

AMGEN Biotech Experience

Scientific Discovery for the Classroom



Exploring Precision Medicine

STUDENT GUIDE

2026 Pilot

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OVERVIEW

Welcome to the Amgen Biotech Experience module *Exploring Precision Medicine*! You are probably already familiar with how your genes affect your visible traits, such as your hair color and eye color, and you may have studied the heritability of disease. In this module, you will have a chance to explore how understanding genetics can help to personalize the medical treatments that we receive—which is the definition of *precision medicine*. It's an approach to the prevention and treatment of disease that considers variability in genes, environment, and lifestyle. Throughout this module, you will:

- Review medical cases to learn how precision medicine works
- Explore how and why your DNA makes your sense of taste different from your peers
- Investigate how we know which genes control which traits
- Complete a laboratory experiment to extract your own DNA
- Explore your ability to taste a particular flavor via genetic sequence analysis and gel electrophoresis of polymerase chain reaction (PCR) products