



Table of Contents

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

Editorial

- 1779 **Clinical Proteomics**
Julio E. Celis and José M. A. Moreira, Guest Editors

Biomarkers of Diseases & Conditions

Cancer Review

- 1780 **Proteomic Contributions to Personalized Cancer Care**
John M. Koomen, Eric B. Haura, Gerold Bepler, Rebecca Sutphen, Elizabeth R. Remily-Wood, Kaaron Benson, Mohamad Hussein, Lori A. Hazlehurst, Timothy J. Yeatman, Lynne T. Hildreth, Thomas A. Sellers, Paul B. Jacobsen, David A. Fenstermacher, and William S. Dalton

Research

- 1795 **15-Prostaglandin Dehydrogenase Expression Alone or in Combination with ACSM1 Defines a Subgroup of the Apocrine Molecular Subtype of Breast Carcinoma**
Julio E. Celis, Pavel Gromov, Teresa Cabezón, José M. A. Moreira, Esbern Friis, Karin Jirström, Antonio Llombart-Bosch, Vera Timmermans-Wielenga, Fritz Rank, and Irina Gromova
- 1810 **Proteomics Identification of Cyclophilin A as a Potential Prognostic Factor and Therapeutic Target in Endometrial Carcinoma**
Zhengyu Li, Xia Zhao, Shujun Bai, Zhi Wang, Lijuan Chen, Yuquan Wei, and Canhua Huang

Cardiovascular Disease Review

- 1824 **The Role of Proteomics in Clinical Cardiovascular Biomarker Discovery**
Alistair V. G. Edwards, Melanie Y. White, and Stuart J. Cordwell

Research

- 1838 **Unraveling Molecular Complexity of Phosphorylated Human Cardiac Troponin I by Top Down Electron Capture Dissociation/Electron Transfer Dissociation Mass Spectrometry**
Vlad Zabrouskov, Ying Ge, Jae Schwartz, and Jeffery W. Walker

On the cover, incoming patients provide detailed medical histories and consent for research protocols during the process of diagnosis and disease staging. Specimen banking under appropriate conditions is required for translational research, including proteome analysis. Discoveries can be implemented in clinical care to direct the use of different therapies and customize treatment regimens to each patient. For details, see the article by *Koomen et al.*, pages 1780–1794.

Urogenital and Non-urogenital Diseases

Review

- 1850 **Urine in Clinical Proteomics**
Stéphane Decramer, Anne Gonzalez de Peredo, Benjamin Breuil, Harald Mischak, Bernard Monsarrat, Jean-Loup Bascands, and Joost P. Schanstra

Infection in Premature Neonates

Research

- 1863 **Identification of Diagnostic Biomarkers for Infection in Premature Neonates**
Stephen F. Kingsmore, Neil Kennedy, Henry L. Halliday, Jennifer C. Van Velkinburgh, Shengiang Zhong, Vanessa Gabriel, Judith Grant, William D. Beavis, Velizar T. Tchernev, Lorah Perlee, Serguei Lejnine, Brian Grimwade, Martin Sorette, and J. David M. Edgar

Infertility

Review

- 1876 **Sperm Chromatin: Fertile Grounds for Proteomic Discovery of Clinical Tools**
Tammy F. Wu and Diana S. Chu

Pathway Proteomics & Post-translational Modifications

Review

- 1887 **Chemical and Pathway Proteomics: Powerful Tools for Oncology Drug Discovery and Personalized Health Care**
Ulrich Kruse, Marcus Bantscheff, Gerard Drewes, and Carsten Hopf

Research

- 1902 **Laser Capture Microdissection and Protein Microarray Analysis of Human Non-small Cell Lung Cancer: Differential Epidermal Growth Factor Receptor (EGFR) Phosphorylation Events Associated with Mutated EGFR Compared with Wild Type**
Amy J. VanMeter, Adrianna S. Rodriguez, Elise D. Bowman, Jin Jen, Curtis C. Harris, Jianghong Deng, Valerie S. Calvert, Alessandra Silvestri, Claudia Fredolini, Vikas Chandhoke, Emanuel F. Petricoin III, Lance A. Liotta, and Virginia Espina

