

# Scientific Discovery for the Classroom

## Amgen Biotech Experience

“I wouldn’t have known about this field, how stimulating and enjoyable it is, without having sampled the life of a scientist through the biotech labs used by the Amgen Biotech Experience.”

– Audrey Izuhara, Research Technician and Former ABE Student

“We constantly have former students come back to tell us that they chose to major in science, biotech or related fields because of this experience.”

– Jim Mauch, High School Science Teacher

“Not only did these labs help me discover my passion for molecular biology and medicine, but early exposure to molecular biology techniques opened the doors to multiple research opportunities.”

– David Adler, Medical Student and Former ABE Student

“This program has been nothing but a positive experience for me. It gave me an opportunity to grow professionally. I am very fortunate to be able to share this with my students who absolutely enjoy every minute of it.”

– Darshana Shah, Middle School Science Teacher



The Amgen Biotech Experience is an innovative educational program that transforms classrooms in middle and high schools by introducing students to the excitement of real-world science. The program integrates a hands-on, inquiry-based molecular biology curriculum that explores the steps involved in creating biotechnology medicines.

In addition to comprehensive professional development for teachers, the program provides state-of-the-art materials and resources that enable teachers to implement the curriculum in their classrooms. Each year, over 50,000 students and hundreds of teachers have the opportunity to participate in this authentic laboratory experience.

### THE HYPOTHESIS IS SIMPLE

Bringing engaging, relevant, hands-on biotechnology labs into middle and high schools will cause a chain reaction—inspiring and empowering science teachers, who will in turn motivate students to become scientifically literate, pursue science in their future studies, and for some, become the researchers and innovators of tomorrow.

### THE PROGRAM IS FREE

The Amgen Foundation supports the program, which includes free professional development workshops where interested science teachers learn contemporary theory and lab techniques in order to conduct advanced labs in their own classrooms. All curriculum and supplies, as well as a loan of research-grade lab equipment, are provided at no charge to participating schools.



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### THE PROCESS IS EXHILARATING

With cuts to education budgets, the opportunity to participate in meaningful science experiments before college is becoming increasingly rare. Utilizing Nobel Prize-winning discoveries to prepare a recombinant DNA molecule which carries a gene for red fluorescent protein, Amgen Biotech Experience students follow many of the steps biotechnology researchers use to produce medicines.

### THE RESULTS ARE STRONG

In a recent independent evaluation of more than 1,000 high school students, program participants showed significant gains in all categories relating to science: attitude, interest, confidence and knowledge, as well as interest in pursuing science as a career. Students from groups underrepresented in science,

students in introductory biology classes, and students who will be the first in their families to attend college showed the most significant gains.

### THE COMMITMENT IS REAL

The Amgen Foundation has committed nearly \$8 million toward this program, making this opportunity possible to over 300,000 students to date across communities in California, Colorado, Massachusetts, Puerto Rico, Rhode Island, Washington, Washington DC, and overseas in the UK.

Teachers and schools in these regions who are interested in participating in the Amgen Biotech Experience are encouraged to visit [www.amgenbiotechexperience.com](http://www.amgenbiotechexperience.com) for more information, including contact details for the site nearest them.

This program was introduced in 1990 by educators and Amgen scientists including Bruce Wallace, a molecular biologist who was one of Amgen's first staff members. It was his hope that every student, regardless of the profession they eventually pursued, would have the opportunity to experience the joy of discovery and the excitement of having science at his or her fingertips. Today, the program reaches tens of thousands of students every year.

The Amgen Foundation seeks to advance science education; improve patient access to quality care; and strengthen the communities where Amgen staff members live and work. To date, the Foundation has donated over \$200 million to nonprofit organizations across the United States, Puerto Rico, and Europe that impact society in inspiring and innovative ways and those that provide disaster relief efforts both domestically and internationally. To learn more about the Amgen Foundation, visit the Corporate Giving section of [www.amgen.com](http://www.amgen.com) and follow us [www.twitter.com/amgenfoundation](https://twitter.com/amgenfoundation).

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