### 2023 CAST Conference in Houston, TX

## EDVOTEK<sup>®</sup> Workshop Schedule

**THURSDAY NOVEMBER 9, 2023** 

#### THURS. 8:00-9:00 AM George R. Brown Convention Center - 350D Left at the Scene of the Crime: High School Forensics

There's a break-in at the lab. Your students become forensic scientists as they walk into a crime scene. Analyze samples for blood and then catch the criminal with DNA fingerprinting. This exciting workshop will include ways to incorporate biotechnology and gel electro-phoresis into your classroom.

#### THURS. 11:30AM-12:30 PM George R. Brown Convention Center – 350D Introducing Your Students to Gene Editing with CRISPR

The gene-editing tool CRISPR is one of the most exciting biotechnology breakthroughs of the past decade. In fact, this technique won the Nobel Prize in 2020! In this hands-on workshop, we'll explore CRISPR biology using fast, easy experiments that model the development of a cure for Cystic Fibrosis.

#### THURS. 1:00-2:00 PM George R. Brown Convention Center – 350D

#### **Sweet Science: Exploring Complex Mixtures with Biotechnology**

Explore the science of candy colors! We will extract food dyes from candy and separate them using agarose gel electrophoresis and paper chromatography. By separating the different colors, students learn about complicated mixtures, charges on molecules, and how science relates to everyday life.

#### THURS. 2:30-3:30 PM George R. Brown Convention Center - 350D Exploring the Genetics of Taste: SNP Analysis of the PTC Gene Using PCR

Explore the relationship between genotype and phenotype using phenylthiocarbamide (PTC). Some think PTC tastes bitter, while others find it tasteless. The ability to taste PTC has been linked to variations in a taste receptor gene. In this workshop, you will learn to use PCR and restriction enzymes to distinguish between PTC alleles.

#### THURS. 4:00-5:00 PM George R. Brown Convention Center - 350D ELISA Essentials: Unlocking the Power of Immunoassays

Discover the awesome potential of the ELISA! This highly-sensitive assay allows for detection of low levels of antigens in biological samples, making it perfect to identify pathogens, allergens, and more. We'll also practice pipetting to improve accuracy and precision, ensuring experimental success.

#### Visit us at Booth #609

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