

## Report

- 1625 **Realizing the Promise of Reverse Phase Protein Arrays for Clinical, Translational, and Basic Research: A Workshop Report**  
*The RPPA (Reverse Phase Protein Array) Society*  
*Rehan Akbani, Karl-Friedrich Becker, Neil Carragher, Ted Goldstein, Leanne de Koning, Ulrike Korf, Lance Liotta, Gordon B. Mills, Satoshi S. Nishizuka, Michael Pawlak, Emanuel F. Petricoin III, Harvey B. Pollard, Bryan Serrels, and Jingchun Zhu*

## Research

- 1644 **Proteomic Analysis of the Epidermal Growth Factor Receptor (EGFR) Interactome and Post-translational Modifications Associated with Receptor Endocytosis in Response to EGF and Stress**  
[S] *Jiefei Tong, Paul Taylor, and Michael F. Moran*
- 1659 **Identification of Small Ubiquitin-like Modifier Substrates with Diverse Functions Using the *Xenopus* Egg Extract System**  
[S] *Li Ma, Aaron Aslanian, Huaiyu Sun, Mingji Jin, Yu Shi, John R. Yates III, and Tony Hunter*
- 1676 **The Intraviral Protein Interaction Network of Hepatitis C Virus**  
[S] *Nicole Hagen, Karen Bayer, Kathrin Rösch, and Michael Schindler*
- 1690 **Ischemia in Tumors Induces Early and Sustained Phosphorylation Changes in Stress Kinase Pathways but Does Not Affect Global Protein Levels**  
[S] *Philipp Mertins, Feng Yang, Tao Liu, D. R. Mani, Vladislav A. Petyuk, Michael A. Gillette, Karl R. Clauser, Jana W. Qiao, Marina A. Gritsenko, Ronald J. Moore, Douglas A. Levine, Reid Townsend, Petra Erdmann-Gilmore, Jacqueline E. Snider, Sherri R. Davies, Kelly V. Ruggles, David Fenyo, R. Thomas Kitchens, Shunqiang Li, Narciso Olvera, Fanny Dao, Henry Rodriguez, Daniel W. Chan, Daniel Liebler, Forest White, Karin D. Rodland, Gordon B. Mills, Richard D. Smith, Amanda G. Paulovich, Matthew Ellis, and Steven A. Carr*
- 1705 **Enhanced Prediction of Src Homology 2 (SH2) Domain Binding Potentials Using a Fluorescence Polarization-derived c-Met, c-Kit, ErbB, and Androgen Receptor Interactome**  
[S] ✎ *Kin K. Leung, Ronald J. Hause, Jr., John L. Barkinge, Mark F. Ciaccio, Chih-Pin Chuu, and Richard B. Jones*
- 1724 **Modulation of the Chromatin Phosphoproteome by the Haspin Protein Kinase**  
[S] *Alessio Maiolica, Maria de Medina-Redondo, Erwin M. Schoof, Apirat Chaikuad, Fabrizio Villa, Marco Gatti, Siva Jegannathan, Hua Jane Lou, Karel Novy, Simon Hauri, Umut H. Toprak, Franz Herzog, Patrick Meraldi, Lorenza Penengo, Benjamin E. Turk, Stefan Knapp, Rune Linding, and Ruedi Aebersold*

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On the cover: **Top:** Taming the Eye of the beast. Melanoma cells were treated and stained with acridine orange to reveal heterogeneity in response. **Middle:** LC-MRM was performed using HSP90 client proteins as markers of response after treatment. Proteins that increased in expression are shown red and proteins that decreased in expression from treatment are shown green to reveal adaptive resistance mechanisms. **Bottom:** Information from LC-MRM was interpreted to design more effective combinatorial treatment strategies, which were validated in 3D organotypic culture. For details, see the article by Vito W. Rebecca *et al.*, pages 1844–1854.

