

MiniOne® Systems Workshop Schedule

CASE CSEC 2023 • Palm Springs Convention Center • Room Smoketree E

Friday, October 20

8:00am - 9:30am Room Smoketree E
DNA Forensics Solves the Murder Mystery of Dr. Ward

Become a crime scene investigator & solve the murder of Dr. Ward using gel electrophoresis to perform DNA analysis in a single classroom period.

9:40am - 10:55am Room Smoketree E
Take the Mess and Stress Out of Bacterial Transformation

Experience stress-free bacterial transformation with pre-made agar trays and witness the captivating glow of fluorescent colonies in the fluorescence reader. Embrace innovation and simplicity today!

12:30pm - 2:00pm Room Smoketree E
Biotech Bootcamp: Covering Key Biotech Labs in One Week

Biotech can be a part of every student's life science adventure! Come see how you can implement a biotech bootcamp with hands-on labs to hit those critical biotech skills like pipetting, electrophoresis and even PCR, all in one week.

2:10pm - 3:25pm Room Smoketree E
Pop, Fizz! Seltzer water and ocean acidification?

In this interactive lab, students will be introduced to ocean acidification by measuring the pH of various seltzer waters. This enlightening workshop will then dive into biotechnology resources from non-profit organizations, biotech education pathway to college and much more.

Saturday, October 21

8:00am - 9:30am Room Smoketree E
Sickle Cell: Exploring Genetics with Gel Electrophoresis

Pour, load, run a gel, watch DNA separate, and analyze results to determine whether members of one family have sickle cell disease, are carriers, or are unaffected—in one class period.

10:00am - 11:15am Room Smoketree E
Whale Whodunit: Using Electrophoresis to Solve a Paternity Puzzle

Develop an understanding of gel electrophoresis & environmental science principles by helping a whale calf identify which whale is her father.

1:00pm - 2:30pm Room Smoketree E
From Foodborne Disease Investigation to Biotechnological Advancements: A Comprehensive Workshop

Bridge foodborne disease investigation & cutting-edge biotechnology. Resources for hands-on labs, citizen science research opportunities, project based learning PBL, NGSS storyline curricula, & more, are provided.

2:45pm - 4:15pm Room Smoketree E
To Taste or Not to Taste! Determine Genotype Using Electrophoresis

Help Jillian determine the "bitter" truth behind being a non-taster in a family of bitter tasters by analyzing Punnett Squares, then use electrophoresis results as evidence to support the reasoning of her pedigree.

4:30pm - 5:45pm Room Smoketree E
Taking Macromolecules to Micro!

Test for starch, glucose, protein, lipids & even DNA, without large volumes of reagents, cleaning test tubes, or boiling reagents.