



CDB SEMINAR

Speaker: Peter Ladurner

< Institute of Zoology and Limnology, University of Innsbruck >

Title: “Characterization of the stem cell system of basal flatworms”

Date:	Thursday, July 1
Time:	16:00 P.M. ~ 17:00 P.M.
Place:	1F Auditorium of Building C, CDB

Summary:

A totipotent stem cell system is known to exist in Platyhelminthes. Pluri- or totipotent stem cells (neoblasts) remain mitotically active throughout adult life and are responsible for physiological cell renewal and the exceptional regenerative abilities of most free-living forms ("Turbellaria"). Neoblasts comprise a pool of undifferentiated cells in the parenchyma. BrdU and phosphorylated H3 labeling revealed the number, distribution, migration, and dynamics of S-phase and mitotic neoblasts in the basal free-living flatworm *Macrsotomum lignano* and the acoel *Convoluta pulchra*.

It is not clear whether germ line cells are derived from the totipotent neoblasts during postembryonic development and regeneration or if a true germ line exists in basal Platyhelminthes and Acoels. Studies on the embryonic development of turbellarian flatworms have not been able to identify a segregation of a germ line. Currently, stem cell and germ line specific molecular markers are isolated to address these questions.

Host : Kiyokazu Agata Evolutionary Regeneration Biology , CDB

E-mail: agata@cdb.riken.go.jp Tel: 078-306-3085(Ext.4530)
RIKEN Center for developmental Biology <http://www.cdb.riken.go.jp/>