

Review

- 1489 **The Impact of Biosampling Procedures on Molecular Data Interpretation**
Karl Sköld, Henrik Alm, and Birger Scholz

Research

- 1502 **Stable Isotope Labeling in Zebrafish Allows *in Vivo* Monitoring of Cardiac Morphogenesis**
[S] *Anne Konzer, Aaron Ruhs, Helene Braun, Benno Jungblut, Thomas Braun, and Marcus Krüger*
- 1513 **Quantitation of the Dynamic Profiles of the Innate Immune Response Using Multiplex Selected Reaction Monitoring–Mass Spectrometry**
[S] *Yingxin Zhao, Bing Tian, Chukwudi B. Edeh, and Allan R. Brasier*
- 1530 **Quantitative Proteomics Demonstrates That the RNA Polymerase II Subunits Rpb4 and Rpb7 Dissociate during Transcriptional Elongation**
[S] *Amber L. Mosley, Gerald O. Hunter, Mihaela E. Sardu, Michaela Smolle, Jerry L. Workman, Laurence Florens, and Michael P. Washburn*
- 1539 **Affinity Capture and Identification of Host Cell Factors Associated with Hepatitis C Virus (+) Strand Subgenomic RNA**
[S] *Alok Upadhyay, Updesh Dixit, Dinesh Manvar, Nootan Chaturvedi, and Virendra N. Pandey*
- 1553 **Chronic Nicotine Treatment Impacts the Regulation of Opioid and Non-opioid Peptides in the Rat Dorsal Striatum**
[S] *Filomena Petruzzello, Sara Falasca, Per E. Andren, Gregor Rainer, and Xiaozhe Zhang*
- 1563 **Parallel Visualization of Multiple Protein Complexes in Individual Cells in Tumor Tissue**
[S] *Karl-Johan Leuchowius, Carl-Magnus Clausson, Karin Grannas, Yücel Erbilgin, Johan Botling, Agata Zieba, Ulf Landegren, and Ola Söderberg*
- 1572 **An Extended Proteome Map of the Lysosomal Membrane Reveals Novel Potential Transporters**
[S] *Agnès Chapel, Sylvie Kieffer-Jaquinod, Corinne Sagné, Quentin Verdon, Corinne Ivaldi, Mourad Mellal, Jaqueline Thirion, Michel Jadot, Christophe Bruley, Jérôme Garin, Bruno Gasnier, and Agnès Journet*
- 1589 **Quantitative Proteomics Reveals That Enzymes of the Ketogenic Pathway Are Associated with Prostate Cancer Progression**
[S] *Punit Saraon, Daniela Cretu, Natasha Musrap, George S. Karagiannis, Ihor Batruch, Andrei P. Drabovich, Theodorus van der Kwast, Atsushi Mizokami, Colm Morrissey, Keith Jarvi, and Eleftherios P. Diamandis*

On the cover: Nucleolin (NCL) serves as a scaffolding protein to form miRISC-directed deadenylation complex (DAC) at the 3'-UTR of CSF-1 mRNA. NCL interacts with poly-A⁺-binding protein C1 (PABPC) and DAC directly as well as with miRISC complex via CSF-1 mRNA 3'UTR. We propose that NCL stabilizes the [miRISC-DAC-mRNA] complex and enhances miRISC-directed deadenylation of poly-A⁺-mRNA. For details, see the article by Ho-Hyung Woo, *et al.*, pages 1661–1667.

