



CDB SEMINAR

Speaker: **William M. Bement**

< Department of Zoology, University of Wisconsin-Madison >

Title: **“Control of dynamic contractile arrays by local zones of active rho class GTPases”**

Date:	Thursday, October 20
Time:	13:30~14:30
Place:	7F Conference room of Building A

Summary:

Rapid formation of local contractile arrays is a common feature of many cellular and developmental processes. Such arrays are comprised of actin filaments (F-actin) and myosin-2 and tend to be surprisingly dynamics, such that local contractility occurs against a backdrop of constant actin and myosin-2 assembly and disassembly. To understand how such arrays function and are controlled, we have investigated the distribution of the active forms of two small GTPases, Rho and Cdc42 during single cell wound healing and cytokinesis. In both cases we find that these GTPases are activated in precise, dynamic zones near their site of action. Remarkably, each of the GTPase zones occupies different portions of the plasma membrane during wound healing and at least one form of cytokinesis. Further, each zone plays distinct roles in the formation and function of the dynamic contractile arrays.

Host : **Shigenobu Yonemura** <Cellular Morphogenesis, CDB>

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