

CDB SEMINAR

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Monday, April 3 16:00~17:00 C1F CDB Auditorium

Cell movements and shape changes during early anterior patterning in the mouse

Summary

Cell movements play a central role throughout embryogenesis. Such movements are accompanied and often driven by cell shape changes. In the pre-gastrulation mouse embryo, anterior pattern is established by the directional migration of the Anterior Visceral Endoderm (AVE), an extra-embryonic tissue. This migratory behaviour is accompanied by changes in the shape and behaviour of AVE cells. I will discuss a new approach we have recently taken to model and quantify cell shape changes during early embryogenesis, specifically as it relates to anterior patterning. I will also briefly talk about preliminary work using time-lapse microscopy to study dynamic cell movements in the epiblast of pregastrulation embryos, and cardiac morphogenesis in early head-fold stage embryos.

Speaker profile

Shankar has been looking at the migration and fate of cells in the mouse embryo. He is now at the University of Oxford in the UK, but previously worked with Dr. Rosa Beddington and Frank Costantini, where he used genetic marking of cells in the AVE and Ureteric Buds respectively to analyse fate changes.

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