

## Review

- 1409 **Proteomics and Metaproteomics Add Functional, Taxonomic and Biomass Dimensions to Modeling the Ecosystem at the Mucosal-luminal Interface**  
*Leyuan Li and Daniel Figeys*

## Research

- 1418 **Depolarization-dependent Induction of Site-specific Changes in Sialylation on N-linked Glycoproteins in Rat Nerve Terminals**  
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- 1436 **Kir2.1 Interactome Mapping Uncovers PKP4 as a Modulator of the Kir2.1-Regulated Inward Rectifier Potassium Currents**  
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- 1450 **The Insulin Receptor Adaptor IRS2 is an APC/C Substrate That Promotes Cell Cycle Protein Expression and a Robust Spindle Assembly Checkpoint**  
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- 1468 **Differential Complex Formation via Paralogs in the Human Sin3 Protein Interaction Network**  
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- 1485 **An Interaction Network of RNA-Binding Proteins Involved in *Drosophila* Oogenesis**  
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- 1503 **Data, Reagents, Assays and Merits of Proteomics for SARS-CoV-2 Research and Testing**  
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- 1523 **Proteomics of Galápagos Marine Iguanas Links Function of Femoral Gland Proteins to the Immune System**  
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- 1533 **Measuring Site-specific Glycosylation Similarity between Influenza A Virus Variants with Statistical Certainty**  
*Deborah Chang, William E. Hackett, Lei Zhong, Xiu-Feng Wan, and Joseph Zaia*

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On the Cover: When ecology meets metaproteomics: researchers have started to explicitly describe the ecological processes in our gut beyond correlative analysis. In this Review, Li and Figeys discuss the usefulness of metaproteomics/proteomics techniques in modeling our gut ecosystem, in particular at the mucosal-luminal interface where direct host-microbiome interaction happens. For details, see the article by Li *et al.*, pages 1409–1417.

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- 1546 **Accurate MS-based Rab10 Phosphorylation Stoichiometry Determination as Readout for LRRK2 Activity in Parkinson's Disease**  
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## **Technological Innovation and Resources**

- 1561 **Open Database Searching Enables the Identification and Comparison of Bacterial Glycoproteomes without Defining Glycan Compositions Prior to Searching**  
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- 1575 **Fast Quantitative Analysis of timsTOF PASEF Data with MSFragger and IonQuant**  
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