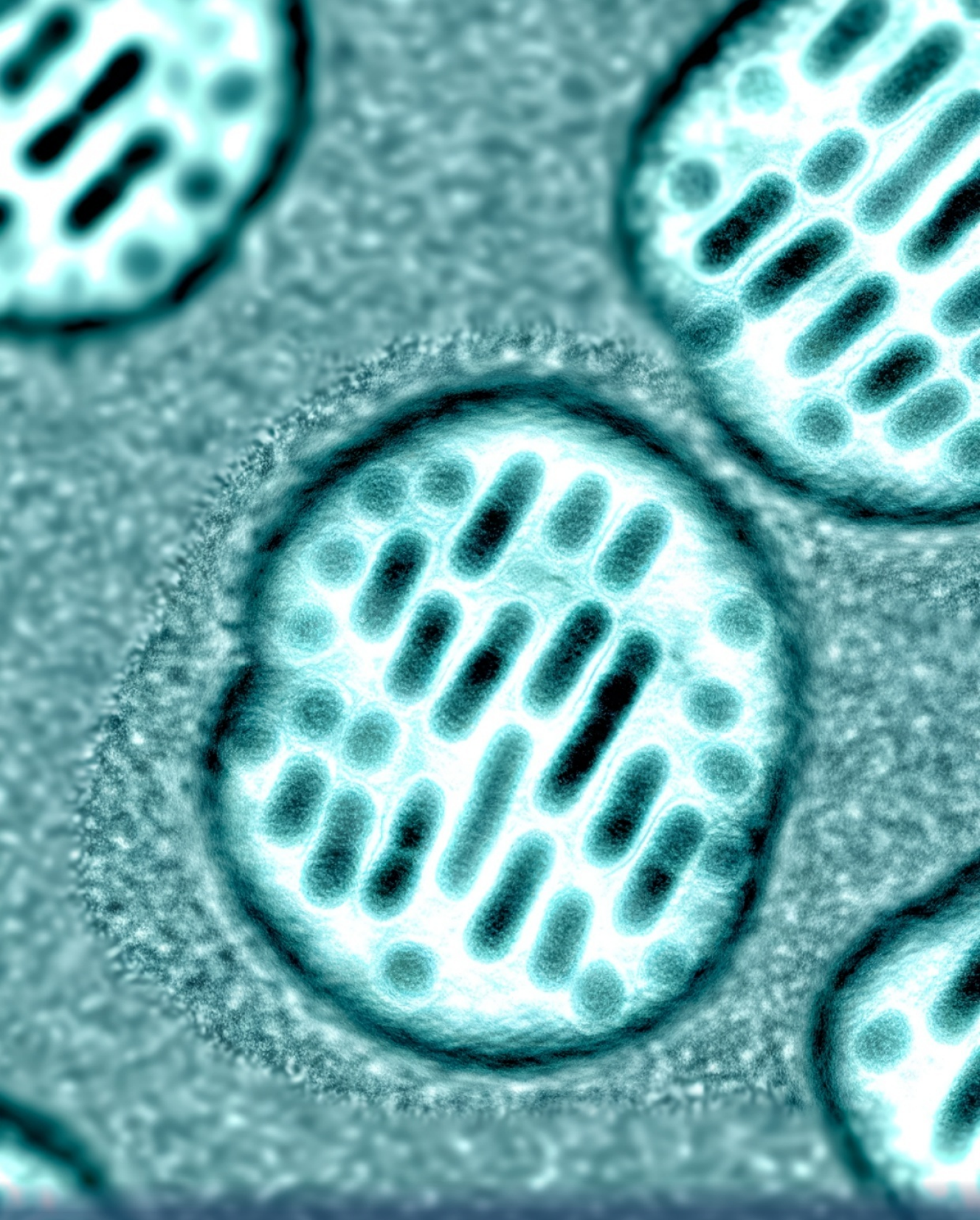




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Table of Contents

Volume 20, Issue 1 — January 2026

Research Articles

1.

Elucidating Cross-Talk Mechanisms in Plant Immune Signaling Pathways

Katrin E. Müller, Yuko Sato, Andrés M. Pérez

Keywords: plant immunity, Arabidopsis thaliana, signaling pathways, CRISPR-Cas9, transcriptomics, salicylic acid, jasmonic acid, ethylene

2.

Elucidating the Mechanisms of Self-Antigen Recognition in Autoimmune Disorders

Hans-Jürgen Müller, Kim Soo-Jin, Leila Haddad

Keywords: autoimmune diseases, self-antigen recognition, T-cell receptors, cytokines, systemic lupus erythematosus, rheumatoid arthritis

3.

Integrative Network Analysis Enhances Predictive Modeling in Genomic Studies

Levent Ozdemir, Hiroshi Nakamura, Aditi Raghavan

Keywords: Predictive modeling, Genomic analysis, Network integration, Gene expression, Protein interaction, Epigenomics, Cancer genomics

4.

Elucidating the Allosteric Mechanisms in Human AMPK Through High-Resolution Cryo-EM Studies

Hans-Peter Müller, Li Ming-Hu, Priya N. Iyer

Keywords: AMP-activated protein kinase, cryo-electron microscopy, allosteric regulation, molecular dynamics, phosphorylation sites, metabolic disorders

5.

Characterizing Neural Network Dynamics Using Advanced fMRI Techniques in Cognitive Processing

Lars M. Kaufmann, Min-Jae Lee, Sofia R. Hernandez

Keywords: fMRI, cognitive processing, neural networks, brain connectivity, dynamic causal modeling, independent component analysis, prefrontal cortex

6.

Adaptive Mechanisms in Viral Evolution: Insights from RNA Virus Mutation Dynamics

Hiroshi Nakamura, Priya S. Menon, Ahmed El-Mansouri

Keywords: RNA virus, mutation dynamics, viral evolution, genetic recombination, genomic surveillance, replication fidelity

7.

Exploring the Role of Chaperone Proteins in the Dynamics of Protein Folding Pathways

Hiroshi Masuda, Fatima El-Sayed, Kumiko Nishimura

Keywords: protein folding, chaperone proteins, molecular dynamics, Hsp70, protein homeostasis, misfolding, therapeutic strategies