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- 1741 **Proteomic Analysis of Altered Extracellular Matrix Turnover in Bleomycin-induced Pulmonary Fibrosis**  
 [S] ✎  
*Martin L. Decaris, Michelle Gatmaitan, Simplicia FlorCruz, Flora Luo, Kelvin Li, William E. Holmes, Marc K. Hellerstein, Scott M. Turner, and Claire L. Emson*
- 1753 **Glycoproteomic Analysis of Prostate Cancer Tissues by SWATH Mass Spectrometry Discovers N-acylethanolamine Acid Amidase and Protein Tyrosine Kinase 7 as Signatures for Tumor Aggressiveness**  
 [S] ✎  
*Yansheng Liu, Jing Chen, Atul Sethi, Qing K. Li, Lijun Chen, Ben Collins, Ludovic C. J. Gillet, Bernd Wollscheid, Hui Zhang, and Ruedi Aebersold*
- 1769 **Proteomic Analysis of Intact Flagella of Procyclic *Trypanosoma brucei* Cells Identifies Novel Flagellar Proteins with Unique Sub-localization and Dynamics**  
 [S]  
*Ines Subota, Daria Julkowska, Laetitia Vincensini, Nele Reeg, Johanna Buisson, Thierry Blisnick, Diego Huet, Sylvie Perrot, Julien Santi-Rocca, Magalie Duchateau, Véronique Hourdel, Jean-Claude Rousselle, Nadège Cayet, Abdelkader Namane, Julia Chamot-Rooke, and Philippe Bastin*
- 1787 **Regulation Dynamics of *Leishmania* Differentiation: Deconvoluting Signals and Identifying Phosphorylation Trends**  
 [S]  
*Polina Tsigankov, Pier Federico Gherardini, Manuela Helmer-Citterich, Gerald F. Späth, Peter J. Myler, and Dan Zilberstein*
- 1800 **Stable Isotope Labeling with Amino Acids in Cell Culture (SILAC)-Based Strategy for Proteome-Wide Thermodynamic Analysis of Protein-Ligand Binding Interactions**  
 [S]  
*Duc T. Tran, Jagat Adhikari, and Michael C. Fitzgerald*
- 1814 **Ferritin Heavy Chain in Triple Negative Breast Cancer: A Favorable Prognostic Marker that Relates to a Cluster of Differentiation 8 Positive (CD8+) Effector T-cell Response**  
 [S] ✎  
*Ning Qing Liu, Tommaso De Marchi, Annemieke M. Timmermans, Robin Beekhof, Anita M.A.C. Trapman-Jansen, Renée Foekens, Maxime P. Look, Carolien H. M. van Deurzen, Paul N. Span, Fred C.G.J. Sweep, Julie Benedicte Brask, Vera Timmermans-Wielenga, Reno Debets, John W. M. Martens, John A. Foekens, and Arzu Umar*
- 1828 **The Membrane Proteome of Sensory Cilia to the Depth of Olfactory Receptors**  
 [S]  
*Katja Kuhlmann, Astrid Tschapek, Heike Wiese, Martin Eisenacher, Helmut E. Meyer, Hanns H. Hatt, Silke Oeljeklaus, and Bettina Warscheid*
- 1844 **Evaluating Melanoma Drug Response and Therapeutic Escape with Quantitative Proteomics**  
 [S]  
*Vito W. Rebecca, Elizabeth Wood, Inna V. Fedorenko, Kim H. T. Paraiso, H. Eirik Haarberg, Yi Chen, Yun Xiang, Amod Sarnaik, Geoffrey T. Gibney, Vernon K. Sondak, John M. Koomen, and Keiran S. M. Smalley*

## Technological Innovation and Resources

- 1855 **Large Scale Analysis of Co-existing Post-translational Modifications in Histone Tails Reveals Global Fine Structure of Cross-talk**  
 [S]  
*Veit Schwämmle, Claudia-Maria Aspalter, Simone Sidoli, and Ole N. Jensen*
- 1866 **Cell-specific Labeling Enzymes for Analysis of Cell-Cell Communication in Continuous Co-culture**  
 [S]  
*Christopher J. Tape, Ida C. Norrie, Jonathan D. Worboys, Lindsay Lim, Douglas A. Lauffenburger, and Claus Jørgensen*
- 1877 **Functional Module Search in Protein Networks based on Semantic Similarity Improves the Analysis of Proteomics Data**  
 [S]  
*Desislava Boyanova, Santosh Nilla, Gunnar W. Klau, Thomas Dandekar, Tobias Müller, and Marcus Dittrich*

1890



**Elevated Plasma Albumin and Apolipoprotein A-I Oxidation under Suboptimal Specimen Storage Conditions**

*Chad R. Borges, Douglas S. Rehder, Sally Jensen, Matthew R. Schaab, Nisha D. Sherma, Hussein Yassine, Boriana Nikolova, and Christian Breburda*

## **Additions & Corrections**

1900

**High resolution quantitative proteomics of HeLa cells protein species using stable isotope labeling with amino acids in cell culture (SILAC), two-dimensional gel electrophoresis (2DE) and nano-liquid chromatography coupled to an LTQ-Orbitrap mass spectrometer**

*Bernd Thiede, Christian J. Koehler, Margarita Strozynski, Achim Treumann, Robert Stein, Ursula Zimny-Arndt, Monika Schmid, and Peter R. Jungblut*

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