

NSTA Area Conferences 2018

Free Teacher Workshops

Presented by Bio-Rad Laboratories

Step-by-Step, Hands-on Experience

National Harbor, MD

Gaylord National Resort
& Convention Center

November 15–17

Thursday | November 15

National Harbor 3	Title	Description
11 AM–12 PM	Biotechnology, the Science of Our Age. Are Your Students Prepared?	Glowing cats? Designer babies! Empower students to be independent thinkers. Learn from a leader in biotechnology teaching how to build your lab program step-by-step with equipment, supplies, and student credentials. First 25 attendees get a FREE copy of our new textbook!
2–3 PM	Fascinate Your Students with Glowing Bacteria	Make bacteria glow fluorescent green in this hands-on transformation lab. Bacterial transformation is one of the most important techniques in genetic modification and medicine production.
3:30–4:30 PM	Are Increased Incidences of Infection the Result of Climate Change?	Why does climate change matter to me? There have been increased reports of infections with symptoms such as gastroenteritis, bloody stools, fever, and dark blisters. Find out which suspected microbes are associated with this increase and why they may be more common as the average temperature on earth increases.

Friday | November 16

National Harbor 3	Title	Description
8–9 AM	Forensic DNA Fingerprinting Plus Engineering on a Budget	Crime scene DNA recovered, suspects identified, a mystery to solve — it's a job for... your students. From pieces to prototype, have your students design, build, and use working electrophoresis units to solve the crime. Learn to make an engaging DNA fingerprinting lesson both engineering-based and cheaper in this hands-on workshop.
9:30–10:30 AM	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) for protein-energy malnutrition, in the form of an evidence-based argument.
11 AM–12 PM	Become a GMO Investigator	Regardless of where you stand in the GM debate, wouldn't it be interesting to know which foods you eat are GM foods? This hands-on workshop teaches basics of DNA extraction, PCR, and electrophoresis and how they are used to test grocery store food products for the presence of GM foods.
2–3 PM	Conserving Panda Populations Through Understanding Their Reproductive Endocrinology Grades 9–16	Can your students save the Giant Pandas? See how your students can explore challenging topics such as homeostatic regulation and the effect of reproductive hormones, immunological responses, and ecosystem balance all at once as they engineer a hormone detection system that can be utilized for Giant Panda population conservation efforts.
3:30–4:30 PM	Algae Blooms: Agriculture, Ecology, and Economy	Teach photosynthesis and cellular respiration together in the context of the dead zone in the Gulf of Mexico. Using algae beads together with an algae bloom case study, your students can engage in authentic inquiry investigations to learn about two connected processes and their ecological and economical implications.

Come visit us at **Booth #217**

18-2202

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