

Aging Science Seminar

“Screening for regulators of cellular senescence”

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Cellular senescence is a stable proliferation arrest induced by stresses, such as telomere shortening and oncogene activation. Senescence plays a major role in physiopathological contexts such as tumorigenesis and ageing, therefore it is crucial to understand how it is regulated. The p53 and p16/RB pathways are key players in this process but the other pathways implicated are poorly characterized. In a functional genetic screen our lab recently identified several ion channels as senescence regulators. I will present our data on the role of one of them, ITPR2 (inositol 1,4,5trisphosphate receptor type 2), in promoting senescence through calcium release from the endoplasmic reticulum, calcium accumulation in the mitochondria and production of reactive oxygen species. I will then talk about our current effort to understand the transcriptional regulation of ITPR2 using another functional genetic screen. Altogether this work sheds light on a new pathway controlling senescence.

Date: Friday, November 4th, 2016: Time: 16:00~17:00

Location: Biken Hall, 1st floor, main building, Research Institute for Microbial Diseases (微生物病研究所 本館1階 微研ホール)

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