



The 121st RIKEN

BRC SEMINAR

日時：2014年 3月 4日 (火) 16:00～

場所：バイオリソースセンター1階 森脇和郎ホール

Prof. Ian Chambers

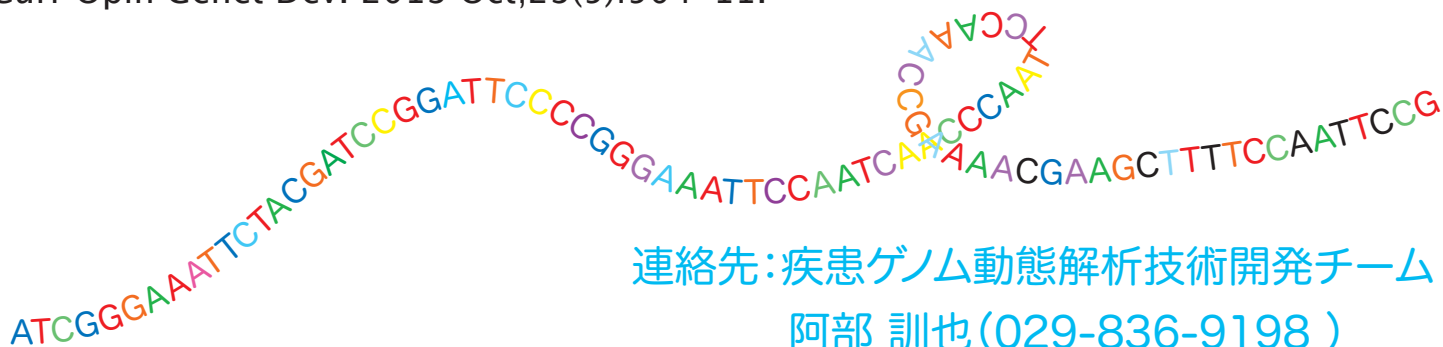
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The role of pluripotency gene regulatory network components in mediating transitions between pluripotent cell states.

Pluripotency is a property that early embryonic cells possess over a considerable developmental time span. Accordingly, pluripotent cell lines can be established from the pre-implantation or post-implantation mouse embryo as embryonic stem (ES) or epiblast stem (EpiSC) cell lines, respectively. Maintenance of the pluripotent phenotype depends on the function of specific transcription factors (TFs) operating within a pluripotency gene regulatory network (PGRN). As cells move from an ES cell to an EpiSC state, the PGRN changes with expression of some TFs reduced (e.g. Nanog) or eliminated (e.g. Esrrb). Re-expressing such TFs can move cells back to an earlier developmental identity and is being applied to attempt establishment of human cell lines with the properties of mouse ES cells.

参考文献

The role of pluripotency gene regulatory network components in mediating transitions between pluripotent cell states. Festuccia N, Osorno R, Wilson V, Chambers I. Curr Opin Genet Dev. 2013 Oct;23(5):504-11.



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