Nac1 Coordinates a Sub-network of Pluripotency Factors to Regulate Embryonic Stem Cell Differentiation

Alfonso Martinez-Arias, Ph.D. Department of Genetics, University of Cambridge, Cambridge, UK.

Mohan Malleshaiah¹, Megha Padi², Pau Rué³, John Quackenbush², Alfonso Martinez-Arias³ and Jeremy Gunawardena¹

¹Department of Systems Biology, Harvard Medical School, Boston, USA. ²Biostatistics and Computational Biology, Dana-Farber Cancer Institute, Boston, USA. ³Department of Genetics, University of Cambridge, Cambridge, UK.

Conclusion and perspectives:
1. A sub-network of pluripotency TFs consisting of Nac1, Oct4, Tcf3, and Sox2 promotes ESC differentiation.
2. Nac1 coordinates sub-network to promote ME and repress NE fate selection.
3. Quantitatively constrained Nac1 and Oct4 favor the ME, and Tcf3 and Sox2 favor the NE fate choice.
4. Similar mechanisms among shared TFs may govern cell-fate decisions during development and in disease states such as cancer.

References:

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