

# Biophysical Journal Call for Papers



## Special Issue: Physical Properties of Cells: From Measurement to Medicine, A Tribute to Jochen Guck

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This special issue of *Biophysical Journal* honors the scientific legacy of Jochen Guck (1972–2025), whose pioneering work fundamentally shaped the field of cell mechanics and physical cell phenotyping. Jochen Guck's research bridged physics, biology, and medicine and established mechanical properties of cells as powerful descriptors of cellular state, function, and disease.

Beyond specific technologies, Jochen Guck played a central role in establishing the physics of living matter as an independent and impactful field. This special issue aims to reflect both the breadth of his influence and the current state of a rapidly evolving discipline that is increasingly relevant to biology and medicine.

We invite original research articles, methods papers, and perspectives that build upon, intersect with, or are inspired by Jochen Guck's contributions. The scope and topics of interest include (but are not limited to) the following:

- Cell mechanics and mechanobiology, including experimental and theoretical approaches to cellular mechanical properties and mechanotransduction
- Optical and biophotonic techniques for probing cells and tissues, such as optical stretching, Brillouin microscopy, and related imaging modalities
- Microfluidic and high-throughput methods for mechanical phenotyping, including RT-DC and data-driven analysis approaches
- Mechanical aspects of cell biology and development, including differentiation, morphogenesis, and tissue organization
- Stem cell mechanics and hematology, with links to lineage commitment and function
- Cancer and disease biomechanics, including mechanical markers of disease progression and diagnostic applications
- Theory, modeling, and data analysis of cell and tissue mechanics, integrating experiments with computational and machine-learning approaches

This memorial issue will both celebrate Jochen Guck's lasting scientific impact and provide a snapshot of current advances in cell mechanics and physical phenotyping.

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### Deadline for submission: September 30, 2026

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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 Jochen Guck special issue and please describe why the work fits into the issue.
- All accepted articles will be reviewed upon receipt and will appear online as soon as accepted, even if submitted early.
- Normal publishing charges will apply.
- Questions can be addressed to the BJ Editorial Office at [BJ@biophysics.org](mailto:BJ@biophysics.org) or to (240) 290-5600.



To submit, visit <https://www.editorialmanager.com/biophysical-journal/>