interaction Profiling Identifies TRIP3 as a Novel Peroxisome Proliferator-activated Receptor  $\gamma$  Cofactor**  
[S] Arjen Koppen, Rene Houtman, Dirk Pijnenburg, Ellen H. Jeninga, Rob Ruijtenbeek, and Eric Kalkhoven
- 2227 **Normalization and Statistical Analysis of Quantitative Proteomics Data Generated by Metabolic Labeling**  
[S] Lily Ting, Mark J. Cowley, Seah Lay Hoon, Michael Guilhaus, Mark J. Raftery, and Ricardo Cavicchioli
- 2243 **Proteomics Analysis of Nucleolar SUMO-1 Target Proteins upon Proteasome Inhibition**  
[S] Vittoria Matafora, Alfonsina D'Amato, Silvia Mori, Francesco Blasi, and Angela Bachi
- 2256 **Identification of Heparin-binding Sites in Proteins by Selective Labeling**  
[S] Alessandro Ori, Paul Free, José Courty, Mark C. Wilkinson, and David G. Fernig
- 2266 **High Throughput Characterization of Combinatorial Histone Codes**  
[S] Nicolas L. Young, Peter A. DiMaggio, Mariana D. Plazas-Mayorca, Richard C. Baliban, Christodoulos A. Floudas, and Benjamin A. Garcia
- 2285 **Development and Evaluation of Normalization Methods for Label-free Relative Quantification of Endogenous Peptides**  
[S] Kim Kultima, Anna Nilsson, Birger Scholz, Uwe L. Rossbach, Maria Fälth, and Per E. André
- 2296 **Identification and Validation of Urinary Biomarkers for Differential Diagnosis and Evaluation of Therapeutic Intervention in Anti-neutrophil Cytoplasmic Antibody-associated Vasculitis**  
[S] Marion Haubitz, David M. Good, Alexander Woywodt, Hermann Haller, Harald Rupprecht, Dan Theodorescu, Mohammed Dakna, Joshua J. Coon, and Harald Mischak
- 2308 **A Mediator of Rho-dependent Invasion Moonlights as a Methionine Salvage Enzyme**  
[S] † Yukihito Kabuyama, Elizabeth S. Litman, Paul D. Templeton, Sandra I. Metzner, Eric S. Witze, Gretchen M. Argast, Stephen J. Langer, Kirsi Polvinen, Yiqun Shellman, Daniel Chan, John B. Shabb, James E. Fitzpatrick, Katheryn A. Resing, Marcelo C. Sousa, and Natalie G. Ahn
- 2321 **Proteomics Analysis of *Lactobacillus casei* Zhang, a New Probiotic Bacterium Isolated from Traditional Home-made Koumiss in Inner Mongolia of China**  
[S] Rina Wu, Weiwei Wang, Dongliang Yu, Wenyi Zhang, Yan Li, Zhihong Sun, Junrui Wu, He Meng, and Heping Zhang

On the cover: Urinary peptides (depicted based on mass, migration time, and signal intensity) detected by capillary-electrophoresis coupled ESI-TOF in the urine of patients with ANCA-associated vasculitis (AAV). Several of these peptides can be utilized as biomarkers in disease, as evident from the distribution in samples from controls and patients after therapy, shown below. For details, see the article by Haubitz *et al.*, pages 2296–2307.

- 2339 **Quantification of Cardiovascular Biomarkers in Patient Plasma by Targeted Mass Spectrometry and Stable Isotope Dilution**  
[S] *Hasmik Keshishian, Terri Addona, Michael Burgess, D. R. Mani, Xu Shi, Eric Kuhn, Marc S. Sabatine, Robert E. Gerszten, and Steven A. Carr*
- 2350 **An Integrated Approach of Differential Mass Spectrometry and Gene Ontology Analysis Identified Novel Proteins Regulating Neuronal Differentiation and Survival**  
[S] *Daiki Kobayashi, Jiro Kumagai, Takashi Morikawa, Masayo Wilson-Morifuji, Anthony Wilson, Atsushi Irie, and Norie Araki*
- 2368 ***In Planta* Proteomics and Proteogenomics of the Biotrophic Barley Fungal Pathogen *Blumeria graminis f. sp. hordei***  
[S] *Laurence V. Bindschedler, Timothy A. Burgis, Davinia J. S. Mills, Jenny T. C. Ho, Rainer Cramer, and Pietro D. Spanu*
- 2382 **Identification of Tumor-associated Autoantigens for the Diagnosis of Colorectal Cancer in Serum Using High Density Protein Microarrays**  
[S] *Ingrid Babel, Rodrigo Barderas, Ramón Díaz-Uriarte, Jorge Luis Martínez-Torrecuadrada, Marta Sánchez-Carbayo, and J. Ignacio Casal*
- 2396 **Lack of A-factor Production Induces the Expression of Nutrient Scavenging and Stress-related Proteins in *Streptomyces griseus***  
[S] *Zsuzsanna Birkó, Magdalena Swiatek, Emília Szájlí, Katalin F. Medzihradzky, Erik Vijgenboom, András Penyige, Judit Keserű, Gilles P. van Wezel, and Sándor Biró*