Molecular biology laboratory



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.

TOPICS

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

INSTRUCTORS

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