

NSTA Regional Conference 2019

Free Teacher Workshops

Presented by Bio-Rad Laboratories

Step-by-Step, Hands-on Experience

Salt Lake City, UT

Calvin L. Rampton Salt
Palace Convention Center

October 24–26

Thursday | October 24

| Room 251D | Title | Description |
|--------------|---|---|
| 11 AM–12 PM | Modern Biology is Revolutionizing Human Lives! Are Your Students Prepared? | Glowing cats? Personalized medicine? Designer babies! Empower and prepare your students to think critically as modern biology revolutionizes medicine, industry, and human lives. Learn from a leader in biotechnology education how to build your bioscience lab program step-by-step with equipment, supplies, and student credentials. |
| 2–3 PM | Learn to Infuse NGSS Science/Engineering Practices with an Engaging Activity | This workshop will focus on illustrating the science and engineering practices described in the NGSS framework through the engaging pGLO Bacterial Transformation activity. |
| 3:30–4:30 PM | Think Like an Engineer in Your Biology Class | Incorporate NGSS science and engineering practices in your biology class by engaging students to define the problem of world hunger. Considering constraints, students will design a treatment plan (solution), in the form of an evidence-based argument, for protein-energy malnutrition. |

Friday | October 25

| Room 251D | Title | Description |
|---------------|--|---|
| 8–9 AM | Investigate Photosynthesis and Cellular Respiration with Algae Beads for GenBio | Use algae beads in a colorimetric assay to study photosynthesis and cellular respiration. Learn how students can observe a phenomenon, ask meaningful questions, design and carry out their own experiments to understand how these processes are connected. |
| 9:30–10:30 AM | Are Increased Incidences of Infection the Result of Climate Change? | Why does climate change matter? Find out which suspected microbes are associated with increased reports of infections and why they may be more common as the temperature on earth increases. |
| 11 AM–12 PM | The Opioid Epidemic: Exploring the Genetic Associations of Opioid Abuse | Opioid abuse is prevalent in the United States. Students take on the role of researchers as they design an experiment utilizing a fast electrophoresis protocol of pre-amplified DNA samples that predicts addiction risks for opioid abuse, treatment, and implications to precision medicine based on a patient's genotype. |
| 2–3 PM | It's in Their DNA! Teach Personalized Medicine with Students' Own DNA | Experience a hands on classroom activity where students work with their own genes and PCR in the context of personalized medicine, the wave of future disease treatment. |
| 3:30–4:30 PM | Mushroom Ecology and Why It Matters for Biofuel Production | With rising greenhouse gases, bioengineers apply observations in mushroom ecology toward finding a biofuel solution. In this hands-on workshop, use an inquiry-based approach as you extract enzymes from mushrooms and optimize reaction rates for biofuel production. |

Come visit us at **Booth #317**

Can't make a session? Don't miss out — download the FREE presentations from bio-rad.com/explorerworkshops

19-2144

BIO-RAD

Visit us on the Web at explorer.bio-rad.com
or call us at 1-800-4BIORAD (1-800-424-6723)

BIO-RAD
Explorer