

Seminar

Primary cilia dynamics in ageing and regeneration

Primary cilia are specialized organelles involved in development, proliferation and cell signalling. Increasing evidence suggests that primary cilia regulate cellular ageing, but there is a limited understanding of their role in the pathophysiology of the liver. Our studies reveal that primary cilia are significantly affected during organ transplantation. During procurement donor livers are kept on ice for up to 12 hours-exacerbating ischemia- which results in ciliary shortening and cellular senescence. Our results indicate that primary cilia damage results in loss of regenerative potential and complications after transplantation. We also explored how targeted interventions for cellular senescence and stabilization of the primary cilia may provide a therapeutic opportunity to reduce the rate of complications and improve clinical outcomes in liver transplantation. These findings highlight the importance of primary cilia in cellular senescence onset, and suggest potential new avenues to target systemic ageing and to promote tissue regeneration.

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Time and Date

16:00-17:00

Monday, November 18, 2024

Venue

**Biken Hall, 1F Main building,
Research Institute for Microbial Diseases (RIMD)**

※ This seminar is a credit seminar for the Graduate School of Medicine and
Graduate School of Frontier Biosciences

(No registration required)



RIMD

Research Institute for
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