

Guest lecture

"Novel and conserved modulators of autophagy and longevity"

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10 AM in the BMB seminar room

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Abstract: Miscoordination of autophagosome formation and lysosomal degradation is pathologically significant in metabolic and neurodegenerative diseases. We are looking for solutions for this age-related problem by studying metabolic and transcriptional modulations of the autophagy process. Here, I will present our latest work on the modulation of autophagy by lipid and lipoprotein metabolism and its impact on longevity in worms and mice. This study highlights the major contribution of lipoprotein biogenesis in organismal lipid distribution and long-term survival. I will also present ongoing work on the enhancement of the autophagy-regulating transcription factor HLH-30/TFEB in worms and mammalian cells. Our work supports a rationale for the development of therapeutic interventions that could specifically activate TFEB and protect against neurodegeneration in humans.

Host: Professor Nils J. Færgeman, Department of Biochemistry and Molecular Biology, SDU.