Review

- 1925 **Metadegradomics: Toward *in Vivo* Quantitative Degradomics of Proteolytic Post-translational Modifications of the Cancer Proteome**
Alain Doucet, Georgina S. Butler, David Rodríguez, Anna Prudova, and Christopher M. Overall

Methodologies

Research

- 1952 **Accurate Inclusion Mass Screening: A Bridge from Unbiased Discovery to Targeted Assay Development for Biomarker Verification**
Jacob D. Jaffe, Hasmik Keshishian, Betty Chang, Theresa A. Addona, Michael A. Gillette, and Steven A. Carr
- 1963 **Enhanced Detection of Low Abundance Human Plasma Proteins Using a Tandem IgY12-SuperMix Immunoaffinity Separation Strategy**
Wei-Jun Qian, David T. Kaleta, Brianne O. Petritis, Hongliang Jiang, Tao Liu, Xu Zhang, Heather M. Mottaz, Susan M. Varnum, David G. Camp II, Lei Huang, Xiangming Fang, Wei-Wei Zhang, and Richard D. Smith

- 1974 **Use of an Immunoaffinity-Mass Spectrometry-based Approach for the Quantification of Protein Biomarkers from Serum Samples of Lung Cancer Patients**
Gordon R. Nicol, Mark Han, Jun Kim, Charles E. Birse, Erin Brand, Anh Nguyen, Mehdi Mesri, William FitzHugh, Patrick Kaminker, Paul A. Moore, Steven M. Ruben, and Tao He
- 1983 **A Multiplexed Quantitative Strategy for Membrane Proteomics: Opportunities for Mining Therapeutic Targets for Autosomal Dominant Polycystic Kidney Disease**
S *Chia-Li Han, Chih-Wei Chien, Wen-Cheng Chen, Yet-Ran Chen, Chien-Peng Wu, Hung Li, and Yu-Ju Chen*
- 1998 **A Portrait of Tissue Phosphoprotein Stability in the Clinical Tissue Procurement Process**
Virginia Espina, Kirsten H. Edmiston, Michael Heiby, Mariaelena Pierobon, Manuela Sciro, Barbara Merritt, Stacey Banks, Jianghong Deng, Amy J. VanMeter, David H. Geho, Lucia Pastore, Joel Sennesh, Emanuel F. Petricoin III, and Lance A. Liotta

Resources

Review

- 2019 **A Genecentric Human Protein Atlas for Expression Profiles Based on Antibodies**
Lisa Berglund, Erik Björling, Per Oksvold, Linn Fagerberg, Anna Asplund, Cristina Al-Khalili Szigyarto, Anja Persson, Jenny Ottosson, Henrik Wernérus, Peter Nilsson, Emma Lundberg, Åsa Sivertsson, Sanjay Navani, Kenneth Wester, Caroline Kampf, Sophia Hober, Fredrik Pontén, and Mathias Uhlén

Research

- 2028 **Antibodypedia, a Portal for Sharing Antibody and Antigen Validation Data**
S *Erik Björling and Mathias Uhlén*

Review

- 2038 **Human Proteinpedia as a Resource for Clinical Proteomics**
Suresh Mathivanan and Akhilesh Pandey

Research

- 2048 **Targeting the Human Cancer Pathway Protein Interaction Network by Structural Genomics**
Yuanpeng Janet Huang, Dehua Hang, Long Jason Lu, Liang Tong, Mark B. Gerstein, and Gaetano T. Montelione

Review

- 2061 **Banking of Biological Fluids for Studies of Disease-associated Protein Biomarkers**
Anne-Sofie Schrohl, Sidse Würtz, Elise Kohn, Rosamonde E. Banks, Hans Jørgen Nielsen, Fred C. G. J. Sweep, and Nils Brünner

HUPO Views

- 2067 **Minimum Reporting Guidelines for Proteomics Released by the Proteomics Standards Initiative**
Andrew R. Jones and Sandra Orchard

Information

- 2069 **Calendar**