ヒト疾患モデル研究センター・生命研合同セミナー

日時　2018 年 12 月 6 日（木）16：30〜18：00

場所　生命医科学研究所２階大講義室

演者　Dr. Kenjiro Adachi
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演題　**Unlocking silenced enhancers for reprogramming to naïve pluripotency**

概要

Transcription factors (TFs) play a central role in establishing and maintaining cell identity. It is often observed that expression of a single or a few TFs is crucial for cell fate decisions during development. Such TFs, called “master regulators”, function at the top of transcriptional regulatory hierarchies. Many master regulators also act to reconstruct whole regulatory networks when ectopically expressed in other cell types, eventually leading to cellular reprogramming. Pluripotent cells can be induced from somatic cells by the combined expression of pluripotency-specific TFs such as Oct4, Sox2, and Klf4, but the reprogramming process is slow and inefficient. This is because most pluripotency TFs fail to access relevant target sites in a refractory chromatin environment. It is unclear how TFs actually orchestrate the opening of repressive chromatin during the long latency period of reprogramming. I discuss the role of TFs in remodeling chromatin structure and acquiring pluripotency.

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