

BDR SEMINAR (Kobe & online hybrid)

Ewa Paluch

Department of Physiology, Development and Neuroscience,
University of Cambridge

Friday, June 14, 2024

11:00-12:00

1F Auditorium, DB Building C, Kobe / Broadcast online via Zoom
Zoom meeting URL will be announced on the event day by e-mail.

※This seminar is open only to BDR members.

Cross-talk between cell mechanics, cell shape and cell fate

Summary

A precise control of cell morphology is key for cell physiology, and cell shape deregulation is at the heart of many pathological disorders. Furthermore, transitions in cellular fate and state are often associated with changes in cell shape, and strong evidence points to the existence of feedbacks between mechanics, morphology and fate decisions. Cell morphology is intrinsically controlled by mechanical forces acting on the cell surface, to understand shape it is thus essential to investigate the regulation of cellular mechanics. I will discuss how cellular mechanical properties are regulated, how they drive cellular shape changes, and the cross-talk between cell mechanics and state/fate in cellular transitions in development and in stem cells.



RIKEN Center for Biosystems Dynamics Research (BDR)

Host: Li-Kun Phng

Laboratory for Vascular Morphogenesis

Contact: likun.phng@riken.jp