

# Biophysical Journal

## Call for Papers

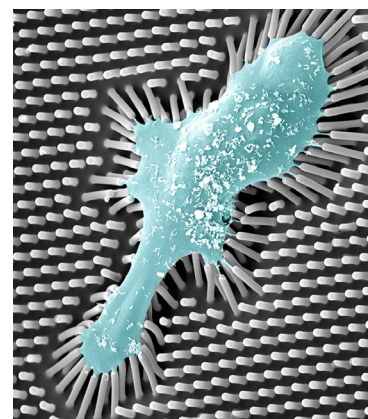
### Special Issue: Materials and Measurement in Mechanobiology

**Editors:** *Jianping Fu (University of Michigan)*  
*Treena Arinzeh (Columbia University)*  
*Guy Genin (Washington University in St. Louis)*

Mechanobiology is a rapidly advancing, interdisciplinary field that investigates the critical role of physical forces and mechanical properties in biological systems across scales—from molecules and cells to tissues and organs. Exciting new developments in biomaterials and measurement technologies are enabling unprecedented capabilities for controlling and quantifying the mechanical microenvironment of living systems. These emerging tools promise to yield transformative insights into the mechanobiology of development, physiology, and disease.

To highlight cutting-edge work at the interface of mechanobiology, materials science, and biophysical measurement, *Biophysical Journal* is pleased to announce a special issue on the theme of “Materials and Measurement in Mechanobiology.” We invite original research article submissions and review articles showcasing innovative materials-based or measurement-based approaches that advance the frontiers of mechanobiology. Potential topics include but are not limited to the following:

- Novel biomaterials for modulating mechano-signaling and mechano-transduction
- Synthetic biology approaches for modulating mechano-signaling and mechano-transduction
- Active materials that provide dynamic mechanical cues to cells and tissues
- Engineered microenvironments for organoids and organs-on-chip
- Nanotechnologies for probing and manipulating molecular-scale forces
- Super-resolution imaging of force transmission and sensing in living systems
- Advanced measurement techniques for quantifying cellular/tissue mechanics in vivo
- Theranostic materials and devices at the mechanobiology-medicine interface
- Computational materials design for programming biological mechanical responses



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#### Deadline for submission: September 15, 2024

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- Instructions for authors can be found at: <https://www.cell.com/biophysj/authors>.
- Please include a cover letter stating that you would like to contribute to the Materials and Measurement in Mechanobiology special issue and please describe why the work fits into the issue.
- All accepted articles will undergo a normal peer review process to ensure scientific quality and impact and will appear online as soon as accepted, even if submitted early.
- Normal publishing charges will apply.
- Inquiries about the special issue can be directed to Guest Editors Jianping Fu ([jpfu@umich.edu](mailto:jpfu@umich.edu)), Treena Arinzeh ([tla2132@columbia.edu](mailto:tla2132@columbia.edu)), or Guy Genin ([genin@wustl.edu](mailto:genin@wustl.edu)).



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