COURSE DETAIL

STEM CELLS IN DEVELOPMENT AND REGENERATION
Country Australia
Host Institution University of Melbourne
Program(s) University of Melbourne
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 142
UCEAP Course Suffix
UCEAP Official Title STEM CELLS IN DEVELOPMENT AND REGENERATION
UCEAP Transcript Title STEM CELL: DEV& REG
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines modern stem cell biology with respect to current roles of stem cells in development of organisms, regenerative medicine and ethical considerations of biotechnological applications. Different types of stem cells will be discussed with emphasis on embryonic stem cells compared to adult stem cells and roles in embryonic development and adult tissue regeneration. The role of stem cells in diseases such as cancer, anemia etc., will be discussed by leading stem cell researchers in terms of dysregulation of tissue regeneration and current potential treatment strategies. New therapies based on stem cells such as in vitro production of organs, stem cell transplantation and cloning will be presented along with the ethical dilemmas posted by these advances. The course will also cover the latest advances in Induced Pluripotent Stem cell (iPS) technology and what this tells us about the nature of pluripotency.

Language(s) of Instruction
English

Host Institution Course Number
CEDB30004

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Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2023-2024

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