On the costs of scientific publishing. Lila M. Gierasch

Getting in charge of β-synuclein fibrillation. Meytal Landau
Also classified as Protein Structure and Folding
Also classified as Molecular Bases of Disease

Fishing for key players in ER–mitochondrial contacts. Qingsong Lin and Yih-Cherng Liou
Also classified as Cell Biology
Also classified as Neurobiology

A pH-dependent switch promotes β-synuclein fibril formation via glutamate residues. Gina M. Moriarty, Michael P. Olson, Tamr B. Atieh, Maria K. Janowska, Sagar D. Khare, and Jean Baum
Also classified as Protein Structure and Folding
Also classified as Molecular Bases of Disease

Ascorbate peroxidase proximity labeling coupled with biochemical fractionation identifies promoters of endoplasmic reticulum–mitochondrial contacts. Il-Taeg Cho, Guillaume Adelmant, Youngshin Lim, Jarrod A. Marto, Ginam Cho, and Jeffrey A. Golden
Also classified as Cell Biology
Also classified as Neurobiology

Isolation and characterization of string-forming female germline stem cells from ovaries of neonatal mice. Jing Liu, Dantong Shang, Yao Xiao, Pei Zhong, Hanhua Cheng, and Rongjia Zhou
Also classified as Membrane Biology

MST4 kinase phosphorylates ACAP4 protein to orchestrate apical membrane remodeling during gastric acid secretion. Xiao Yuan, Phil Y. Yao, Jiying Jiang, Yin Zhang, Zeqi Su, Wendy Yao, Xueying Wang, Ping Gui, McKay Mullen, Calmour Henry, Tarsha Ward, Wenwen Wang, Larry Brako, Ruijun Tian, Xuannu Zhao, Fengsong Wang, Xinwang Cao, Dongmei Wang, Xing Liu, Xing Ding, and Xuebiao Yao
Also classified as Signal Transduction

Interaction of Munc18c and syntaxin4 facilitates invadopodium formation and extracellular matrix invasion of tumor cells. Megan I. Brasher, David M. Martynowicz, Olivia R. Graffinger, Andrea Hucik, Emma Shanks-Skinner, James Unjacc, and Marc G. Coppolino
Also classified as Molecular Bases of Disease

The DNA replication protein Cdc6 inhibits the microtubule-organizing activity of the centrosome. Inyoung Lee, Gwang Su Kim, Jun Sung Bae, Jaeyoun Kim, Kunsoo Rhee, and Deog Su Hwang
Also classified as DNA and Chromosomes

Cox16 protein is physically associated with Cox1p assembly intermediates and with cytochrome oxidase. Chen-Hsien Su and Alexander Tsagoloff
Also classified as Membrane Biology


Syndecan-2 cytoplasmic domain up-regulates matrix metalloproteinase-7 expression via the protein kinase Cγ-mediated FAK/ERK signaling pathway in colon cancer. Bohee Jang, Hyejung Jung, Sojoong Choi, Young Hun Lee, Seung-Taek Lee, and Eok-Soo Oh
Also classified as Signal Transduction

Structural basis of human PR/SET domain 9 (PRDM9) allele C-specific recognition of its cognate DNA sequence. Anamika Patel, Xing Zhang, Robert M. Blumenthal, and Xiaodong Cheng
Also classified as Gene Regulation

The Rev1 interacting region (RIR) motif in the scaffold protein XRCRC1 mediates a low-affinity interaction with polynucleotide kinase/phosphatase (PNPK) during DNA single-strand break repair. Claire Breslin, Rajam S. Mani, Mesfin Fanta, Nicolas Hoch, Michael Weinfeld, and Keith W. Caldecott
Also classified as Cell Biology

We depict an intracellular space separated into different pH-regulated microenvironments and show that only one favors the formation of amyloid (brown, right) and otherwise presents as a monomeric ensemble (curved lines and box). We attribute this tuning (dials) of pH and fibrillation state to the protonation incurred at carboxyl group side chains as more mildly acidic compartments are accessed. For details, see the article by Moriarty et al., pages 16368–16379.
16070 Search for DNA damage by human alkyladenine DNA glycosylase involves early intercalation by an aromatic residue. Jenna M. Hendershot and Patrick J. O’Brien
Also classified as Enzymology

GENE REGULATION
16081 Multiple circadian transcriptional elements cooperatively regulate cell-autonomous transcriptional oscillation of Period3, a mammalian clock gene. Ritsuko Matsumura and Makoto Akashi
Also classified as Cell Biology

GLYCOSYLBIOLOGY AND EXTRACELLULAR MATRICES
16211 Decorin-evoked paternally expressed gene 3 (PEG3) is an upstream regulator of the transcription factor EB (TFEB) in endothelial cell autophagy. Thomas Neill, Catherine Sharpe, Rick T. Owens, and Renato V. Jazoo
Also classified as Cell Biology

Also classified as Molecular Bases of Disease

METABOLISM
16122 The C-terminal fibrinogen-like domain of angiopoietin-like-4 stimulates adipose tissue lipolysis and promotes energy expenditure. Allison E. McQueen, Deepthi Kanamaluru, Kimberly Yan, Nora E. Gray, Leslie Wu, Mei-Lan Li, Anthony Chang, Adeeba Hasan, Daniel Stiller, Suniel K. Kolwad, and Jen-Chywan Wang

16360 Discovery of a widespread prokaryotic 5-oxoproline that was hiding in plain sight. Thomas D. Niehaus, Mona Ebdawi-Sidhu, Valérie de Crécy-Lagard, Olivier Fiehn, and Andrew D. Hanson
Also classified as Microbiology