- 1602 **In-depth Characterization of the Secretome of Colorectal Cancer Metastatic Cells Identifies Key Proteins in Cell Adhesion, Migration, and Invasion**
 [S] *Rodrigo Barderas, Marta Mendes, Sofía Torres, Rubén A. Bartolomé, María López-Lucendo, Roi Villar-Vázquez, Alberto Peláez-García, Eduardo Fuente, Félix Bonilla, and J. Ignacio Casal*
- 1621 **Translational Predictive Biomarker Analysis of the Phase 1b Sorafenib and Bevacizumab Study Expansion Cohort**
Nilofer Azad, Minshu Yu, Ben Davidson, Peter Choyke, Clara C. Chen, Bradford J. Wood, Aradhana Venkatesan, Ryan Henning, Kathy Calvo, Lori Minasian, Daniel C. Edelman, Paul Meltzer, Seth M. Steinberg, Christina M. Annunziata, and Elise C. Kohn
- 1632 **Global Impact of *Salmonella* Pathogenicity Island 2-secreted Effectors on the Host Phosphoproteome**
 [S] *Koshi Imami, Amit P. Bhavsar, Hongbing Yu, Nat F. Brown, Lindsay D. Rogers, B. Brett Finlay, and Leonard J. Foster*
- 1644 **A Chemical Proteomics Approach to Profiling the ATP-binding Proteome of *Mycobacterium tuberculosis***
 [S] * *Lisa M. Wolfe, Usha Veeraraghavan, Susan Idicula-Thomas, Stephan Schürer, Krister Wennerberg, Robert Reynolds, Gurdyal S. Besra, and Karen M. Dobos*
- 1661 **Nucleolin Mediates MicroRNA-directed CSF-1 mRNA Deadenylation but Increases Translation of CSF-1 mRNA**
 [S] *Ho-Hyung Woo, Terri Baker, Csaba Laszlo, and Setsuko K. Chambers*
- 1678 **Quantitative Proteomics Reveals That the Specific Methyltransferases Txr1p and Ezi2p Differentially Affect the Mono-, Di- and Trimethylation States of Histone H3 Lysine 27 (H3K27)**
 [S] *Chunchao Zhang, Anthony J. Molascon, Shan Gao, Yifan Liu, and Philip C. Andrews*

Technological Innovation and Resources

- 1689 **Proteome-wide Prediction of Self-interacting Proteins Based on Multiple Properties**
 [S] *Zhongyang Liu, Feifei Guo, Jiyang Zhang, Jian Wang, Liang Lu, Dong Li, and Fuchu He*
- 1701 **Development and Characterization of a Novel Plug and Play Liquid Chromatography-Mass Spectrometry (LC-MS) Source That Automates Connections between the Capillary Trap, Column, and Emitter**
 [S] *Michael S. Bereman, Edward J. Hsieh, Thomas N. Corso, Colleen K. Van Pelt, and Michael J. MacCoss*
- 1709 **Initial Quantitative Proteomic Map of 28 Mouse Tissues Using the SILAC Mouse**
 [S] * *Tamar Geiger, Ana Velic, Boris Macek, Emma Lundberg, Caroline Kampf, Nagarjuna Nagaraj, Mathias Uhlen, Juergen Cox, and Matthias Mann*
- 1723 **Predicting Physical Interactions between Protein Complexes**
 [S] *Trevor Clancy, Einar Andreas Rødland, Ståle Nygard, and Eivind Hovig*
- 1735 **SweetSEQer, Simple de Novo Filtering and Annotation of Glycoconjugate Mass Spectra**
Oliver Serang, John W. Froehlich, Jan Muntel, Gary McDowell, Hanno Steen, Richard S. Lee, and Judith A. Steen
- 1741 **Extensive Mass Spectrometry-based Analysis of the Fission Yeast Proteome**
 [S] * *THE SCHIZOSACCHAROMYCES POMBE PEPTIDEATLAS*
Jayantha Gunaratne, Alexander Schmidt, Andreas Quandt, Suat Peng Neo, Ömer Sinan Saraç, Tannia Gracia, Salvatore Loguercio, Erik Ahrné, Rachel Li Hai Xia, Keng Hwa Tan, Christopher Lössner, Jürg Bähler, Andreas Beyer, Walter Blackstock, and Ruedi Aebersold

