

MOLECULAR STEM CELL BIOLOGY

Age: 15-18**Grade:** 9-12**Duration:** Five days | 9.30am-4.00pm**2024 Dates:** June 24th-28th**Location:** Torrance, California**\$1,550**

Learn to Clone Human Genes and Genetically Engineer Stem Cells Using Modern Ligation-Independent Cloning Methods

The “Molecular Stem Cell Biology” program expands on high school biology courses, to provide hands-on training in modern techniques for cloning and expressing genes in human stem cells. Participants create and express an engineered fusion protein, gaining advanced molecular biology skills that are not taught in school or college.

During this five-day course you will:

- Utilize molecular biology software to design a gene amplification, cloning and expression strategy
- Clone a gene from human stem cells using modern methods required throughout the life science industry
- Engineer your cloned gene to create a fluorescent fusion protein
- Express and observe your engineered fusion protein in live human cancer stem cells
- Explore the real-world applications of gene cloning and protein engineering in stem cell science

Course Provides:

- Hands-on classes
- Advanced lab skills
- Biology education
- Real world experience
- Biotech exposure
- Experienced science mentors
- Career education
- College preparation
- Certificate of completion
- Alumni support

Molecular Stem Cell Biology prepares students with advanced skills and knowledge for AP biology, science fair research, college lab classes and workplace internships.