

## In Memorium: Bruce Wallace



Above: As one of Amgen's first staff members, Bruce Wallace located the space for what would become Building 1 in Thousand Oaks. Recognizing the need for more in-depth molecular biology and biotechnology training, he helped found The Amgen-Bruce

Wallace Biotechnology Lab Program at Pierce College in Woodland Hills, California. The workshops have provided hands-on activities and theory exploration for more than six hundred teachers and one hundred thousand students since it began in 1990.

*Bruce Wallace, one of Amgen's first staff members, tragically died in a paragliding accident on September 20, 2002, in the Sierra Nevada Mountains, just eight months after retiring from Amgen. With sparkling eyes and inexhaustible energy, Bruce is remembered for his wit, passion, and loyalty to his friends and colleagues, and his love for his wife and four children.*

In 1980, Bruce Wallace was a thirty-two-year-old post-doctoral student in Winston Salser's lab at the University of California, Los Angeles. Salser, Amgen's founding scientist, asked Wallace to find space for a new start-up called Applied Molecular Genetics.

It was important to be close to the University of California campuses at Los Angeles and Santa Barbara as well as the California Institute of Technology for interchange. Yet Bruce thought outside the box and considered Newbury Park. While it wasn't near any university, the homes were affordable.

Wallace also wanted a location away from the smog, with a low cost of living, excellent schools, and room for expansion. That spring, he took out a lease for three thousand square feet of office space in what is now Building 1 on the Amgen campus. There was no furniture when he and the architect began designing the interiors, so they sat on the floor and mapped out offices, a dish room, a cold room, and several lab spaces.

For twenty-two years Wallace worked as Amgen's jack-of-all-trades, in the beginning helping with nuts-and-bolts operations such as recruiting, human resources, facilities, and purchasing. Just before

THIS AGREEMENT entered into this 11th day of September, 1980, by and between Bruce Wallace ("Wallace") and AMGEN, a California corporation (the "Company" or "AMGEN").

The parties hereby agree as follows:

1. The Company hereby agrees to employ Wallace, who hereby agrees to serve, as Technical Director of the Company commencing on the date and subject to other terms and conditions as follows:

(a) Such employment of Wallace shall commence promptly after such date as the Company is able to raise from third parties the substantial funds (in the multiple millions of dollars ("full funding")) required to achieve its objectives. The Secretary of the Company shall notify Wallace in writing, in the event the Company achieves such full funding, as to the date of commencement of his employment.

(b) Wallace shall be paid the total compensation of \$ \_\_\_\_\_ per month (including the Company's cost for any fringe benefits actually made available to Wallace while so employed but not including F.I.C.A. or other amounts designated by law as paid by employer), payable in monthly or semi-monthly intervals.

(c) While so employed Wallace will devote his full time (40 hours per week) to the business and affairs of the

Above: A 1980 employment agreement with Bruce Wallace



## Features

By LINDA COOPER  
News Chronicle

**N**EWBURY PARK — "Biology is no longer the science of cutting up frogs and worms and looking at mice," said Bruce Wallace, a facilities planning and safety manager at Amgen.

That is especially true for science students in the Conejo Valley, Las Virgenes, Oak Park and Moorpark school districts,

who will get a chance to work with DNA and gene cloning, thanks to Amgen.

A grant from Amgen to the Conejo Valley Unified School District is enabling Newbury Park High School biology teacher Hugh Nelson to spend this school year working with Wallace and developing a genetic engineering program. Nelson will then help teachers present the program to their students.

"That's a pretty nice cooperative program," Conejo Valley

Unified School District Superintendent William Seaver said. The genetic engineering program is part of a three-part project for Amgen, which also includes the teacher intern program and a lecture series. Amgen put together a lab for the classroom projects, at a cost of about \$10,000, Wallace said.

The lab is simple enough that it can be done without complications and if there are problems, Amgen researchers will be just a phone call away,

Nelson said.

The lab does not involve human genes or germs. It parallels what genetic engineering labs are doing across the country, Nelson said.

In the plasmid fusion lab students will take plasmid, which is a piece of DNA, from bacteria and use enzymes to cut the DNA, then put it back together in different pieces so they get a new organism, he said.

