

Biophysical Journal Call for Papers



Photo by Sandra Kicman

Special Issue: Advances in Mechanotransduction, Dedicated to Frederick Sachs

Editors: *Arthur Beyder and Valeria Vásquez*

Biophysical Journal extends an invitation for contributions to a special issue dedicated to Frederick "Fred" Sachs, who was a pioneer and relentless innovator in the field of biophysics of cellular and molecular mechanosensation. Sachs, a Distinguished Professor of Physiology and Biophysics at the Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, passed away in December 2023 at the age of 82.

Sachs's unique physical feel for biology and quantitative approaches drove wide-ranging discoveries and conceptual advances. He helped establish the concept that physical forces activate mechanosensitive ion channels and developed theories on the biophysics of their operation. He identified natural compounds to modulate mechanosensitive channel function and developed software and hardware for stimulation and analysis of these channels. His work had important translational and clinical implications, including novel medicines. Sachs's ideas and tools have been widely adopted by his peers who continue to use them to explore novel concepts in biology.

This special issue seeks to celebrate the enduring legacy of Fred Sachs by showcasing cutting-edge research across the diverse spectrum of biophysics. We invite submissions of original research articles, reviews, and perspectives aligned with Sachs's areas of interest in mechanotransduction, such as quantitative electrophysiology and modeling, cellular and molecular mechanotransduction, pharmacology and toxins, and software and hardware design. We encourage scientists from academia and industry to contribute to this special issue as a tribute to Fred Sachs, whose impactful work has left an indelible mark on the field of biophysics.

Deadline for submission: January 31, 2025

- 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 Fred Sachs special issue and please describe why the work fits into this issue
- Normal publishing charges will apply.
- Questions can be addressed to the BJ Editorial Office (BJ@biophysics.org), Arthur Beyder (beyder.arthur@mayo.edu), or Valeria Vásquez (valeria.vasquez@uth.tmc.edu).



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