

TRANSCRIPTION FACTOR FUNCTION IN PLURIPOTENT AND GERMLINE CELLS

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Abstract

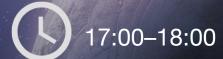
Pluripotency is specified and maintained by the action of cell-specific transcription factors. However, the means by which such transcription factors control cell identity are not fully understood. Here I will discuss our work, focussed on the transcription factor NANOG, to understand how transcription factors operate along with partner proteins to modify target gene transcription and so regulate cell phenotype. I will discuss the role of NANOG in embryonic stem cells before discussing how NANOG and other transcription factors work in the related cells of the early germline.

Short Bio

Ian is the Professor of Pluripotent Stem Cell Biology and Head of the Institute for Stem Cell Research in the School of Biological Sciences at the University of Edinburgh. Ian is also the Associate Director of the Centre for Regenerative Medicine, the only cross-college collaborative center working between the College of Science & Engineering and the College of Medicine and Veterinary Medicine.

Dr. Chambers studies pluripotent cell biology. His lab focuses on how transcription factors interact with one another and with chromatin to control pluripotent stem cell self-renewal and differentiation, with a particular interest in early events during primordial germ cell specification.









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