"I am extremely excited. It's a

**'We're a company that's built on education and as individuals we value education because of it. We are where we are through education. Educated people make better choices.'**

— Bruce Wallace

chance of a lifetime for me," said an enthusiastic Nelson. Nelson was chosen after he participated in a teacher intern program at Amgen in 1988. He was selected because he helped develop ways to move the experiments into the classroom, Wallace said.

"He was in the right place at the right time and showed a lot of interest in the development," he said.

Nelson has been teaching for 20 years, 18 of those at Newbury Park High School. He holds a master's degree in biology from Harvard University and a bachelor's degree in botany from the University of Michigan.

"This is really quite rare," Wallace said of the school project. Only a small portion of schools in the nation, about one in 1,000, have genetic engineering programs, he estimated.

In California, the local school districts will be the only ones south of Santa Cruz to have such a program, Nelson said.

The teachers are all very excited about the program, he said.

"I think they're enthused that someone is making an effort to make their job easier as well as more up to date," Nelson said.

He is worried, though, that apathetic students might not appreciate it.

"They are not very excited by school so it is hard to generate enough enthusiasm to show them that this is new and different, he said.

Still, the bright kids know that they're being treated to something real special," Nelson noted.

They are aware of DNA, but after they participate in the lab they'll be able to say "I touched it and I held it in my hand," he said.

Amgen is working with the schools because most of its staff members are highly educated and some are former educators, Wallace said.

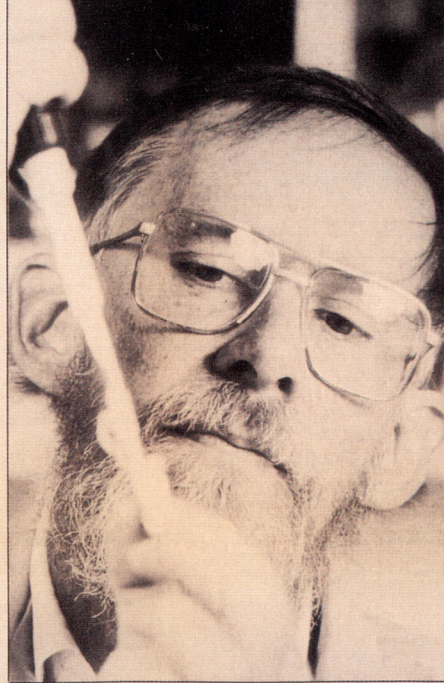
"We're a company that's built on education and as individuals we value education because of it," he said, adding that about a quarter of the staff have doctorates.

"We are where we are through education," Wallace said.

"Educated people make better choices. They make greater contributions and this country needs that," he said.


# Reading, Writing and Genetic Engineering

Biotechnology headed for Conejo area high school classrooms under Amgen program



HOLLY McFARLAND/News Chronicle  
Newbury Park High School biology teacher Hugh Nelson will spend this year working with Amgen to develop a genetic engineering program which he will help other teachers present to their students.

his retirement, he headed up Amgen's office of environmental health and safety. He also initiated a local high school education series now named "The Amgen-Bruce Wallace Biotechnology Lab Program."

"He cared about people, community, education, and learning, and had a profound passion for life," remembers Scott Trousdale, senior manager of environmental health and safety and a colleague and friend of Wallace's. "But more than anything else, his wife and family were his prized possessions. All in all, Bruce was just the most wonderful, fun, interesting, and unpretentious person I've ever been around." 



*Above left: An October 1990 Thousand Oaks News Chronicle article on the program started by Wallace Top: Teachers Hugh Nelson and Marty Ikkanda help administer the Biotech Lab. Middle: Wallace and Gordon Binder at a company function in 2000*

*Above: Amgen's environmental health & safety group gathers 'round the Christmas tree in 1992. Clockwise from bottom left: Marcia Brandt, Scott Trousdale, Ted Quiroz, Bruce Wallace, Ken Backer, Susan Baros, Sommer Dean, Regina Pacheco, and Shirley O'Donnell*

*"Bruce knew our society needed to produce top-quality scientists if Amgen was going to be successful. He felt strongly that science deserved more emphasis in the educational system, so he established a 'lab kit' program in cooperation with our scientists and local high schools. He was passionate about doing the right thing."*

— Susan Baros, environmental health and safety, hired in 1992