

## Table of Contents

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

### Research

- M110.007294 **Targeted Identification of Metastasis-associated Cell-surface Sialoglycoproteins in Prostate Cancer**  
[S] ✎  
*Lifang Yang, Julius O. Nyalwidhe, Siqi Guo, Richard R. Drake, and O. John Semmes*
- M110.000042 **A Novel Unbiased Proteomic Approach to Detect the Reactivity of Cerebrospinal Fluid in Neurological Diseases**  
[S]  
*Krishnakumar N. Menon, David L. Steer, Martin Short, Steven Petratos, Ian Smith, and Claude C. A. Bernard*
- M110.005330 **Identification of Three New Autoantibodies Associated with Systemic Lupus Erythematosus Using Two Proteomic Approaches**  
*Yasuhiro Katsumata, Yasushi Kawaguchi, Sayumi Baba, Seisuke Hattori, Koji Tahara, Kaori Ito, Tadao Iwasaki, Nozomi Yamaguchi, Masaaki Oyama, Hiroko Kozuka-Hata, Hiroaki Hattori, Kinya Nagata, Hisashi Yamanaka, and Masako Hara*
- M110.005678 **Carboxyl-Group Footprinting Maps the Dimerization Interface and Phosphorylation-induced Conformational Changes of a Membrane-associated Tyrosine Kinase**  
[S]  
*Hao Zhang, Wei Shen, Don Rempel, John Monsey, Ilan Vidavsky, Michael L. Gross, and Ron Bose*
- M111.009399 **Proteomic Screening of Anaerobically Regulated Promoters from *Salmonella* and Its Antitumor Applications**  
[S]  
*Jianxiang Chen, Dongping Wei, Hongqin Zhuang, Yiting Qiao, Bo Tang, Xiangyu Zhang, Jing Wei, Shentong Fang, Guo Chen, Pan Du, Xiaofeng Huang, Wenhui Jiang, Qingang Hu, and Zi-Chun Hua*
- M110.007492 **Quantitative Proteomics Identifies a  $\beta$ -Catenin Network as an Element of the Signaling Response to Frizzled-8 Protein-Related Antiproliferative Factor**  
[S]  
*Wei Yang, Yeun Goo Chung, Yongsoo Kim, Taek-Kyun Kim, Susan K. Keay, Chen-Ou Zhang, Mihee Ji, Daehee Hwang, Kwang Pyo Kim, Hanno Steen, Michael R. Freeman, and Jayoung Kim*
- M110.002246 **HLA-DR-presented Peptide Repertoires Derived From Human Monocyte-derived Dendritic Cells Pulsed With Blood Coagulation Factor VIII**  
[S]  
*Simon D. van Haren, Eszter Herczenik, Anja ten Brinke, Koen Mertens, Jan Voorberg, and Alexander B. Meijer*

---

On the cover: Proteomic and electron microscopy survey of large assemblies in macrophage cytoplasm. Sucrose gradient fractions of macrophage cell lysate were analyzed to identify constituent proteins by mass spectrometry and visualize them by electron microscopy. The image shows the superposition of (1) background: transmission (metal shadowed replica) electron micrograph of macrophage cell interior; (2) center, grey boxes: example two-dimensional averages of putative macromolecular complexes as analysed by single particle electron microscopy; and (3) colored balls connected by lines: example functional interaction network of components of a fraction (generated using String protein interactions database). For details, see article by Bohumil Maco *et al.*, pages M111.008763, 1–9.

