

High School Science Educator Teacher Training Course



CRISPR/Cas9 Genome Editing: A Hands-on Experience

Articles Articles about genome editing using CRISPR/Cas9 appear almost daily. This course will allow teachers to learn how this technology works and apply the technique in the lab. Hands-on experience will help teachers to understand how CRISPR is used to explore questions in basic biology, its implications for human health, and gain a fundamental understanding of this new technology to bring back to the classrooms and labs in their own schools. Genome editing will be used to explore the development of the zebrafish, *Danio rerio*, a key model species in biomedical research worldwide. Teachers will manipulate genes involved in early development to understand embryogenesis and organ formation and how this research is directly connected to understanding human health and birth defects. The course will also expose teachers to modern methods in microscopy. We will also discuss the ethical implications of genome editing, an issue that is highly relevant to all members of society.

