



Table of Contents

This issue is available in electronic form at
<http://www.mcponline.org>

Research

- 1359 **Functional Proteomics Identifies Protein-tyrosine Phosphatase 1B as a Target of RhoA Signaling**
[S] *Yukihito Kabuyama, Stephen J. Langer, Kirsi Polvinen, Yoshimi Homma, Katheryn A. Resing, and Natalie G. Ahn*
- 1368 **A High Efficiency Strategy for Binding Property Characterization of Peptide-binding Domains**
[S] *Eli Song, Shijuan Gao, Rui Tian, Sucan Ma, Haiming Huang, Jiayan Guo, Yingna Li, Ling Zhang, and Youhe Gao*
- 1382 **A Quantitative Analysis of *Arabidopsis* Plasma Membrane Using Trypsin-catalyzed ¹⁸O Labeling**
[S] *Clark J. Nelson, Adrian D. Hegeman, Amy C. Harms, and Michael R. Sussman*
- 1396 **Proteomics of Plant Detergent-resistant Membranes**
[S] *Johanne Morel, Stéphane Claverol, Sébastien Mongrand, Fabienne Furt, Jérôme Fromentin, Jean-Jacques Bessoule, Jean-Pierre Blein, and Françoise Simon-Plas*
- 1412 **Environmentally Modulated Phosphoproteome of Photosynthetic Membranes in the Green Alga *Chlamydomonas reinhardtii***
[S] *Maria V. Turkina, Joanna Kargul, Amaya Blanco-Rivero, Arsenio Villarejo, James Barber, and Alexander V. Vener*
- 1426 **Modifications of the Lipoamide-containing Mitochondrial Subproteome in a Yeast Mutant Defective in Cysteine Desulfurase**
[S] *Özlem Önder, Heeyong Yoon, Bianca Naumann, Michael Hippler, Andrew Dancis, and Fevzi Daldal*
- 1437 **Proteomic Identification and Functional Characterization of a Novel ARF6 GTPase-activating Protein, ACAP4**
[S] *Zhiyou Fang, Yong Miao, Xia Ding, Hui Deng, Siqi Liu, Fengsong Wang, Rihong Zhou, Charles Watson, Chuanhai Fu, Qicong Hu, James W. Lillard, Jr., Michael Powell, Yong Chen, John G. Forte, and Xuebiao Yao*
- 1450 **Analysis of the *Salmonella typhimurium* Proteome through Environmental Response toward Infectious Conditions**
Joshua N. Adkins, Heather M. Mottaz, Angela D. Norbeck, Jean K. Gustin, Joanne Rue, Therese R. W. Clauss, Samuel O. Purvine, Karin D. Rodland, Fred Heffron, and Richard D. Smith
- 1462 **Identification and Functional Validation of Novel Autoantigens in Equine Uveitis**
[S] *Cornelia A. Deeg, Dirk Pompetzki, Albert J. Raith, Stefanie M. Hauck, Barbara Amann, Sabine Suppmann, Thomas W. F. Goebel, Ursula Olazabal, Hartmut Gerhards, Sven Reese, Manfred Stangassinger, Bernd Kaspers, and Marius Ueffing*

On the cover, during cell migration, ARF6 orchestrates the interaction between membrane traffic, cell substrate adhesion, and actin reorganization at the leading edge. The means by which ARF6 orchestrates the cell migration have remained elusive. Fang *et al.* have identified a novel ARF6 GTPase-activating protein, ACAP4, essential for cell migration. The cover image is an immunofluorescent montage of HeLa cells stained for ARF6 (green) and ACAP4 (red). For details, see the article by Fang *et al.*, pages 1437–1449.

- 1471 **Proteomics-based Validation of Genomic Data: Applications in Colorectal Cancer Diagnosis**
[S] *Juan Madoz-Gúrpide, Paula López-Serra, Jorge Luis Martínez-Torrecedrada, Lydia Sánchez, Luis Lombardía, and J. Ignacio Casal*
- 1484 **Comparative Immunoproteomics of Identification and Characterization of Virulence Factors from *Helicobacter pylori* Related to Gastric Cancer**
[S] *Yu-Fen Lin, Ming-Shiang Wu, Chia-Che Chang, Sheng-Wei Lin, Jaw-Town Lin, Yuh-Ju Sun, Ding-Shinn Chen, and Lu-Ping Chow*

Technology

- 1497 **Analyzing Proteomes and Protein Function Using Graphical Comparative Analysis of Tandem Mass Spectrometry Results**
K. Jill McAfee, Dexter T. Duncan, Michael Assink, and Andrew J. Link
- 1514 **Proteomics-based Expression Library Screening (PELS): A Novel Method for Rapidly Defining Microbial Immunoproteomes**
[S] *Indira T. Kudva, Bryan Krastins, Haiqing Sheng, Robert W. Griffin, David A. Sarracino, Phillip I. Tarr, Carolyn J. Hovde, Stephen B. Calderwood, and Manohar John*
- 1520 **DivergentSet, a Tool for Picking Non-redundant Sequences from Large Sequence Collections**
Jeremy Widmann, Micah Hamady, and Rob Knight

Information

- 1533 **Calendar**
- 1535 **Instructions to Authors**