---

- M110.004549 **Identification of Outer Membrane Proteins from an Antarctic Bacterium *Pseudomonas syringae* Lz4W**  
 [S] *M. V. Jagannadham, Ehab F. Abou-Eladab, and Heramb M. Kulkarni*
- M110.003350 **5'TRU: Identification and Analysis of Translationally Regulative 5'Untranslated Regions in Amino Acid Starved Yeast Cells**  
 [S] *Nicole Rachfall, Isabelle Heinemeyer, Burkhard Morgenstern, Oliver Valerius, and Gerhard H. Braus*
- M110.007039 **Large-Scale Label-Free Quantitative Proteomics of the Pea aphid-*Buchnera* Symbiosis**  
 [S] *Anton Poliakov, Calum W. Russell, Lalit Ponnala, Harold J. Hoops, Qi Sun, Angela E. Douglas, and Klaas J. van Wijk*
- M110.006478 **A Conserved Coatmer-related Complex Containing Sec13 and Seh1 Dynamically Associates With the Vacuole in *Saccharomyces cerevisiae***  
 [S] *Svetlana Dokudovskaya, Francois Waharte, Avner Schlessinger, Ursula Pieper, Damien P. Devos, Ileana M. Cristea, Rosemary Williams, Jean Salamero, Brian T. Chait, Andrej Sali, Mark C. Field, Michael P. Rout, and Catherine Dargemont*
- M111.008193 **Proteomic Evaluation and Validation of Cathepsin D Regulated Proteins in Macrophages Exposed to *Streptococcus pneumoniae***  
 [S] \* *Martin A. Bewley, Trong K. Pham, Helen M. Marriott, Josselin Noirel, Hseuh-Ping Chu, Saw Y. Ow, Alexey G. Ryazanov, Robert C. Read, Moira K. B. Whyte, Benny Chain, Phillip C. Wright, and David H. Dockrell*
- M111.009126 **HSV-1 Cgal<sup>+</sup> Infection Promotes Quaking RNA Binding Protein Production and Induces Nuclear-Cytoplasmic Shuttling of Quaking I-5 Isoform in Human Hepatoma Cells**  
 [S] *Virginia Sánchez-Quiles, María I. Mora, Victor Segura, Anna Greco, Alberto L. Epstein, Maria Giovanna Foschini, Loïc Dayon, Jean-Charles Sanchez, Jesús Prieto, Fernando J. Corrales, and Enrique Santamaría*

## Technological Innovation and Resources

- M110.006593 **Methods for Peptide and Protein Quantitation by Liquid Chromatography-Multiple Reaction Monitoring Mass Spectrometry**  
 [S] *Haixia Zhang, Qinfeng Liu, Lisa J. Zimmerman, Amy-Joan L. Ham, Robert J. C. Slebos, Jamshedur Rahman, Takefume Kikuchi, Pierre P. Massion, David P. Carbone, Dean Billheimer, and Daniel C. Liebler*
- M111.008763 **Proteomic and Electron Microscopy Survey of Large Assemblies in Macrophage Cytoplasm**  
 [S] *Bohumil Maco, Ian L. Ross, Michael J. Landsberg, Dmitri Mouradov, Neil FW Saunders, Ben Hankamer, and Bostjan Kobe*
- M110.003822 **Hierarchical Clustering of Shotgun Proteomics Data**  
*Ville R. Koskinen, Patrick A. Emery, David M. Creasy, and John S. Cottrell*
- M110.002386 ***In Vivo* Analysis of Proteomes and Interactomes Using Parallel Affinity Capture (iPAC) Coupled to Mass Spectrometry**  
 [S] \* *Johanna S. Rees, Nick Lowe, Irina M. Armean, John Roote, Glynnis Johnson, Emma Drummond, Helen Spriggs, Edward Ryder, Steven Russell, Daniel St Johnston, and Kathryn S. Lilley*
- M111.008771 **Quantification of Activated NF- $\kappa$ B/RelA Complexes Using ssDNA Aptamer Affinity – Stable Isotope Dilution– Selective Reaction Monitoring–Mass Spectrometry**  
*Yingxin Zhao, Steven G. Widen, Mohammad Jamaluddin, Bing Tian, Thomas G. Wood, Chukwudi B. Edeh, and Allan R. Brasier*
- M110.002220 **Gapped Spectral Dictionaries and Their Applications for Database Searches of Tandem Mass Spectra**  
 [S] *Kyowon Jeong, Sangtae Kim, Nuno Bandeira, and Pavel A. Pevzner*
- M110.004929 **Inferring Physical Protein Contacts from Large-Scale Purification Data of Protein Complexes**  
 [S] \* *Sven-Eric Schelhorn, Julián Mestre, Mario Albrecht, and Elena Zotenko*

