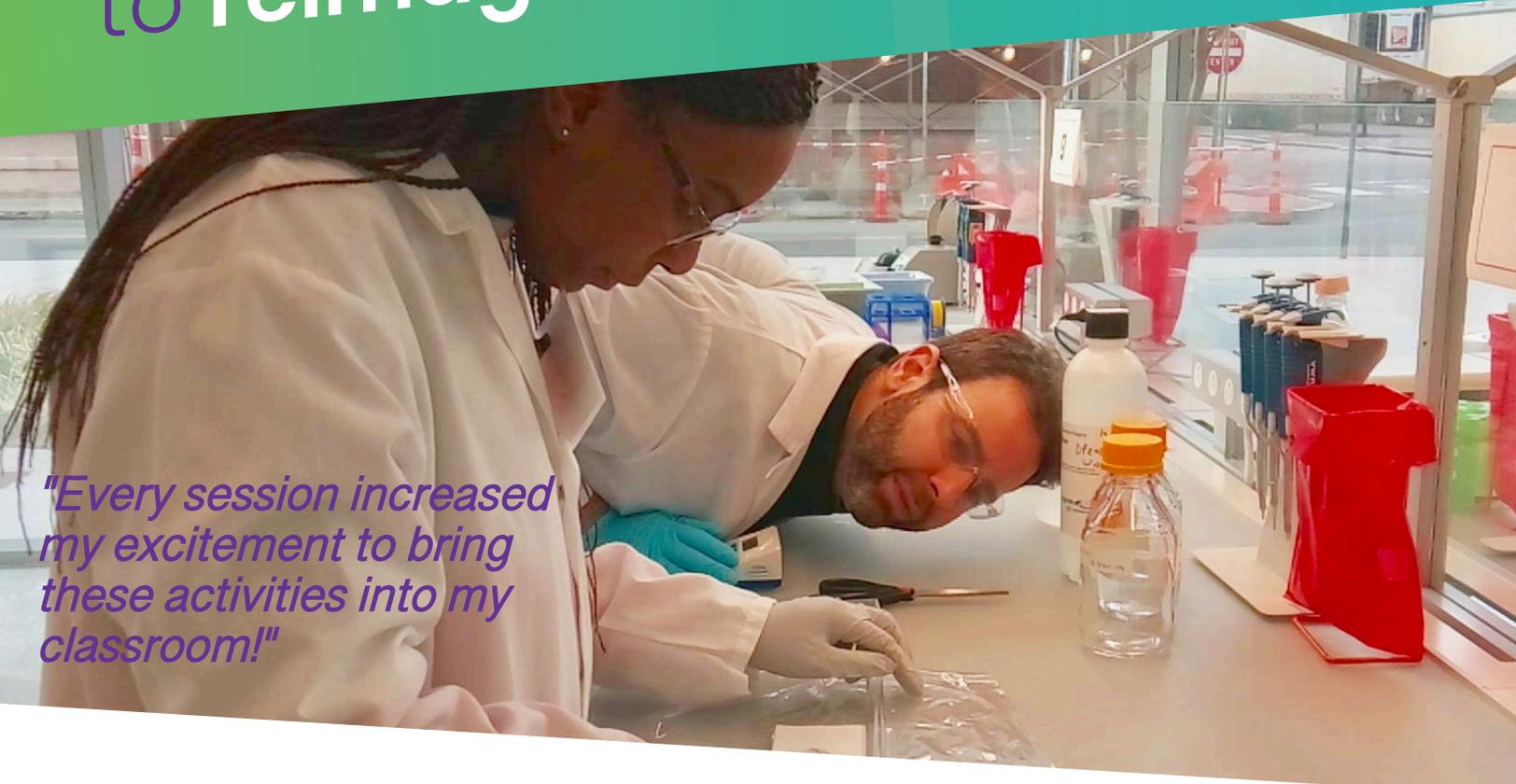


Seeking high school science teachers who want to reimagine biology class

A photograph showing two scientists in a laboratory setting. They are wearing white lab coats and safety glasses. One scientist is leaning over a workbench, and the other is looking on. The workbench has various lab equipment, including bottles and pipettes.

"Every session increased my excitement to bring these activities into my classroom!"

Reboot your lab activities with new curricula in gene editing and microbiomics!

Please join the Acera Life Sciences Change Agent Teacher Workshop Series for a **FREE** 2, 3, or 5-day program based on NGSS-aligned curricula. Participating teachers will learn about new and relevant technologies, how scientists actually conduct lab research and work iteratively, and how to translate these innovations into labs and lessons plans that offer inspiration and a sense of purpose to students.

Sessions will include hands-on lab experiences and access to pilot-tested curricula in gene editing (using CRISPR technology) and microbiomics. These areas are two of the leading trends in biotechnology, allowing teachers and students to connect their classroom lab activities to innovations and research happening in the world today.

