

Fred Kavli

Founder, Kavli Foundation, Santa Barbara, Calif.

This technology entrepreneur and philanthropist has dedicated millions to help inspire revolutions in astrophysics, nanoscience and brain research

Fred Kavli has always followed the road less traveled. The Norwegian engineer came to the U.S. in 1956, shortly after earning a degree in engineering physics from the Norwegian Institute of Technology. Two years later he launched his own company, Kavlico Corporation, which, on the basis of his designs, patents and leadership, grew into one of the world's largest manufacturers of sensors for the aeronautics and automotive industries.

"I could not, as a foreigner just three years out of college, have started my own business in any other country than the United States," he has said. "For this I will be forever grateful." He made his gratitude tangible in 2000 when he sold his company and established the Kavli Foundation, whose current assets total \$99.5 million. Instead of funding research directed at near-term payoffs, as most major funders do, he is supporting nondirected basic research aimed at eventually improving the quality of life for people around the world. The support comes at a crucial time, as federal money for fundamental science is drying up. But it is his willingness to let researchers follow their own dreams that sets him apart [see "He'll Pay for That," by Sally Lehrman; Insights, SCIENTIFIC AMERICAN, July 2005].

The foundation has funded basic science research institutes at 10 universities. It got under way in 2001 by contributing \$7.5 million to a center for theoretical physics at the University of California, Santa Barbara, and the same amount to an institute for particle astrophysics and cosmology at Stanford University. Funded institutions now also include centers for neuroscience at Columbia and Yale universities and U.C. San Diego; nanoscience at the California Institute of Technology, Cornell University and the Delft University of Technology in the Netherlands; and astrophysics and cosmology at the University of Chicago and the Massachusetts Institute of Technology.

Kavli chooses senior scientists through a network of contacts, negotiates the support of their institutions, and then creates research centers or expands those already in place. In 2004 three of the eight science Nobel Prizes went to researchers affiliated with his institutes.

In addition to the foundation, he started the Kavli Oper-



A sensor-manufacturing company generated a fortune for Norwegian-born Fred Kavli. From those earnings, Kavli decided to show his gratitude for the opportunities afforded by the U.S., his adoptive country.

ating Institute in Santa Barbara, which conducts its own research, holds symposia and engages in public education. He recently set out a plan to offer three \$1-million awards, biannually, in astrophysics, nanoscience and neuroscience. These prizes, which would be given out in Norway beginning in 2008, would compete with the Nobels in building public awareness and appreciation for science.

In announcing the prizes not far from where he was born 77 years ago, Kavli explained to the audience: "I used to ski across the vast white expanses of a quiet and lonely mountaintop. At times, the heavens would be aflame with the northern lights, shifting and dancing across the sky and down to the white-clad peaks. In the stillness and solitude ... I pondered the mysteries of the universe, the planet, nature, and of man. I'm still pondering."

To make a measurable impact on science, Kavli decided to focus on the three areas that continue to intrigue him. "I don't think we'll ever know so much about these subjects that we will run out of questions." —Michelle Press