SEMINAR

Who: Prof. Dr. Sascha Martens
Max Perutz Labs
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Host: Prof. Dr. Janine Kirstein
Leibniz Institute of Aging- FLI

Title: Mechanisms of Selective Autophagy

2026 Tue Nov. 17th 3 p.m.

SYNTOPHAGY RESEARCH UNIT 5228

Where: FLI
Beutenbergstraße 11
07745 Jena
Seminar Room: Nucleus

Link: https://eu02web.zoom-x.de/j/64104743590

Abstract:

Autophagy is an intracellular lysosomal bulk degradation pathway that ensures cellular homeostasis by the removal of damaged and dangerous material from the cytoplasm. This is achieved by the sequestration of the cytoplasmic cargo material within double membraned organelles called autophagosomes. The selective sequestration of only specific cargo material is mediated by cargo receptors that link the cargo to the nascent autophagosomal membrane. How cargo selection, membrane nucleation and growth are coupled is unclear. I will present our recent work on the cargo receptors and the autophagy machinery derived from in vitro reconstitution systems and cell biology. In particular, I will discuss how cargo receptors and the autophagy machinery act sequentially during cargo recognition, membrane nucleation and elongation to mediate the specific sequestration and subsequent degradation of cellular material.