CDB SEMINAR

Speaker: Stephen Cohen

European Molecular Biology Laboratory

http://www-db.embl-heidelberg.de/jss/emblGroups/per_195.html

Title: “ microRNAs and growth control “

Date: Friday, May 28

Time: 14:00 P.M.～15:00 P.M.

Place: Auditorium of Building C, CDB

Summary

During animal development the rates of cell growth, cell division and cell death are carefully balanced to produce tissues and organs of the proper size. To study the mechanisms that link these cellular-level processes to pattern formation, we have carried out screens to identify genes whose primary function is in tissue/organ size control. In addition to protein-coding genes, this screen identified two genes that encode microRNAs. The *bantam* microRNA controls cell proliferation and apoptosis. A second miRNA influences growth and metabolism. To understand how microRNAs control these complex biological processes, it is necessary to identify the target genes that they regulate. microRNAs are small RNAs of ~22 nucleotides that regulate gene expression by binding to complementary sequences in messenger RNAs. Identification of miRNA targets in animal cells is hampered by the limited extent of base pairing between miRNAs and their target mRNAs. Computational methods to predict targets for miRNAs show promise toward identifying biologically relevant targets.

Contact: Shigeo Hayashi /Morphogenetic Signaling, CDB e-mail: shayashi@cdb.riken.jp
Tel: 078-306-3185; RIKEN Center for Developmental Biology, http://www.cdb.riken.go.jp/