Cologne Evolution Colloquium

CRC 1310 Predictability in Evolution

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How cell-state and signalling determine single-cell responses

In this presentation, I will discuss our recent research exploring the factors influencing individual cell fate decisions in response to anti-cancer drugs. The first part of my presentation will focus on the impact of cyclic cellular states on how cells react to chemotherapeutic drugs. In the second part, I will delve into a recent study examining the sources of proliferation diversity at the single-cell level, and how these factors, coupled with the dynamics of p53-p21 signalling, regulate proliferation and radiation resistance. These findings underscore the significance of studying the trajectories of individually resolved cell states and signalling dynamics. This knowledge is essential for understanding the individual cell decisions that collectively determine proliferation properties and overall responses to drug treatments.

Wednesday, 05 June 2024, 17:00
Institute for Biological Physics, Zülpicher Str. 77a
Seminar Room 0.02, Ground Floor
Hosted by Katarzyna Bozek