

Regular Wednesday IMG seminar



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“Structural basis of MICAL autoinhibition and activation”

In this talk, we will explore the role of MICAL proteins in cellular dynamics, focusing on their ability to disassemble actin filaments and their implications for processes like axon guidance, cytokinesis, and cell morphology. We will present our recent findings based on the cryo-EM structure of human MICAL1, which reveal the molecular mechanisms underlying MICAL1 autoinhibition. Specifically, we will discuss how an intramolecular interaction between the N-terminal catalytic and C-terminal coiled-coil domains blocks F-actin interaction, and how structural changes and domain interactions mediate activation. These findings highlight evolutionarily conserved mechanisms within the MICAL family, shedding light on their broader functional relevance.

The seminar will be held

on Wednesday 18th December 2024 at 15:00

in the Milan Hašek Auditorium at IMG

(Institute of Molecular Genetics of the Czech Academy of Sciences, Vídeňská 1083, Prague 4)
