BDR SEMINAR(Kobe&Virtual)

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Tuesday, June 14, 2022

14:00-15:00

1F Auditorium, DB Building C, Kobe & Broadcast online via Zoom

Zoom meeting URL will be announced on the event day by e-mail.

※This seminar is open only to BDR members.

Proteostatic Regulation of Quiescence in Adult Neural Stem Cells

Summary

Quiescence is essential to avoid premature exhaustion of neural stem cells, ensuring a sustainable source of available stem cells. Most neural stem cells in the adult brain are known to be quiescent –a state of reversible cell cycle arrest. I would like to elucidate the mechanism of how NSCs manage the delicate balance between proliferation and quiescence for a long time in the adult brain. I have focused on protein homeostasis (proteostasis) to elucidate the mechanism governing quiescence of NSCs. As a result, I have discovered that lysosomes, small intracellular organelles responsible for final degradation, actively regulate the quiescent state of NSCs. We have also recently revealed that exosomes, small extracellular vesicles, regulate protein translation of quiescent NSCs in a repressive manner. In this seminar, I would like to discuss our findings on the regulatory mechanisms of NSC quiescence.

Host: Mitsuru Morimoto

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