## AUTHOR INDEX

- Abou-Eladab, Ehab F., M110.004549  
Albrecht, Mario, M110.004929  
Armean, Irina M., M110.002386
- Baba, Sayumi, M110.005330  
Bandeira, Nuno, M110.002220  
Bernard, Claude C. A., M110.000042  
Bewley, Martin A., M111.008193  
Billheimer, Dean, M110.006593  
Bose, Ron, M110.005678  
Brasier, Allan R., M111.008771  
Braus, Gerhard H., M110.003350
- Carbone, David P., M110.006593  
Chain, Benny, M111.008193  
Chait, Brian T., M110.006478  
Chen, Guo, M111.009399  
Chen, Jianxiang, M111.009399  
Chu, Hseuh-Ping, M111.008193  
Corrales, Fernando J., M111.009126  
Cottrell, John S., M110.003822  
Creasy, David M., M110.003822  
Cristea, Ileana M., M110.006478
- Dargemont, Catherine, M110.006478  
Dayon, Loïc, M111.009126  
Devos, Damien P., M110.006478  
Dockrell, David H., M111.008193  
Dokudovskaya, Svetlana, M110.006478  
Douglas, Angela E., M110.007039  
Drake, Richard R., M110.007294  
Drummond, Emma, M110.002386  
Du, Pan, M111.009399
- Edeh, Chukwudi B., M111.008771  
Emery, Patrick A., M110.003822  
Epstein, Alberto L., M111.009126
- Fang, Shentong, M111.009399  
Field, Mark C., M110.006478  
Freeman, Michael R., M110.007492  
Foschini, Maria Giovanna, M111.009126
- Goo Chung, Yeun, M110.007492  
Greco, Anna, M111.009126  
Gross, Michael L., M110.005678  
Guo, Siqi, M110.007294
- Ham, Amy-Joan L., M110.006593  
Hankamer, Ben, M111.008763  
Hara, Masako, M110.005330  
Hattori, Hiroaki, M110.005330  
Hattori, Seisuke, M110.005330  
Heinemeyer, Isabelle, M110.003350  
Herczenik, Eszter, M110.002246
- Hoops, Harold J., M110.007039  
Hu, Qingang, M111.009399  
Hua, Zi-Chun, M111.009399  
Huang, Xiaofeng, M111.009399  
Hwang, Daehee, M110.007492
- Ito, Kaori, M110.005330  
Iwasaki, Tadao, M110.005330
- Jagannadham, M. V., M110.004549  
Jamaluddin, Mohammad, M111.008771  
Jeong, Kyowon, M110.002220  
Ji, Mihee, M110.007492  
Jiang, Wenhui, M111.009399  
Johnson, Glynnis, M110.002386  
Johnston, Daniel St, M110.002386
- Katsumata, Yasuhiro, M110.005330  
Kawaguchi, Yasushi, M110.005330  
Keay, Susan K., M110.007492  
Kikuchi, Takefume, M110.006593  
Kim, Jayoung, M110.007492  
Kim, Sangtae, M110.002220  
Kim, Taek-Kyun, M110.007492  
Kim, Yongsoo, M110.007492  
Kobe, Bostjan, M111.008763  
Koskinen, Ville R., M110.003822  
Kozuka-Hata, Hiroko, M110.005330  
Kulkarni, Heramb M., M110.004549
- Landsberg, Michael J., M111.008763  
Liebler, Daniel C., M110.006593  
Lilley, Kathryn S., M110.002386  
Liu, Qinfeng, M110.006593  
Lowe, Nick, M110.002386
- Maco, Bohumil, M111.008763  
Marriott, Helen M., M111.008193  
Massion, Pierre P., M110.006593  
Meijer, Alexander B., M110.002246  
Menon, Krishnakumar N., M110.000042  
Mertens, Koen, M110.002246  
Mestre, Julián, M110.004929  
Monsey, John, M110.005678  
Mora, María I., M111.009126  
Morgenstern, Burkhard, M110.003350  
Mouradov, Dmitri, M111.008763
- Nagata, Kinya, M110.005330  
Noirel, Josselin, M111.008193  
Nyalwidhe, Julius O., M110.007294
- Ow, Saw Y., M111.008193  
Oyama, Masaaki, M110.005330

