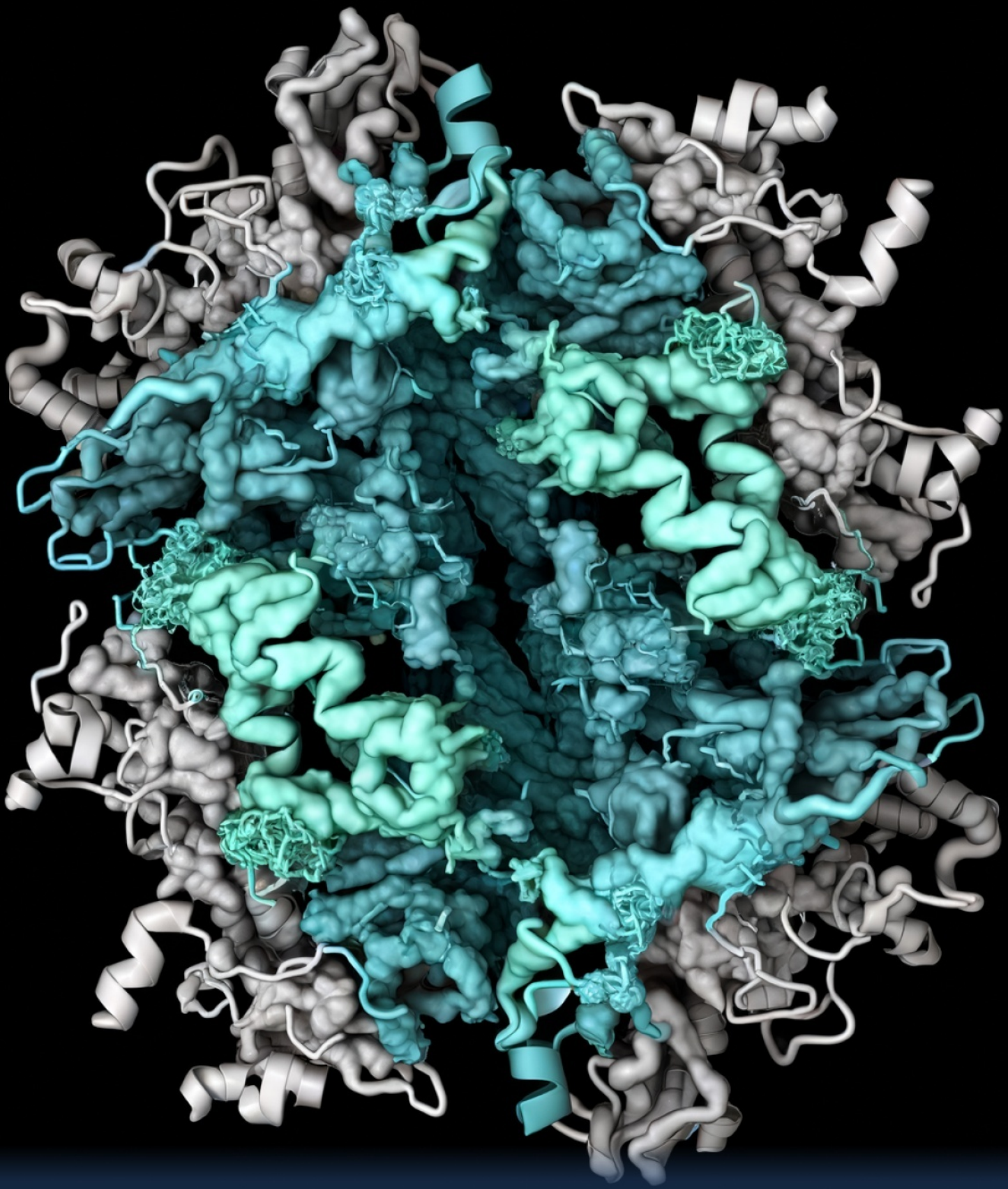

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Table of Contents

Volume 20, Issue 3 — March 2026

Research Articles

1.

Deciphering the Regulatory Networks of Heat Shock Protein Gene Expression in Drosophila melanogaster

Jürgen W. Müller, Hiroshi Nakamura, Aditi Mehta

Keywords: gene expression, heat shock proteins, Drosophila melanogaster, transcriptional regulation, RNA sequencing, chromatin immunoprecipitation

2.

Mechanistic Insights into Pseudomonas aeruginosa's Evasion of Host Immune Responses

Emma B. Johansson, Ramesh Nair, Farah El-Moussa

Keywords: Pseudomonas aeruginosa, immune evasion, type III secretion system, ExoS effector protein, quorum sensing, transcriptomics, macrophage interaction

3.

Mechanistic Insights into the Allosteric Regulation of Catalytic Triads in Serine Proteases

Ingrid J. Müller, Chen Liang-Zhi, Thandeka Ndlovu

Keywords: serine proteases, allosteric regulation, catalytic triads, X-ray crystallography, molecular dynamics, enzyme kinetics, mutagenesis

4.

Innovative Antibody Engineering Techniques for Enhanced Immunotherapy Efficacy

Anna-Maria Heine, Wu Jian-Hong, Nandini A. Patel

Keywords: antibody engineering, immunotherapy, phage display, monoclonal antibodies, site-directed mutagenesis, bispecific antibodies, affinity maturation, computational modeling

---

5.

Integrative Approaches to Protein-Protein Interaction Networks in Cancer Therapy

Jasper L. van der Meer, Mei-Ling Huang, Ahmed Al-Hashimi

Keywords: protein-protein interaction, cancer therapy, bioinformatics, machine learning, TCGA, network analysis

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6.

Modulation of Synaptic Plasticity by Astrocytic Calcium Signaling in Cortical Neurons

Anja R. Müller, Hiroshi Saito, Fatima El-Raziq

Keywords: synaptic plasticity, astrocytes, calcium signaling, cortical neurons, long-term potentiation, two-photon imaging, electrophysiology

---

7.

Innovative Gene Therapy Approaches for Hereditary Retinal Degeneration

Svenja Müller, Hiroshi Nakagawa, Faiza El-Hashemi

Keywords: gene therapy, retinal degeneration, CRISPR/Cas9, adeno-associated virus, photoreceptor, gene editing, ocular genetics

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8.

Dynamic Interactions and Stability in Multi-Domain Protein Folding: A Biophysical Approach

Anja M. Bauer, Yu-Ting Huang, Arjun R. Mehta

Keywords: protein folding, multi-domain proteins, biophysics, single-molecule FRET, molecular dynamics, inter-domain interactions