AUTHOR INDEX

- Aebersold, Ruedi, 1741
Ahrné, Erik, 1741
Alm, Henrik, 1489
Andren, Per E., 1553
Andrews, Philip C., 1678
Annunziata, Christina M., 1621
Azad, Nilofer, 1621
- Bähler, Jürg, 1741
Baker, Terri, 1661
Barderas, Rodrigo, 1602
Bartolomé, Rubén A., 1602
Batruch, Ihor, 1589
Bereman, Michael S., 1701
Besra, Gurdyal S., 1644
Beyer, Andreas, 1741
Bhavsar, Amit P., 1632
Blackstock, Walter, 1741
Bonilla, Félix, 1602
Botling, Johan, 1563
Brasier, Allan R., 1513
Braun, Helene, 1502
Braun, Thomas, 1502
Brown, Nat F., 1632
Bruley, Christophe, 1572
- Calvo, Kathy, 1621
Casal, J. Ignacio, 1602
Chambers, Setsuko K., 1661
Chapel, Agnès, 1572
Chaturvedi, Nootan, 1539
Chen, Clara C., 1621
Choyke, Peter, 1621
Clancy, Trevor, 1723
Clausson, Carl-Magnus, 1563
Corso, Thomas N., 1701
Cox, Juergen, 1709
Cretu, Daniela, 1589
- Davidson, Ben, 1621
Diamandis, Eleftherios P., 1589
Dixit, Updesh, 1539
Dobos, Karen M., 1644
Drabovich, Andrei P., 1589
- Edeh, Chukwudi B., 1513
Edelman, Daniel C., 1621
Erbilgin, Yücel, 1563
- Falasca, Sara, 1553
Finlay, B. Brett, 1632
Florens, Laurence, 1530
Foster, Leonard J., 1632
Froehlich, John W., 1735
Fuente, Eduardo, 1602
- Gao, Shan, 1678
Garin, Jérôme, 1572
Gasnier, Bruno, 1572
Geiger, Tamar, 1709
Gracia, Tannia, 1741
Grannas, Karin, 1563
Gunaratne, Jayantha, 1741
Guo, Feifei, 1689
- He, Fuchu, 1689
Henning, Ryan, 1621
Hovig, Eivind, 1723
Hsieh, Edward J., 1701
Hunter, Gerald O., 1530
- Idicula-Thomas, Susan, 1644
Imami, Koshi, 1632
Ivaldi, Corinne, 1572
- Jadot, Michel, 1572
Jarvi, Keith, 1589
Journet, Agnès, 1572
Jungblut, Benno, 1502
- Kampf, Caroline, 1709
Karagiannis, George S., 1589
Karl-Johan Leuchowius, 1563
Kieffer-Jaquinod, Sylvie, 1572
Kohn, Elise C., 1621
Konzer, Anne, 1502
Krüger, Marcus, 1502
- Laszlo, Csaba, 1661
Lee, Richard S., 1735
Li, Dong, 1689
Liu, Yifan, 1678
Liu, Zhongyang, 1689
Loguercio, Salvatore, 1741
López-Lucendo, María, 1602
Lössner, Christopher, 1741
Lu, Liang, 1689
Lundberg, Emma, 1709
- MacCoss, Michael J., 1701
Macek, Boris, 1709
Mann, Matthias, 1709
Manvar, Dinesh, 1539
McDowell, Gary, 1735
Mellal, Mourad, 1572
Meltzer, Paul, 1621
Mendes, Marta, 1602
Minasian, Lori, 1621
Mizokami, Atsushi, 1589
Molascon, Anthony J., 1678
Morrissey, Colm, 1589
Mosley, Amber L., 1530

Muntel, Jan, 1735
 Musrap, Natasha, 1589

 Nagaraj, Nagarjuna, 1709
 Neo, Suat Peng, 1741
 Nygard, Ståle, 1723

 Ola, Söderberg, 1563

 Pandey, Virendra N., 1539
 Peláez-García, Alberto, 1602
 Petruzzello, Filomena, 1553

 Quandt, Andreas, 1741

 Rachel Li Hai, Xia, 1741
 Rainer, Gregor, 1553
 Reynolds, Robert, 1644
 Rødland, Einar Andreas, 1723
 Rogers, Lindsay D., 1632
 Ruhs, Aaron, 1502

 Sagné, Corinne, 1572
 Saraç, Ömer Sinan, 1741
 Saraon, Punit, 1589
 Sardu, Mihaela E., 1530
 Schmidt, Alexander, 1741
 Scholz, Birger, 1489
 Schürer, Stephan, 1644
 Serang, Oliver, 1735
 Sköld, Karl, 1489
 Smolle, Michaela, 1530
 Steen, Hanno, 1735
 Steen, Judith A., 1735
 Steinberg, Seth M., 1621

 Tan, Keng Hwa, 1741
 Thirion, Jaqueline, 1572
 Tian, Bing, 1513
 Torres, Sofia, 1602

 Uhlen, Mathias, 1709
 Ulf, Landegren, 1563
 Upadhyay, Alok, 1539

 van der Kwast, Theodorus, 1589
 Van Pelt, Colleen K., 1701
 Veeraraghavan, Usha, 1644
 Velic, Ana, 1709
 Venkatesan, Aradhana, 1621
 Verdon, Quentin, 1572
 Villar-Vázquez, Roi, 1602

 Wang, Jian, 1689
 Washburn, Michael P., 1530
 Wennerberg, Krister, 1644
 Wolfe, Lisa M., 1644
 Woo, Ho-Hyung, 1661
 Wood, Bradford J., 1621
 Workman, Jerry L., 1530

 Yu, Hongbing, 1632
 Yu, Minshu, 1621

 Zhang, Chunchao, 1678
 Zhang, Jiyang, 1689
 Zhang, Xiaozhe, 1553
 Zhao, Yingxin, 1513
 Zieba, Agata, 1563