

Regular Wednesday IMG seminar



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“Initiating mechanisms of autoinflammatory osteomyelitis: dysregulated neutrophil recruitment and tyrosine kinase signaling”

Autoinflammatory diseases result from inappropriate activation of the innate immune system in the absence of infection. Loss of PSTPIP2, a membrane adaptor protein, leads to the development of one such disease Chronic Multifocal Osteomyelitis (CMO), an autoinflammatory disease in mice which serves as a model for Chronic Recurrent Multifocal Osteomyelitis (CRMO) in humans. Neutrophils are essential for murine CMO initiation and contribute to tissue damage, but the early events that trigger their pathogenic activity remain poorly defined. Our work shows that early alterations in neutrophil signaling and migration precede both classical inflammatory cytokine responses and the appearance of overt disease symptoms. Pharmacological inhibition of some of these early pathways reduces disease severity and neutrophil activation. Together, these findings identify the initiating mechanisms of sterile bone inflammation in the mouse model of autoinflammatory osteomyelitis and provide potential targets for therapeutic intervention.

**The seminar will be held
on Wednesday 18 February 2026 at 15:00
in the Milan Hašek Auditorium at IMG**

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