

## Research

- 2674 **Proteomic Analysis of Gingival Tissue and Alveolar Bone during Alveolar Bone Healing**  
[S] *Hee-Young Yang, Joseph Kwon, Min-Suk Kook, Seong Soo Kang, Se Eun Kim, Sungoh Sohn, Seunggon Jung, Sang-Oh Kwon, Hyung-Seok Kim, Jae Hyuk Lee, and Tae-Hoon Lee*
- 2689 **Role of Fas-Associated Death Domain-containing Protein (FADD) Phosphorylation in Regulating Glucose Homeostasis: from Proteomic Discovery to Physiological Validation**  
[S] *Chun Yao, Hongqin Zhuang, Pan Du, Wei Cheng, Bingya Yang, Shengwen Guan, Yun Hu, Dalong Zhu, Miller Christine, Lv Shi, and Zi-Chun Hua*
- 2701 **Phosphoproteomic Analysis Reveals the Effects of PilF Phosphorylation on Type IV Pilus and Biofilm Formation in *Thermus thermophilus* HB27**  
[S] *Wan-Ling Wu, Jiahn-Haur Liao, Guang-Huey Lin, Miao-Hsia Lin, Ying-Che Chang, Suh-Yuen Liang, Feng-Ling Yang, Kay-Hooi Khoo, and Shih-Hsiung Wu*
- 2714 **Fusion Peptides from Oncogenic Chimeric Proteins as Putative Specific Biomarkers of Cancer**  
[S] *Kevin P. Conlon, Venkatesha Basrur, Delphine Rolland, Thomas Wolfe, Alexey I. Nesvizhskii, Michael J. MacCoss, Megan S. Lim, and Kojo S. J. Elenitoba-Johnson*
- 2724 **Specific Glycoforms of MUC5AC and Endorepellin Accurately Distinguish Mucinous from Nonmucinous Pancreatic Cysts**  
[S] *Zheng Cao, Kevin Maupin, Bryan Curnutte, Brian Fallon, Christa L. Feasley, Elizabeth Brouhard, Richard Kwon, Christopher M. West, John Cunningham, Randall Brand, Paola Castelli, Stefano Crippa, Ziding Feng, Peter Allen, Diane M. Simeone, and Brian B. Haab*
- 2735 **Proteomic Identification of Novel Secreted Antibacterial Toxins of the *Serratia marcescens* Type VI Secretion System**  
[S] ✎ *Maximilian J. Fritsch, Katharina Trunk, Juliana Alcoforado Diniz, Manman Guo, Matthias Trost, and Sarah J. Coulthurst*
- 2750 **Identification of Methyllysine Peptides Binding to Chromobox Protein Homolog 6 Chromodomain in the Human Proteome**  
[S] *Nan Li, Richard S. L. Stein, Wei He, Elizabeth Komives, and Wei Wang*
- 2761 **Identification of a Novel Proteoform of Prostate Specific Antigen (SNP-L132I) in Clinical Samples by Multiple Reaction Monitoring**  
[S] *Ákos Végvári, Karin Sjödin, Melinda Rezelí, Johan Malm, Hans Lilja, Thomas Laurell, and György Marko-Varga*
- 2774 **The Metabolic Status Drives Acclimation of Iron Deficiency Responses in *Chlamydomonas reinhardtii* as Revealed by Proteomics Based Hierarchical Clustering and Reverse Genetics**  
[S] *Ricarda Höhner, Johannes Barth, Leonardo Magneschi, Daniel Jaeger, Anna Niehues, Till Bald, Arthur Grossman, Christian Fufezan, and Michael Hippler*

On the cover: The component of type IV pili, the ATPase motor PilF, from the extremely thermophilic *Thermus thermophilus* HB27 was identified to be phosphorylated using shotgun phosphoproteomics. The phosphorylation state of PilF affects its physiological properties, such as non-piliated and non-twitching phenotypes, increasing biofilm-formation abilities and exopolysaccharide production. For details, see the article by Wan-Ling Wu *et al.*, pages 2701–2713.