Sessions will be held 8:30-3:00 during the weeks of June 17 or 24.
Teachers can enroll in one or both sessions.
Register online at aceraschool.org/reinventbiology


The Massachusetts School of
Science, Creativity and Leadership

aceraschool.org

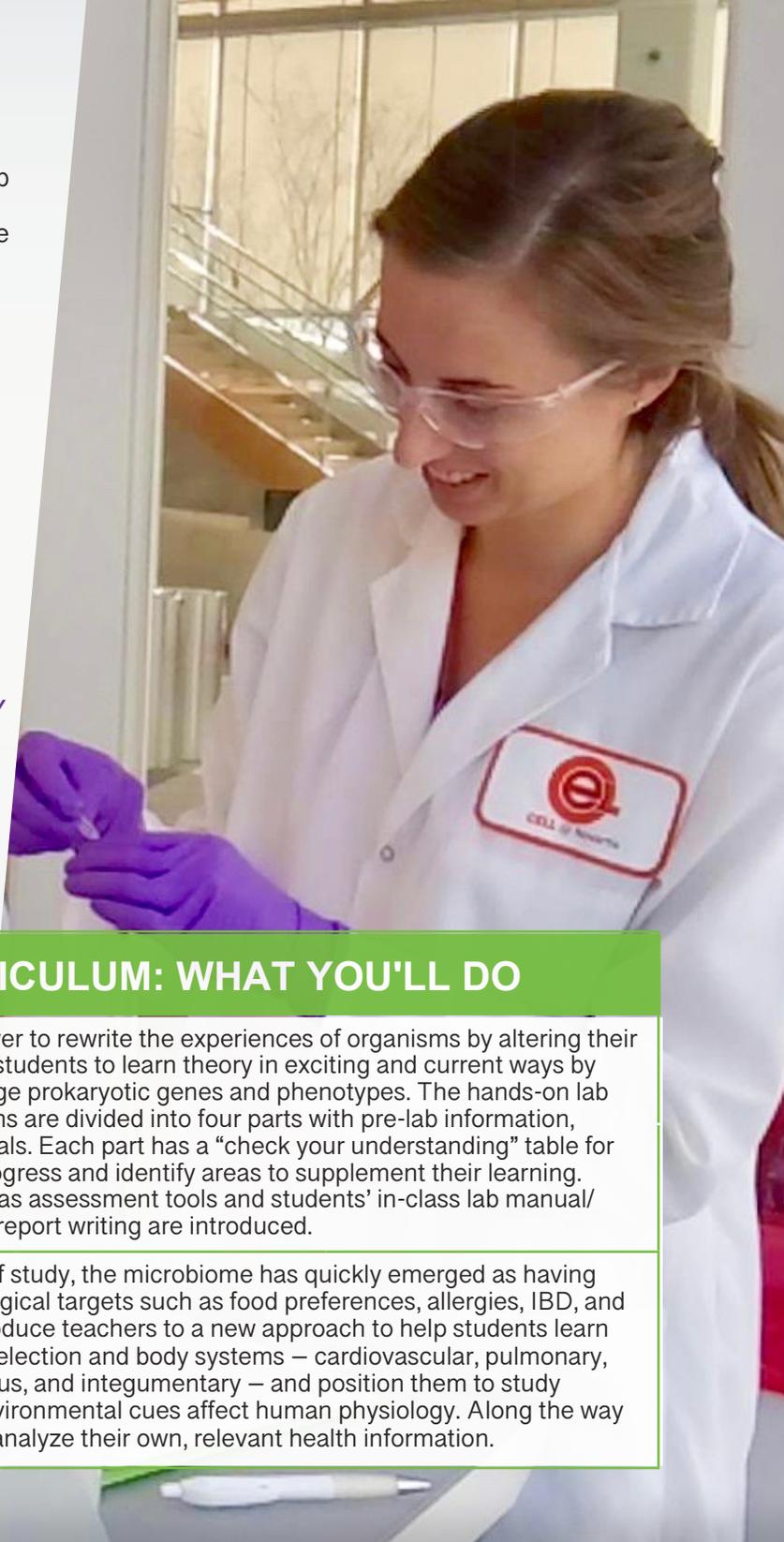
Why participate?

- Gain new knowledge and skills in scientific fields, lab practices, and inquiry-based learning techniques
- Receive NGSS-aligned curriculum outlines resource materials for use in the classroom and lab
- Support (virtual office hours) and access to online learning community
- Links/introductions to resources and ordering instructions for lab materials
- Network with similarly-minded educators
- Earn Professional Development Points

Location: Acera School

5 Lowell Ave. Winchester, Mass.

"Anytime students get to do more advanced lab techniques they are very motivated to learn. This is especially true for CRISPR, which is so prominent in the news right now."



CURRICULUM: WHAT YOU'LL DO

Gene editing with CRISPR:
8:30am-3:00pm
June 17-19 or
June 24-26

Gene editing has the power to rewrite the experiences of organisms by altering their DNA. This unit will allow students to learn theory in exciting and current ways by utilizing CRISPR to change prokaryotic genes and phenotypes. The hands-on lab and associated discussions are divided into four parts with pre-lab information, readings, and learning goals. Each part has a “check your understanding” table for students to track their progress and identify areas to supplement their learning. Novel uses of lab reports as assessment tools and students’ in-class lab manual/notebook to facilitate lab report writing are introduced.

The Human Microbiome:
8:30am-3:00pm
June 20-21 or
June 27-28

A relatively recent area of study, the microbiome has quickly emerged as having important ties to physiological targets such as food preferences, allergies, IBD, and autism. This unit will introduce teachers to a new approach to help students learn about evolution/natural selection and body systems – cardiovascular, pulmonary, digestive, immune, nervous, and integumentary – and position them to study ecology and the ways environmental cues affect human physiology. Along the way students will collect and analyze their own, relevant health information.



Acera’s Education Innovation Initiative seeks to transform STEM education to develop the next generation of scientists, innovators, and leaders. Acera’s lab school in Winchester, Mass is a place to create and pilot inquiry-based STEM content that taps into students’ intrinsic motivation to learn, serving as a microcosm of what’s possible for all schools.

For more information on partnering with Acera, contact Joshua Schuler at joshua@aceraschool.org.