

ASHBi-CiRA SEMINAR

**Rapid protein depletion by the auxin-inducible
degron technology and an application to study
genome maintenance in human cells**

Lecturer: **Dr. Masato Kanemaki**

National Institute of Genetics

Date: Monday, 26th August 2019

Time: 16:30-18:00

**Venue: Lecture Hall 104, 1st floor,
Center for iPS Cell Research and Application Bldg.**

Genetic perturbation is a powerful way to analyze the function of proteins in vivo. For this purpose, we pioneered to develop the auxin-inducible degron (AID) technology (Nishimura et al, Nat. Meth., 2009). By combining with CRISPR-based genome editing, it is now possible to generate AID conditional mutants of human cells (Natsume et al., Cell Reports, 2016; Yesbolatova et al. Methods, 2019). I would like to share the history as well as our recent improvements. Finally, I would like to share our findings regarding a new DNA synthesis pathway caused by an artificial degradation of the replisome and to discuss its relation to meiotic recombination.

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