

BME 6110: Stem Cell Bioengineering

Fall 2017

MWF 10:10-11:00am

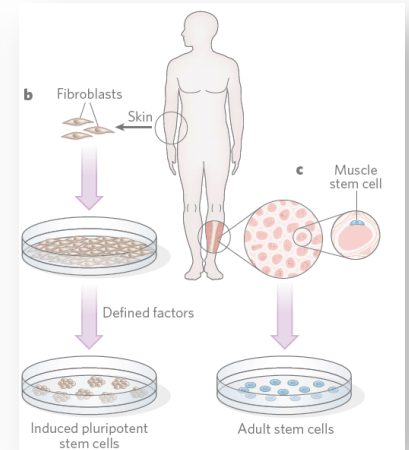
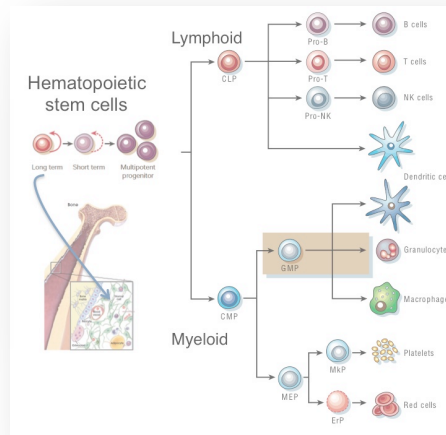
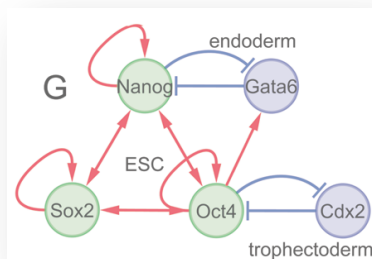
224 Weill, 3 credits

Instructor:

Prof. Ben Cosgrove

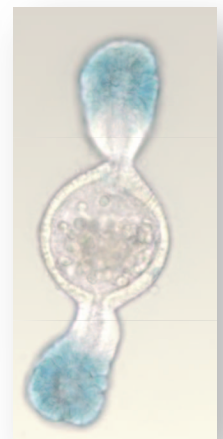
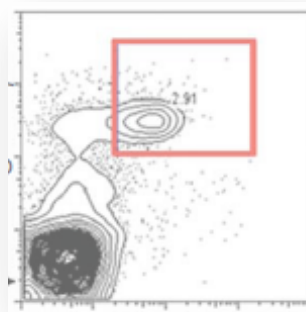
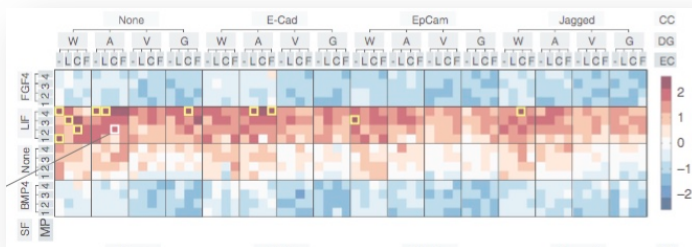
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BME 6110 explores the interface of stem cell biology, bioengineering, and biotechnology. This course is for M.Eng. and Ph.D. students in the biological and/or engineering sciences.



This course covers:

- Embryonic and adult stem cell biology fundamentals
- Cell and molecular biotechnology concepts, design and analysis
- Engineering biomimetic and bioreactor environments to guide stem cell derivation, differentiation, and organogenesis
- Design of genetic and biomolecular therapies to regulate stem cell function



Suggested pre-requisites:

- Molecular/cell biology, Matlab or similar language