

CIRM-funded Bridges to Stem Cell Research (BSCR) Program

<http://biology.fullerton.edu/stemcells/>

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What are stem cells?

- **TYPES: Embryonic SC, Adult SC, Induced Pluripotent SC, cancer SC, etc**
- **Able to grow indefinitely without differentiating**
- **Able to differentiate into many cell types**
- **Most promising new technology for regenerative medicine and/or customized medicine**

CIRM's Goals

- **CIRM: California Institute for Regenerative Medicine**
- **CIRM wants students to enter the field of stem cell research because...**
 - **...it is the next frontier in biotech**
 - **...stem cell research is booming in California, and**
 - **...there is lack of personnel with stem cell training**
- **They are hoping for students to enter the work-force at all levels: technicians, PhD, MD, DDS, MBA**

BSCR Program: Goals

Prepare students so that they can excel during their intense stem cell research experience at the Host campuses through:

1. “Independent Research” (BIOL 499L) experience on CSUF campus
2. Stem cell-related course-work (Fall semester)
3. Improved communication, presentation, goal-setting, and strategic planning skills (BIOL 480C)
4. Internship selection process (e.g. find the best “fit”)

Internship Host sites are: UCI, UCR, USC, and CHOC

BSCR Program: Benefits

- Expertise in Stem Cell Research
- Academic advancement and scholarly gains
- Tuition covered (up to \$5,000 for 2010-11 AY)
- Stipend during internship (\$2,500/month)
- Total financial benefit: up to \$21,750
 - -\$750 for the summer course
 - Cannot work elsewhere from June '10 – August '11
- Possibility of additional/stronger recommendation letters for the BSCR Scholar (intern)
- Courses apply to your B.S. in Biology (C&D, MBB)

BSCR Program: Timeline

- February 20th – applications available online
- March 24th – applications due
- April – interviews
- By May 1st – 10 SC Scholars announced
- June 1st to 29th – Special Lab Techniques course
(students pay for this BIOL 329 course)
- June 1st to December – Research in the lab (volunteer)
- Fall semester – enroll in SC-related courses (certain tuition fees waived) – part-time research in the lab
- Jan '11 to August '11 – Full-time internship (stipend)₆

BSCR Program: Coursework

Summer semester:

- June 1st to 29th – Lab Techniques course (BIOL 329)
- Full-time research in a CSUF lab (volunteer)

Fall semester:

- BIOL 427 – Stem Cell Biology (Lecture)
- BIOL 429 – Techniques in Stem Cell Biology (Lab)
- BIOL 480C – Profession Seminar (internship prep.)
- BIOL 499L – Independent Research
- PHIL 314 – Medical Ethics

Spring semester (2011): Internship (BIOL 495)

BSCR Program: Applications

Successful students will have...

- Good GPA (>3.0?)
- completed BIOL 302 + BIOL 303 or BIOL 309
- May have completed BIOL 405
- Can show their interest in stem cell research
- ALL CSUF students are eligible (no preferences)
- Prior research experience is not needed!
- Need 3 recommendation letters from Instructors