Special Issue

Mechanobiology in Biomedical Engineering

Message from the Guest Editors

Advances in mechanobiology research continue to shape our understanding of how physical forces and mechanical properties influence biological processes. Understanding the impact of mechanical forces on cancer progression, metastasis, and treatment response could lead to the development of new therapies and diagnostics. In orthopedics, mechanobiology research on bone and cartilage helps in the treatment of osteoporosis and osteoarthritis. Knowledge of how mechanical forces affect neural development and regeneration is valuable for neurodegenerative diseases and spinal cord injuries. Mechanobiology has also influenced drug discovery by identifying mechanosensitive drug targets and developing screening assays. Moreover, understanding the mechanical properties of tissues under different conditions is a fundamental aspect of mechanobiology. In summary, mechanobiology has diverse applications in biology, medicine, and engineering, leading to advancements in healthcare, tissue engineering, and our overall understanding of life processes. In this Special Issue, all original research articles and reviews in mechanobiology are welcome.

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Deadline for manuscript submissions

closed (28 February 2025)

Bioengineering

an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed

mdpi.com/si/185733

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Editor-in-Chief

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