



TARA

Life Science Center for Survival Dynamics
Tsukuba Advanced Research Alliance

TARA Seminar

13:00~14:00, Mon. Apr. 1st, 2019

Seminar room, Building A, TARA Center

Dr. James F. Martin

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Regenerative Medicine
Department of Molecular Physiology
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Hippo-signaling in Heart Regeneration

The mammalian heart regenerates poorly, and damage commonly leads to heart failure. The Hippo pathway is an evolutionarily conserved kinase cascade that regulates heart size during development and prevents adult mammalian cardiomyocyte regeneration by inhibiting the transcription cofactor Yap. We identified Yap target genes that are activated during cardiomyocyte renewal and regeneration by performing chromatin immunoprecipitation sequencing (ChIP-Seq), mRNA expression profiling, and other genome-wide approaches in Hippo-deficient hearts. Our findings indicated that Yap regulates genes important for cell cycle progression, genes encoding proteins that promote F-actin polymerization and link the actin cytoskeleton to extracellular matrix. I will discuss our latest findings that reveal new insights into heart regeneration.

Leach, JP et al. Nature 550:260-264 (2017). Wang, J. et al. Nat Rev Cardiol 15(11):672-684(2018). Monroe, TO et al. Dev Cell 48(6):765-779.e7(2019).

The seminar will be given in English.

Organizer; Prof. Hiromi Yanagisawa <hkyanagisawa@tara.tsukuba.ac.jp>

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