



CDB SEMINAR

Rafal Ciosk

Friedrich Miescher Institute for Biomedical Research

Friday, March 19, 2010

13:30~14:30 A7F Seminar Room

Translational control of the self-renewal versus differentiation decision in the germ line.

Summary

Balancing proliferation and differentiation is critical for development and tissue self-renewal. In the germ line, the self-renewal versus differentiation decision depends on many conserved RNA-binding proteins.

However, how precisely these proteins control the cell cycle status has remained elusive. Using *C. elegans* as a model, we find that translational regulation of cyclin E/CDK-2 activity determines whether germ cells self-renew or differentiate. Interestingly, this regulation is also critical for germ line totipotency, providing a paradigm for the possible origin of human teratocarcinomas.

Host:

Asako Sugimoto

Developmental
Genomics, CDB
sugimoto@cdb.riken.jp

Tel: 078-306-3256
(ext: 1733)

RIKEN CENTER for DEVELOPMENTAL BIOLOGY (CDB)