Petratos, Steven, M110.000042  
 Pevzner, Pavel A., M110.002220  
 Pham, Trong K., M111.008193  
 Pieper, Ursula, M110.006478  
 Poliakov, Anton, M110.007039  
 Ponnala, Lalit, M110.007039  
 Prieto, Jesús, M111.009126  
 Pyo Kim, Kwang, M110.007492  
  
 Qiao, Yiting, M111.009399  
  
 Rachfall, Nicole, M110.003350  
 Rahman, Jamshedur, M110.006593  
 Read, Robert C., M111.008193  
 Rees, Johanna S., M110.002386  
 Rempel, Don, M110.005678  
 Roote, John, M110.002386  
 Ross, Ian L., M111.008763  
 Rout, Michael P., M110.006478  
 Russell, Calum W., M110.007039  
 Russell, Steven, M110.002386  
 Ryazanov, Alexey G., M111.008193  
 Ryder, Edward, M110.002386  
  
 Salamero, Jean, M110.006478  
 Sali, Andrej, M110.006478  
 Sanchez, Jean-Charles, M111.009126  
 Sánchez-Quiles, Virginia, M111.009126  
 Santamaría, Enrique, M111.009126  
 Schelhorn, Sven-Eric, M110.004929  
 Schlessinger, Avner, M110.006478  
 Segura, Victor, M111.009126  
 Semmes, O. John, M110.007294  
 Shen, Wei, M110.005678  
 Short, Martin, M110.000042  
 Slebos, Robbert J. C., M110.006593  
 Smith, Ian, M110.000042  
  
 Spriggs, Helen, M110.002386  
 Steen, Hanno, M110.007492  
 Steer, David L., M110.000042  
 Sun, Qi, M110.007039  
  
 Tahara, Koji, M110.005330  
 ten Brinke, Anja, M110.002246  
 Tang, Bo, M111.009399  
 Tian, Bing, M111.008771  
  
 Valerius, Oliver, M110.003350  
 van Haren, Simon D., M110.002246  
 van Wijk, Klaas J., M110.007039  
 Vidavsky, Ilan, M110.005678  
 Voorberg, Jan, M110.002246  
  
 Waharte, Francois, M110.006478  
 Wei, Dongping, M111.009399  
 Wei, Jing, M111.009399  
 Whyte, Moira K. B., M111.008193  
 Widen, Steven G., M111.008771  
 Williams, Rosemary, M110.006478  
 Wood, Thomas G., M111.008771  
 Wright, Phillip C., M111.008193  
  
 Yamaguchi, Nozomi, M110.005330  
 Yamanaka, Hisashi, M110.005330  
 Yang, Lifang, M110.007294  
 Yang, Wei, M110.007492  
  
 Zhang, Chen-Ou, M110.007492  
 Zhang, Haixia, M110.006593  
 Zhang, Hao, M110.005678  
 Zhang, Xiangyu, M111.009399  
 Zhao, Yingxin, M111.008771  
 Zhuang, Hongqin, M111.009399  
 Zimmerman, Lisa J., M110.006593  
 Zotenko, Elena, M110.004929