

# STEM CELLS AND BIOTECHNOLOGY

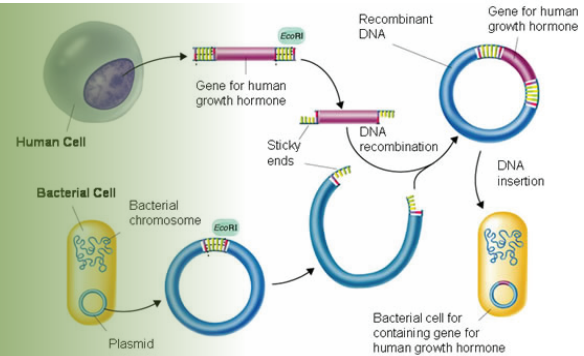
**Age:** 11-15

**2023 Dates:** July 17th – 21st | August 7th - 11th

**Duration:** Five Days

**Location:** Torrance, California

\$895



## Explore the fascinating science of biotechnology, gene cloning and biomanufacturing

During the Stem Cells and Biotechnology program, middle schoolers learn how cells are used to biomanufacture medicines (insulin) and food (cultured meat). Participating students learn real-life research techniques, working hands-on with professional scientists in a biotech research laboratory.

### Your child will be inspired when they:

- Learn how the human insulin gene is cloned
- Isolate mouse muscle stem cells
- Grow muscle stem cells on tissue scaffolds
- Use professional lab equipment
- Perform real-life research techniques:  
**PCR, gel electrophoresis, DNA purification, spectrophotometry, ligation, microscopy, transformation, chromatography, aseptic technique, cell culture, immunocytochemistry**

The program also includes a fun bio-art project - "Painting with fluorescent bacteria"

### Course Provides:

- Hands-on labs
- Real-world experience
- Biotech exposure
- Core bioscience education
- Inquiry driven experiments
- Exciting science discussions
- Professional science mentors
- Relatable role models
- Certificate of completion
- Fun and friendships