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Asymmetry and Aging of Mycobacterial Cells Lead to Variable Growth and Antibiotic Susceptibility
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The growing pole of the tuberculosis-causing bacterium is inherited by only one offspring, which can then elongate faster.
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Lack of the transporter critical for recycling of nucleosides after phagocytosis results in a fatal expansion of macrophages.
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RESEARCH ARTICLE: H2S-Induced Sulphydrylation of the Phosphatase PTP1B and Its Role in the Endoplasmic Reticulum Stress Response
N. Krishnan et al.
Reversible inactivation by sulphydrylation of the protein tyrosine phosphatase PTP1B activates the kinase PERK to promote the ER stress response.

RESEARCH ARTICLE: Triggering Actin Comets Versus Membrane Ruffles—Distinctive Effects of Phosphoinositides on Actin Reorganization
T. Ueno et al.
The ability of phosphoinositides to produce functionally diverse effects may depend on the relative concentrations of different species.

PERSPECTIVE: Is the Regulation of Insulin Signaling Multi-Organismal?
A. E. Douglas
Gut microbiota in Drosophila promote metabolic signaling pathways, resulting in increased growth and development rates.

PROTOCOL: A Method to Separate Nuclear, Cytosolic, and Membrane-Associated Signaling Molecules in Cultured Cells
X. Liu and F. Fogotto
A semipermeabilization step and a specific Percoll gradient composition enable effective cellular fractionation.

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Find out what FLP, sAC, and CR3 mean in the world of cell signaling.

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RESEARCH ARTICLE: Amelioration of Type 2 Diabetes by Antibody-Mediated Activation of Fibroblast Growth Factor Receptor 1
A.-L. Wu et al.
Designer antibodies that mimic hormone activity provide new approaches to treating diabetes.

RESEARCH ARTICLE: An NKG2D-Mediated Human Lymphoid Stress Surveillance Response with High Interindividual Variation
S. Shafi et al.
The stress surveillance response to cell damage varies among humans, perhaps explaining differences in transplant rejection.

RESEARCH ARTICLE: Pathogenesis of Lethal Cardiac Arrhythmias in Mepc2 Mutant Mice—Implication for Therapy in Rett Syndrome
M. D. McCauley et al.
Lethal ventricular arrhythmias in a mouse model of Rett syndrome can be prevented.

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