



# CDB SEMINAR

Speaker: **Thomas Lecuit**  
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[http://www.ibdm.univ-mrs.fr/Textes-GB/l\\_LECrsA.html](http://www.ibdm.univ-mrs.fr/Textes-GB/l_LECrsA.html)

Title: “ Regulation of actin dynamics during  
epithelial intercalation “

Date: Thursday, October 20  
Time: 16:00 P.M. ~ 17:00 P.M.  
Place: Auditorium of Building C, CDB

## Summary

Shaping a developing organ or embryo relies on the spatial regulation of cell behaviour. Tissue extension for instance relies on cell intercalation, a general process whereby cells exchange neighbours along a given axis. During *Drosophila* germband extension, epithelial cells intercalate and contribute actively to the elongation of the embryonic epithelium along the antero-posterior axis.

During epithelial intercalation, cell adhesion at adherens junctions (Ajs) is regulated in the plane of the epithelium. Cell intercalation proceeds in two steps, starting with the disappearance of cell contacts at Ajs between antero-posterior neighbours, followed by the appearance of new contacts with dorsal and ventral neighbours. The polarized remodelling of Ajs requires the planar polarized enrichment of Myosin II in shrinking junctions. We recently characterized cdGAP as a new molecular partner of Myosin-II. CdGAP is a GAP of Cdc42 and Rac1 in mammals and interacts with both Myosin-II HC and Cdc42 and Rac1 in *Drosophila*. We will present molecular and functional data supporting the role of cdGAP during cell intercalation. Our data sheds light on the spatial regulation of actin dynamics supporting cell intercalation.

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