

147th WPI-IIIS Seminar

Genome Editing in Mammalian Brain *in vivo*: Key Technologies and Future Applications

Rapid and precise genome editing using CRISPR-Cas systems is a powerful technology in various scientific fields. Especially, genome editing through homology-directed repair (HDR) provides a versatile approach to precisely introduce insertions, deletions or replacements in the genome. However, it has been considered to be difficult to induce HDR in postmitotic neurons, limiting the application of precise genome editing in the field of neuroscience. Here Dr. Mikuni presents two strategies, SLENDER and vSLENDER, to induce HDR-mediated genome editing in mammalian brain *in vivo* (*Cell* 2016, *Neuron* 2017). Rapid and precise genome editing in the brain will allow for a wide range of applications in neuroscience research, such as high-throughput monitoring and manipulation of endogenous gene products in brain tissue.



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Date: **Wednesday, April 10, 2019**

Time: **12:00 – 13:00**

Venue: **1F Auditorium, IIIS Building**



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