

## Editorial

- 1259 **Gaining an Easy Visual Grasp on MCP Content**  
*Al Burlingame, Steven Carr, and Anne-Claude Gingras*

## Research

- 1261 **Structures of N-Glycans of *Bothrops* Venoms Revealed as Molecular Signatures that Contribute to Venom Phenotype in Viperid Snakes**  
*Débora Andrade-Silva, David Ashline, Thuy Tran, Aline Soriano Lopes, Silvia Regina Travaglia Cardoso, Marcelo da Silva Reis, André Zelanis, Solange M. T. Serrano, and Vernon Reinhold*
- 1285 **CRISPR/Cas9-mediated Genomic Editing of Cluap1/IFT38 Reveals a New Role in Actin Arrangement**  
*Tina Beyer, Sylvia Bolz, Katrin Junger, Nicola Horn, Muhammad Moniruzzaman, Yasmin Wissinger, Marius Ueffing, and Karsten Boldt*
- 1295 **AP-SWATH Reveals Direct Involvement of VCP/p97 in Integrated Stress Response Signaling Through Facilitating CReP/PPP1R15B Degradation**  
*Julia Hülsmann, Bojana Kravic, Matthias Weith, Matthias Gstaiger, Ruedi Aebersold, Ben C. Collins, and Hemmo Meyer*
- 1308 **Ranking the Contribution of Ankylosing Spondylitis-associated Endoplasmic Reticulum Aminopeptidase 1 (ERAP1) Polymorphisms to Shaping the HLA-B\*27 Peptidome**  
*Alejandro Sanz-Bravo, Carlos Alvarez-Navarro, Adrian Martín-Esteban, Eilon Barnea, Arie Admon, and José A. López de Castro*
- 1324 **Integrated Transcriptomic and Proteomic Analyses Suggest the Participation of Endogenous Protease Inhibitors in the Regulation of Protease Gene Expression in *Helicoverpa armigera***  
*Purushottam R. Lomate, Veena Dewangan, Neha S. Mahajan, Yashwant Kumar, Abhijeet Kulkarni, Li Wang, Smita Saxena, Vidya S. Gupta, and Ashok P. Giri*
- 1337 **Extensive Identification and In-depth Validation of Importin 13 Cargoes**  
*Imke Baade, Christiane Spillner, Kerstin Schmitt, Oliver Valerius, and Ralph H. Kehlenbach*
- 1354 **Loss of TIGAR Induces Oxidative Stress and Meiotic Defects in Oocytes from Obese Mice**  
*Haichao Wang, Qing Cheng, Xiaoyan Li, Feifei Hu, Longsen Han, Hao Zhang, Ling Li, Juan Ge, Xiaoyan Ying, Xuejiang Guo, and Qiang Wang*
- 1365 **Identification of Novel Physiological Substrates of *Mycobacterium bovis* BCG Protein Kinase G (PknG) by Label-free Quantitative Phosphoproteomics**  
*Kehilwe C. Nakedi, Bridget Calder, Mousumi Banerjee, Alexander Giddey, Andrew J. M. Nel, Shaun Garnett, Jonathan M. Blackburn, and Nelson C. Soares*

On the Cover: Regulation of protease gene expression against plant protease inhibitors (PIs) in insects. Omics studies coupled with activity assays indicate the role of endogenous PIs. After ingestion of plant PI, endogenous insect PIs get up-regulated and potentially hijack the feedback mechanism of protease expression by inhibiting terminal protease(s) of the cascade resulting in overproduction of gut proteases. For details, see the article by Lomate *et al.*, pages 1324–1336.

- 1378 **Mining the Human Tissue Proteome for Protein Citrullination**  
[S] *Chien-Yun Lee, Dongxue Wang, Mathias Wilhelm, Daniel P. Zolg, Tobias Schmidt, Karsten Schnatbaum, Ulf Reimer, Fredrik Pontén, Mathias Uhlén, Hannes Hahne, and Bernhard Kuster*
- 1392 **Targeted Proteomics Guided by Label-free Quantitative Proteome Analysis in Saliva Reveal Transition Signatures from Health to Periodontal Disease**  
*Nagihan Bostanci, Nathalie Selevsek, Witold Wolski, Jonas Grossmann, Kai Bao, Asa Wahlander, Christian Trachsel, Ralph Schlapbach, Veli Özgen Öztürk, Beral Afacan, Gulnur Emingil, and Georgios N. Belibasakis*
- 1410 **A Selective Extracellular Matrix Proteomics Approach Identifies Fibronectin Proteolysis by A Disintegrin-like and Metalloprotease Domain with Thrombospondin Type 1 Motifs (ADAMTS16) and Its Impact on Spheroid Morphogenesis**  
[S] *Rahel Schnellmann, Ragna Sack, Daniel Hess, Douglas S. Annis, Deane F. Mosher, Suneel S. Apte, and Ruth Chiquet-Ehrismann*

