

Examining mechanisms of commitment in early T cell development with subclones of the the SCID.adh cell line

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We are interested in the early development of T cells in the thymus, specifically the transcriptional regulatory mechanisms involved in a pluripotent progenitor becoming committed to a single lineage. To address this, differing subclones of the SCID.adh DN3 like cell line have been established showing unique developmental potential. While some subclones are plastic and able to respond to ectopically expressed PU.1 by initiating a myeloid developmental pattern (as seen in vivo by forced PU.1 expression), other cell lines are in a more committed state and do not respond to PU.1. Having established the subcloned SCID.adh cell lines as a model for T cell development we are using them to investigate the mechanisms of T lineage commitment.