METHODS AND RESOURCES
16249 Multiplexed silicon photonic sensor arrays enable facile characterization of coagulation protein binding to nanodiscs with variable lipid content. Ellen M. Muehl, Joshua M. Gajswiercz, Sara M. Medfisch, Zachary S. B. Wiersma, James H. Morrissey, and Ryan C. Bailey
Also classified as Molecular Biophysics

MICROBIOLOGY
16093 Protein kinase G confers survival advantage to Mycobacterium tuberculosis during latency-like conditions. Mehak Zahoor Khan, Ashima Bhaskar, Sandeep Upadhyay, Pooja Kumari, Raju S. Rajmani, Preeti Jain, Amit Singh, Dhiraj Kumar, Neel Saravar Bhavesh, and Vinay Kumar Nandicoori
Also classified as Signal Transduction

16109 Iron is a substrate of the Plasmodium falciparum chloroquine resistance transporter PFCRT in Xenopus oocytes. Nazifa Bakouh, Sebastiana Bellanca, Britta Nyboer, Sonia Moliner Cubel, Zoubida Karim, Cecilia P. Sanchez, Wilfred D. Stein, Gabrielle Planelles, and Michael Lanzer
Also classified as Cell Biology

MOLECULAR BIOPHYSICS
16044 Multiple DNA-binding modes for the ETS family transcription factor PU.1. Shingo Esaki, Marina G. Evich, Noa Erliitzi, Markus W. Germann, and Gregory M. K. Poon
Also classified as Gene Regulation

16235 Structural transitions in conserved, ordered Beclin 1 domains essential to regulating autophagy. Karen Glover, Yue Li, Shreya Mukhopadhyay, Zoe Leuthner, Srinivas Chakravarthy, Christopher L. Colbert, and Sangita C. Sinha
Also classified as Cell Biology

Also classified as Computational Biology

NEUROBIOLOGY
16150 Postsynaptic density 95 (PSD-95) serine 561 phosphorylation regulates a conformational switch and bidirectional dendritic spine structural plasticity. Qian Wu, Miao Sun, Laura P. Bernard, and Huaye Zhang
Also classified as Cell Biology

PLANT BIOLOGY
16188 Recently duplicated plant heterotrimetric Go proteins with subtle biochemical differences influence specific outcomes of signal-response coupling. Swarup Roy Choudhury and Sona Pandey
Also classified as Developmental Biology

PROTEIN STRUCTURE AND FOLDING
16055 The crystal structure of full-length Sizzled from Xenopus laevis yields insights into Wnt-antagonistic function of secreted Frizzled-related proteins. Oxin Bu, Zhiqiang Li, Junyong Zhang, Fei Xu, Jianmei Liu, and Heli Liu
Also classified as Signal Transduction

16136 Role of the disulfide bond in stabilizing and folding of the filamentous virus protein E3/ PF/E from uropathogenic Escherichia coli. Justyna Pilipczuk, Beata Zalewska-Piątek, Piotr Bruniażek, Jacek Czub, Milosz Wieczór, Marcin Olzewski, Marta Wanarska, Bogdan Nowicki, Danuta Augustin-Nowacka, and Rafal Piątek

16221 The human RNA-binding protein and E3 ligase MEX-3C binds the MEX-3–recognition element (MRE) motif with high affinity. Lingna Yang, Chongyuan Wang, Fudong Li, Jiahai Zhang, Anam Nayab, Jihui Wu, Yunyu Shi, and Qingguo Gong
Also classified as RNA

PROTEIN SYNTHESIS AND DEGRADATION
16014 Protein glutaminylation is a yeast-specific posttranslational modification of elongation factor 1A. Thomas Jank, Yuyu Belyi, Christophe Wirth, Sabine Rospert, Zehan Hu, Jörn Dengjel, Tina Zivilekidis, Gregers Rom Andersen, Carola Hunte, Andreas Schlosser, and Klaus Aktories
Also classified as Protein Structure and Folding

16310 The proteasome-interacting Ec29 protein disassembles the 26S proteasome in response to oxidative stress. Xiaorong Wang, Ilan E. Chemmama, Clinton Yu, Alexander Huzaga, Yue Xu, Rosa Viner, Sarah A. Block, Peter Cinermmanc, Scott D. Rychnovsky, Yihong Ye, Andrej Sal, and Lan Huang
Also classified as Genomics and Proteomics

16333 Dsc E3 ligase localization to the Golgi requires the ATPase Cdc48 and cofactor Ufd1 for activation of sterol regulatory element-binding protein in fission yeast. Riso Burr, Diedre Ribbens, Sumana Raychaudhuri, Emerson V. Stewart, Jason Ho, and Peter J. Espenshade
Navigating the conformational landscape of G protein–coupled receptor kinases during allosteric activation. Xin-Qiu Yao, M. Claire Cato, Emily Labudde, Tyler S. Beyett, John J. G. Tesmer, and Barry J. Grant
Also classified as Computational Biology

Also classified as Protein Structure and Folding

The replication and transcription activator of murine gammaherpesvirus 68 cooperatively enhances cytokine-activated, STAT3-mediated gene expression. Hui-Chen Chang Foreman, Julie Armstrong, Alexis L. Santana, Laurie T. Krug, and Nancy C. Reich

Angiopoietin-like 4 (Angptl4) protein is a physiological mediator of intracellular lipolysis in murine adipocytes. Nora E. Gray, Lily N. Lam, Karen Yang, Anna Y. Zhou, Suneil Koliwad, and Jen-Chywan Wang