Molecular Biology Laboratory

MBB 308

The exercises in this laboratory course are designed to introduce students to a variety of nucleic acid isolation and manipulation techniques that are currently used in a research environment. The main topics will include: (1) Gene manipulation - we will use mutagenesis to change the colour of a fluorescent protein from red to orange and (2) DNA/RNA extraction - we will explore the splicing of several Drosophila genes. In this course, students will perform their own experiments and develop a “toolkit” of technical expertise. One-on-one discussions with colleagues and the teaching team will also allow students to gain first-hand experience analyzing, discussing, and troubleshooting real-world scientific data.

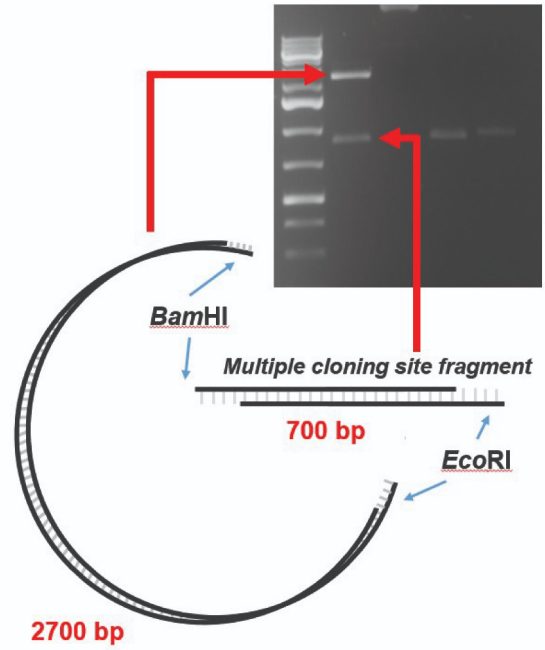
Techniques

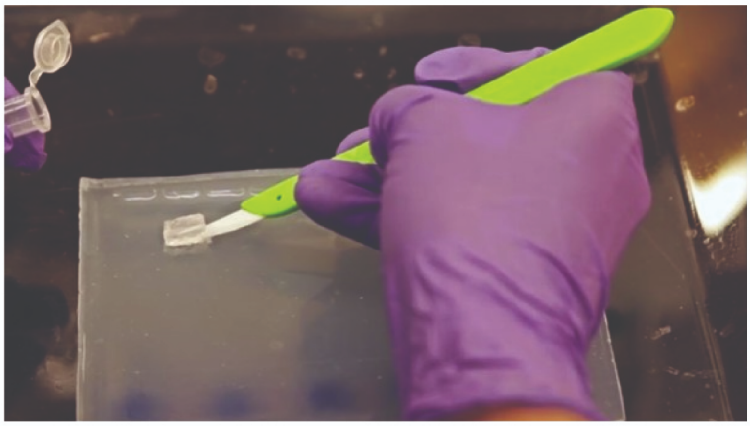
- DNA and RNA isolation
- Plasmid preparation
- Restriction enzyme digestion
- Molecular cloning
- Gel electrophoresis
- Polymerase chain reaction
- Site-directed mutagenesis
- Bacterial culture
- Sequence analysis

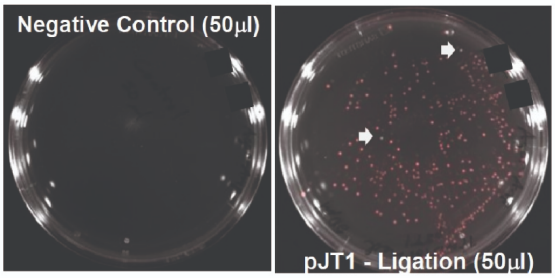
INSTRUCTOR:

Timothy Audas

Gene Manipulation







Splicing Analysis