PROFILE

Fred Kavli

Fred Kavli is a visionary philanthropist who began selling wood briquettes in wartime Norway and is now investing his fortune in keeping blue-sky research alive.

Fred Kavli is living his boyhood dream. "Ever since I was in high school, I've wanted to do something in life that would have a long-range impact on humanity, and today, I feel that I have that opportunity," says the 80-year-old retired physicist, inventor and entrepreneur. Through his eponymous foundation, and with input from a large network of advisors, Kavli has awarded close to \$125 million so far to fund basic research in nanotechnology, astrophysics and neuroscience through endowed university chairs and university-based research institutes. That money funds 15 Kavli Institutes in the United States, the United Kingdom, China, The Netherlands and Norway and six Kavli Professorships. In addition, The Kavli Foundation supports two seminar series that explore the future of science and the recently announced \$1 million Kavli Prizes, awarded by the Norwegian Academy of Science and Letters for outstanding achievement in nanotechnology, astrophysics and neuroscience.

In the grand scheme of things, \$100 million may seem like little more than a rounding error compared to sums given out by philanthropic behemoths such as the Howard Hughes Medical Institute and the Bill and Melinda Gates Foundation, not to mention national R&D budgets. But those who make their living off research grants say that the Kavli Foundation's impact is greater than one might expect. "The \$50,000 that I received from the Kavli Foundation may seem small, but the fact that we could use it to do very speculative research, the kind that the NSF [National Science Foundation] and the NIH [National Institutes of Health] aren't funding much these days, is incredibly valuable," says Fraser Stoddart, a chemist who until recently held the Kavli Chair in Nanosystems Science at the University of California, Los Angeles.

David Weitz, a physicist and codirector of the Kavli Institute for Bionano Science and Technology at Harvard University in Cambridge, Massachusetts, agrees with that sentiment. "These funds are letting us do the really speculative work that would otherwise fall between the cracks. But what people forget is that it's the results from this kind of research that drives the field forward and, not coincidentally, will allow us to secure more traditional funding down the road. I just wish there were more philanthropists like Fred who could see the value of basic research and support that research."

Though Stoddart no longer benefits from Kavli's largesse—he left UCLA for Northwestern University in January 2008—he is a strong believer in what his former benefactor is trying to accomplish. "His unique expression of scientific philanthropy in true exploratory research is refreshing, and it's going to make a difference in the fields he's chosen to support," says Stoddart. "He absolutely deserves all the plaudits coming his way."

Plaudits motivate Kavli to some extent, but understanding the world around him has long been his main motivator. Born and raised on a farm in Norway, Kavli remembers watching the northern lights with his brother and marveling at the mysteries of nature. That sense of wonder drove him to pursue his degree in physics at the Norwegian Institute of Technology, financed by money he and his brother made selling wood chips to fuel the cars prevalent in Nordic countries during World War II. Later, after moving first to Canada and then to the United States, that entrepreneurial bent led Kavli in 1958 to found Kavlico Corporation, which became a leader in supplying sensors for aeronautic and automotive applications. Kavli remained the sole shareholder of the company until he sold it in 2000 for a reported \$345 million. Then, he says, is when the fun began. "Building a company and becoming rich is not really that satisfying," he says. "Doing something with that money that benefits humanity, that's what I think is valuable and enjoyable."

For Kavli, giving back to society means funding basic research, which he believes holds the answers to many of the world's major problems. "Without fundamental science, the future is dim," says Kavli. "Of course, fundamental science proceeds at its own pace, with no guarantees of what that research will produce, and governments these days seem reluctant to fund something that open-ended."

Kavli and a staff of four make up the foundation, reflecting his businessman's approach to philanthropy. "Right from the start, I wanted to keep our operations lean so that more money could go where it would do the most good. Of course, with a small staff, it means that I get to be very involved, which in itself is a big positive for me," says Kavli. And what does Kavli get for his efforts, aside from the satisfaction of helping humanity? "I ask the institutions to invite me to seminars now and then," he says with obvious pleasure.

With somewhere in the vicinity of \$600 million to dole out—he was also a successful investor in southern California real estate—Kavli hopes

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to catalyze a renaissance in fundamental science, at least in the three areas that he personally finds most fascinating. "The three areas I picked, neuroscience, astrophysics and nanoscience, are quite different, but I think that the future of science lies in those areas," says Kavli. "What that future holds, I have no idea, but this is a very exciting time in those fields and I wish I could live long enough to see what comes of all this research."

Though not the only modern entrepreneur turned scientific philanthropist—Microsoft founder Bill Gates, AOL founder Steve Case, Canada's Michael Lazaridis, founder of Blackberry and creator of Research in Motion, and Britain's Peter Ogden, founder of Computacenter, are a members of this small fraternity—Kavli hopes that the growing number of 40- and 50-year-olds who have made millions in the biotech and information technology booms will begin funneling some of their riches to support the very endeavors that made their wealth possible. "The world has so many problems that science can help address, but governments either aren't willing or lack the resources to put the necessary funds into scientific research, so it's going to be up to philanthropy to step in," he says.

Harvard's Weitz agrees. "There is going to be a change in the way science is funded in the US and Europe, and Fred's focused approach to funding science is going to be an important model going forward. I hope others follow his lead."

Joe Alper, Louisville, Colorado