## Technological Innovation and Resources

- 1426 **Graphical Interpretation and Analysis of Proteins and their Ontologies (GiaPronto): A One-Click Graph Visualization Software for Proteomics Data Sets**  
*Amber K. Weiner, Simone Sidoli, Sharon J. Diskin, and Benjamin A. Garcia*
- 1432 **A Structured Workflow for Mapping Human Sin3 Histone Deacetylase Complex Interactions Using Halo-MudPIT Affinity-Purification Mass Spectrometry**  
[S] *Charles A. S. Banks, Janet L. Thornton, Cassandra G. Eubanks, Mark K. Adams, Sayem Miah, Gina Boanca, Xingyu Liu, Maria L. Katt, Tari J. Parmely, Laurence Florens, and Michael P. Washburn*
- 1448 **Software for Peak Finding and Elemental Composition Assignment for Glycosaminoglycan Tandem Mass Spectra**  
[S] *John D. Hogan, Joshua A. Klein, Jiandong Wu, Pradeep Chopra, Geert-Jan Boons, Luis Carvalho, Cheng Lin, and Joseph Zaia*

## AUTHOR INDEX

- Adams, Mark K., 1432  
Admon, Arie, 1308  
Aebersold, Ruedi, 1295  
Afacan, Beral, 1392  
Alvarez-Navarro, Carlos, 1308  
Andrade-Silva, Débora, 1261  
Annis, Douglas S., 1410  
Apte, Suneel S., 1410  
Ashline, David, 1261
- Baade, Imke, 1337  
Banerjee, Mousumi, 1365  
Banks, Charles A. S., 1432  
Bao, Kai, 1392  
Barnea, Eilon, 1308  
Belibasakis, Georgios N., 1392  
Beyer, Tina, 1285  
Blackburn, Jonathan M., 1365  
Boanca, Gina, 1432  
Boldt, Karsten, 1285  
Bolz, Sylvia, 1285  
Boons, Geert-Jan, 1448  
Bostanci, Nagihan, 1392  
Burlingame, Al, 1259
- Calder, Bridget, 1365  
Carr, Steven, 1259  
Carvalho, Luis, 1448  
Cheng, Qing, 1354  
Chiquet-Ehrismann, Ruth, 1410  
Chopra, Pradeep, 1448  
Collins, Ben C., 1295
- da Silva Reis, Marcelo, 1261  
Dewangan, Veena, 1324  
Diskin, Sharon J., 1426
- Emingil, Gulnur, 1392  
Eubanks, Cassandra G., 1432
- Florens, Laurence, 1432
- Garcia, Benjamin A., 1426  
Garnett, Shaun, 1365  
Ge, Juan, 1354  
Giddey, Alexander, 1365  
Gingras, Anne-Claude, 1259  
Giri, Ashok P., 1324  
Grossmann, Jonas, 1392  
Gstaiger, Matthias, 1295  
Guo, Xuejiang, 1354  
Gupta, Vidya S., 1324
- Hahne, Hannes, 1378  
Han, Longsen, 1354
- Hess, Daniel, 1410  
Hogan, John D., 1448  
Horn, Nicola, 1285  
Hu, Feifei, 1354  
Hülsmann, Julia, 1295
- Junger, Katrin, 1285
- Katt, Maria L., 1432  
Kehlenbach, Ralph H., 1337  
Klein, Joshua A., 1448  
Kravic, Bojana, 1295  
Kulkarni, Abhijeet, 1324  
Kumar, Yashwant, 1324  
Kuster, Bernhard, 1378
- Lee, Chien-Yun, 1378  
Li, Ling, 1354  
Li, Xiaoyan, 1354  
Lin, Cheng, 1448  
Liu, Xingyu, 1432  
Lomate, Purushottam R., 1324  
López de Castro, José A., 1308
- Mahajan, Neha S., 1324  
Martín-Esteban, Adrian, 1308  
Meyer, Hemmo, 1295  
Miah, Sayem, 1432  
Moniruzzaman, Muhammad, 1285  
Mosher, Deane F., 1410
- Nakedi, Kehilwe C., 1365  
Nel, Andrew J. M., 1365
- Öztürk, Veli Özgen, 1392
- Parmely, Tari J., 1432  
Pontén, Fredrik, 1378
- Reimer, Ulf, 1378  
Reinhold, Vernon, 1261
- Sack, Ragna, 1410  
Sanz-Bravo, Alejandro, 1308  
Saxena, Smita, 1324  
Schlapbach, Ralph, 1392  
Schmidt, Tobias, 1378  
Schmitt, Kerstin, 1337  
Schnatbaum, Karsten, 1378  
Schnellmann, Rahel, 1410  
Selevsek, Nathalie, 1392  
Serrano, Solange M. T., 1261  
Sidoli, Simone, 1426  
Soares, Nelson C., 1365

Soriano Lopes, Aline, 1261  
Spillner, Christiane, 1337

Thornton, Janet L., 1432  
Trachsel, Christian, 1392  
Tran, Thuy, 1261  
Travaglia Cardoso, Silvia Regina, 1261

Ueffing, Marius, 1285  
Uhlén, Mathias, 1378

Valerius, Oliver, 1337

Wahlander, Asa, 1392  
Wang, Dongxue, 1378  
Wang, Haichao, 1354

Wang, Li, 1324  
Wang, Qiang, 1354  
Washburn, Michael P., 1432  
Weiner, Amber K., 1426  
Weith, Matthias, 1295  
Wilhelm, Mathias, 1378  
Wissinger, Yasmin, 1285  
Wolski, Witold, 1392  
Wu, Jiandong, 1448

Ying, Xiaoyan, 1354

Zaia, Joseph, 1448  
Zelanis, André, 1261  
Zhang, Hao, 1354  
Zolg, Daniel P., 1378