



Master of Science in Stem Cell Biology and Regenerative Medicine

About the Program

The Master of Science (MS) degree program invites you to chart the course for the medicine of the future—regenerative medicine.

This is one of the first master's programs in stem cell biology and regenerative medicine in the U.S. The program admits up to 35 students per year.

Our one-year program offers courses in cutting-edge biomedical science, including developmental biology and human embryology, stem cell biology and regenerative medicine, and the translational and therapeutic aspects of stem cell technology.

The program also provides practical hands-on laboratory training with human stem cell culture and imaging technologies. In addition, students with excellent academic performance have the opportunity to continue training with a second year that includes a mentored thesis.

After completing this program, you will be poised to apply to a medical or PhD program, enter the growing stem cell pharmaceutical domain, or engage in other academic, clinical, regulatory or business ventures.

The Center

The research conducted at the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC will have an impact on human health around the globe.

Established in 2006 with a gift from Eli and Edythe Broad, and support from the California Institute for Regenerative Medicine (CIRM), the center hosts world-class scientists who are harnessing the power of stem cell biology to treat neurodegeneration; hearing loss; blood, heart and kidney disease; osteoarthritis and bone fractures; and cancer.

USC's talented researchers rely on the center's state-of-the-art facilities in imaging, therapeutic screening, flow cytometry, and genome modification to move discoveries out of the laboratory and into the clinic.

The center also serves as the heart of the Department of Stem Cell Biology and Regenerative Medicine, as well as the USC Stem Cell initiative, an interdisciplinary, university-wide collaboration that leverages the transformative power of stem cells to develop the therapies of the future.

Program Highlights

- **Nationally recognized faculty**
- **Hands-on experience**
- **Completion in one year**
- **Optional second year with thesis**
- **Training in a growing field**
- **Required units: 27**
- **Partial scholarships available**

Keck School of Medicine of **USC**

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The Curriculum

YEAR ONE LECTURE COURSES

SCRM 511	Developmental Biology and Human Embryology
SCRM 513	Stem Cells and Regenerative Medicine
SCRM 515	Bringing Stem Cells to the Clinic
SCRM 555	Writing About Stem Cell Biology and Regenerative Medicine
SCRM 580	SCRM External Speaker Seminar Series
DSR 610	Current Topics in Regenerative Medicine
DSR 620	Current Topics in Stem Cell Biology and Organogenesis

YEAR ONE ELECTIVE COURSES (CHOOSE ONE)

Elective courses focus on historical and contemporary research in the following areas:

SCRM 517	HPSCs (Blood Stem Cells)
SCRM 519	Neural Stem Cells
SCRM 521	Tissue Development Engineering

YEAR ONE HANDS-ON COURSES (CHOOSE TWO)

SCRM 522L	Biological Imaging in Stem Cell Research
SCRM 524L	Culture and Differentiation of Human Pluripotent Stem Cells
SCRM 526	Data Analysis in Stem Cell Biology

OPTIONAL RESEARCH AND YEAR TWO THESIS

Students are encouraged to seek out research opportunities in medical school laboratories during the year-long program. At the conclusion of year one, students may request permission to continue their training with a second year that includes a mentored thesis project.

For more information and to apply, please visit scrm.usc.edu



CHAIR

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...and other faculty affiliated with USC Stem Cell

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