

Regular Wednesday IMG seminar



Assoc. Prof. Pavel Plevka, Ph.D.

Central European Institute of Technology (CEITEC)

“Enterovirus infection studied by cryo-EM”

Enteroviruses from the family *Picornaviridae* cause a wide range of diseases, including the common cold, hand-foot-and-mouth disease, encephalitis, and paralysis, with major health, economic, and societal impacts. To initiate infection enteroviruses must deliver their genomes into the cell cytoplasm. However, the mechanism how enteroviruses cross the endosome membrane into the cytoplasm remains unknown. We discovered that enterovirus-containing endosomes deform, rupture, and release virus particles into the cytoplasm. Moreover, we show that endosome disruption also occurs in uninfected cells and after the endocytosis of very low-density lipoprotein and demonstrate that this process depends on N-WASP-regulated actin polymerization. Our results identify endosome membrane remodeling as a new target for the development of therapeutics against enterovirus infections.

The seminar will be held

on Wednesday 8th November 2023 at 15:00

in the Milan Hašek Auditorium at IMG

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