



セミナーのお知らせ

日時：平成28年3月8日（火）17:00～18:00

場所：医学部本館2階大カンファレンスルーム

Shaping up a cellular lineage:
Lessons from normal and malignant
B-lymphocyte development.

Mikael Sigvardsson PhD

Professor Molecular Hematology Lund University
Sweden

The development of mature blood cells from multipotent stem cell is a complex process involving the coordinated activity of transcription factor networks and extracellular signals. We have explored the molecular regulation of B-lymphocyte development using transgenic mouse models. This has revealed that the process involve distinct phases, specification resulting in the activation of the B-lineage program and commitment to abolish alternative cell fates. Even though these processes are linked via auto-regulatory loops they can be functionally separated. The differentiation pathway is linked to malignant transformation through the action of the transcription factors EBF1 and PAX5, acting in a dose dependent manner to prevent malignant transformation.

The seminar will focus on our recent findings revealing that disruption of transcription factor networks in B-cell leukemia allow for plasticity mediating a cross lineage transfer of the leukemic state to generate T-lineage disease. Further, the seminar presents a protein association analysis revealing novel regulatory networks involving the targeting of broadly expressed DNA binding proteins to lineage restricted target genes by lineage specifying transcription factors.