



CDB SEMINAR

Janet Rossant

The Hospital for Sick Children and University of Toronto

Thursday, January 11

11:00~12:00 C1F CDB Auditorium

Lineage decisions in the early mammalian embryo

Summary

Just prior to implantation, the mouse blastocyst contains three distinct lineages, the pluripotent epiblast (EPI) and the extraembryonic trophoblast (TE) and primitive endoderm (PE). Segregation of the three lineages depends on the expression of lineage-specific transcription factors, Oct4, Nanog, Cdx2 and GATA6. I will describe genetic and cell-based experiments that suggest that cell polarization and differential cell sorting leads to the separation of the three lineages by the blastocyst stage. After implantation, the epiblast undergoes gastrulation leading to the establishment of the primary germ layers and the major body axes. I will also discuss some new data on the cellular and molecular events of early node and notochord development and their impact on axis formation.

Host:

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