- 2791 **Perturbations to the Ubiquitin Conjugate Proteome in Yeast  $\Delta$ ubx Mutants Identify Ubx2 as a Regulator of Membrane Lipid Composition**  
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*Natalie Kolawa, Michael J. Sweredoski, Robert L. J. Graham, Robert Oania, Sonja Hess, and Raymond J. Deshaies*
- 2804 **Bcl2-associated Athanogene 3 Interactome Analysis Reveals a New Role in Modulating Proteasome Activity**  
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- 2820 **Laminin, gamma 2 (LAMC2): A Promising New Putative Pancreatic Cancer Biomarker Identified by Proteomic Analysis of Pancreatic Adenocarcinoma Tissues**  
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- 2833 **Activated Cyclin-Dependent Kinase 5 Promotes Microglial Phagocytosis of Fibrillar  $\beta$ -Amyloid by Up-regulating Lipoprotein Lipase Expression**  
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- 2845 **Exploration of Binary Virus–Host Interactions Using an Infectious Protein Complementation Assay**  
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- 2856 **Sucrose-induced Receptor Kinase SIRK1 Regulates a Plasma Membrane Aquaporin in Arabidopsis**  
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- 2890 **Activin A Suppresses Osteoblast Mineralization Capacity by Altering Extracellular Matrix (ECM) Composition and Impairing Matrix Vesicle (MV) Production**  
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- 2901 **Comprehensive Identification of Proteins from MALDI Imaging**  
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- 2911 **Global Relative Quantification with Liquid Chromatography–Matrix-assisted Laser Desorption Ionization Time-of-flight (LC-MALDI-TOF)—Cross-validation with LTQ-Orbitrap Proves Reliability and Reveals Complementary Ionization Preferences**  
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- 2921 **Conservation of the Extended Substrate Specificity Profiles Among Homologous Granzymes Across Species**  
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- 2935 **Interlaboratory Study on Differential Analysis of Protein Glycosylation by Mass Spectrometry: The ABRF Glycoprotein Research Multi-Institutional Study 2012**  
[S] Nancy Leymarie, Paula J. Griffin, Karen Jonscher, Daniel Kolarich, Ron Orlando, Mark McComb, Joseph Zaia, Jennifer Aguilan, William R. Alley, Friederich Altmann, Lauren E. Ball, Lipika Basumallick, Carthene R. Bazemore-Walker, Henning Behnken, Michael A. Blank, Kristy J. Brown, Svenja-Catharina Bunz, Christopher W. Cairo, John F. Cipollo, Rambod Daneshfar, Heather Desaire, Richard R. Drake, Eden P. Go, Radoslav Goldman, Clemens Gruber, Adnan Halim, Yetrib Hathout, Paul J. Hensbergen, David M. Horn, Deanna Hurum, Wolfgang Jabs, Göran Larson, Mellisa Ly, Benjamin F. Mann, Kristina Marx, Yehia Mechref, Bernd Meyer, Uwe Möginger, Christian Neusüß, Jonas Nilsson, Milos V. Novotny, Julius O. Nyalwidhe, Nicolle H. Packer, Petr Pompach, Bela Reiz, Anja Resemann, Jeffrey S. Rohrer, Alexandra Ruthenbeck, Miloslav Sanda, Jan Mirco Schulz, Ulrike Schweiger-Hufnagel, Carina Sihlbom, Ehwang Song, Gregory O. Staples, Detlev Suckau, Haixu Tang, Morten Thaysen-Andersen, Rosa I. Viner, Yanming An, Leena Valmu, Yoshinao Wada, Megan Watson, Markus Windwarder, Randy Whittall, Manfred Wuhrer, Yiyang Zhu, and Chunxia Zou
- 2952 **Systems-Level Overview of Host Protein Phosphorylation During *Shigella flexneri* Infection Revealed by Phosphoproteomics**  
[S] Christoph Schmutz, Erik Ahmé, Christoph A. Kasper, Therese Tschon, Isabel Sorg, Roland F. Dreier, Alexander Schmidt, and Cécile Arrieumerlou

## Technological Innovation and Resources

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[S] Liang Xue, Robert L. Geahlen, and W. Andy Tao
- 2981 **The GlycoFilter: A Simple and Comprehensive Sample Preparation Platform for Proteomics, N-Glycomics and Glycosylation Site Assignment**  
[S] Hui Zhou, John W. Froehlich, Andrew C. Briscoe, and Richard S. Lee
- 2992 **Quantitative Assessment of In-solution Digestion Efficiency Identifies Optimal Protocols for Unbiased Protein Analysis**  
[S] Ileana R. León, Veit Schwämmle, Ole N. Jensen, and Richard R. Sprenger

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