

FAITH [★]IN SCIENCE [★]

The Templeton Foundation claims to be a friend of science. So why does it make so many researchers uneasy?

BY M. MITCHELL WALDROP

At the headquarters of the John Templeton Foundation, a dozen kilometres outside Philadelphia, Pennsylvania, the late billionaire seems to watch over everything. John Templeton's larger-than-life bust stands at one end of the main conference room. His life-sized portrait smiles down from a side wall. His face peers out of framed snapshots propped on bookshelves throughout the many offices.

It seems fitting that Templeton is keeping an eye on the foundation that he created in 1987, and that consumed so much of his time and energy. With a current endowment estimated at US\$2.1 billion, the organization continues to pursue Templeton's goal of building bridges between science and religion. Each year, it doles out some \$70 million in grants, more than \$40 million of which goes to research in fields such as cosmology, evolutionary biology and psychology.

As generous as the foundation's support is, however, many scientists find it troubling — and some see it as a threat. Jerry Coyne, an evolutionary biologist at the University of Chicago, Illinois, calls the foundation “sneakier than the creationists”. Through its grants to researchers, Coyne alleges, the foundation is trying to insinuate religious values into science. “It claims to be on the side of science, but wants to make faith a virtue,” he says.

But other researchers, both with and without Templeton grants, say that they find the foundation remarkably open and non-dogmatic. “The Templeton Foundation has never in my experience pressured, suggested or hinted at any kind of ideological slant,” says Michael Shermer, editor of *Skeptic*, a magazine that debunks pseudoscience, who was hired by the foundation to edit an essay series entitled ‘Does science make belief in God obsolete?’

The debate highlights some of the challenges facing the Templeton Foundation after the death of its founder in July 2008, at the age of 95. With the help of a \$528-million bequest from Templeton, the foundation has been radically reframing its research programme. As part of that effort, it is reducing its emphasis on religion to make its programmes more palatable to the broader scientific community. ▶

Anthony Aguirre, an astrophysicist at the University of California, Santa Cruz, and Max Tegmark, a cosmologist at the Massachusetts Institute of Technology in Cambridge.

THE DESIGN DEBATE

But external peer review hasn't always kept the foundation out of trouble. In the 1990s, for example, Templeton-funded organizations gave book-writing grants to Guillermo Gonzalez, an astrophysicist now at Grove City College in Pennsylvania, and William Dembski, a philosopher now at the Southwestern Baptist Theological Seminary in Fort Worth, Texas. After obtaining the grants, both later joined the Discovery Institute — a think-tank based in Seattle, Washington, that promotes intelligent design. Other Templeton grants supported a number of college courses in which intelligent design was discussed. Then, in 1999, the foundation funded a conference at Concordia University in Mequon, Wisconsin, in which intelligent-design proponents confronted critics.

Those awards became a major embarrassment in late 2005, during a highly publicized court fight over the teaching of intelligent design in schools in Dover, Pennsylvania. A number of media accounts of the intelligent design movement described the Templeton Foundation as a major supporter — a charge that Charles Harper, then senior vice-president, was at pains to deny.

Some foundation officials were initially intrigued by intelligent design, Harper told *The New York Times*. But disillusionment set in — and Templeton funding stopped — when it became clear that the theory was part of a political movement from the Christian right wing, not science. Today, the foundation website explicitly warns intelligent-design researchers not to bother submitting proposals: they will not be considered.

The foundation's critics are unimpressed. Awowedly antireligious scientists such as Coyne and Krotto see the intelligent-design imbroglio as a symptom of their fundamental complaint that religion and science should not mix at all.

"Religion is based on dogma and belief, whereas science is based on doubt and questioning," says Coyne, echoing an argument made by many others. "In religion, faith is a virtue. In science, faith is a vice." The purpose of the Templeton Foundation is to break down that wall, he says — to reconcile the irreconcilable and give religion scholarly legitimacy.

Foundation officials insist that this is backwards: questioning is their reason for being. Religious dogma is what they are fighting.

That does seem to be the experience of many scientists who have taken Templeton money. During the launch of FQXI, says Aguirre, "Max and I were very suspicious at first. So we said, 'We'll try this out, and the minute something smells, we'll cut and run.' It never happened. The grants we've given have not been connected with religion in any way, and they seem perfectly happy about that."

John Cacioppo, a psychologist at the University of Chicago, also had concerns when he started a Templeton-funded project in 2007. He had

just published a paper with survey data showing that religious affiliation had a negative correlation with health among African-Americans — the opposite of what he assumed the foundation wanted to hear. He was bracing for a protest when someone told him to look at the foundation's website. They had displayed his finding on the front page. "That made me relax a bit," says Cacioppo.

Yet, even scientists who give the foundation high marks for openness often find it hard to shake their unease. Sean Carroll, a physicist at the California Institute of Technology in Pasadena, is willing to participate in Templeton-funded events — but worries about the foundation's emphasis on research into 'spiritual' matters. "The act of doing science means that you accept a purely material explanation of the Universe, that no spiritual dimension is required," he says.

TEMPLETON WORRIED THAT THE WORD 'RELIGION' WAS ALIENATING TOO MANY GOOD SCIENTISTS.

It hasn't helped that Jack Templeton is much more politically and religiously conservative than his father was. The foundation shows no obvious rightwards trend in its grant-giving and other activities since John Templeton's death — and it is barred from supporting political activities by its legal status as a not-for-profit corporation. Still, many scientists

find it hard to trust an organization whose president has used his personal fortune to support right-leaning candidates and causes such as the 2008 ballot initiative that outlawed gay marriage in California.

Scientists' discomfort with the foundation is probably inevitable in the current political climate, says Scott Atran, an anthropologist at the University of Michigan in Ann Arbor. The past 30 years have seen the growing power of the Christian religious right in the United States, the rise of radical Islam around the world, and religiously motivated terrorist attacks such as those in the United States on 11 September 2001.

Given all that, says Atran, many scientists find it almost impossible to think of religion as anything but fundamentalism at war with reason. They have a reflexive reaction against the idea, espoused by Templeton, that progress in spirituality can help to solve the problems of the world.

THE BIG QUESTIONS

Towards the end of Templeton's life, says Marsh, he became increasingly concerned that this reaction was getting in the way of the foundation's mission: that the word 'religion' was alienating too many good scientists. This prompted a rethink of the foundation's research programme — a change most clearly seen in the organization's new website, launched last June. Gone were old programme names such as 'science and religion' — or almost any mention of religion at all (See "Templeton priorities: then and now"). Instead, the foundation has embraced the theme of 'science and the big questions' — an open-ended list that includes topics such as 'Does the Universe have a purpose?'

Under this umbrella come new programmes in such areas as mathematical and physical sciences, life sciences, and philosophy and theology — each, for the first time, with its own team of programme officers. The peer-review and grant-making system has also been revamped: whereas in the past the foundation ran an informal mix of projects generated by Templeton and outside grant seekers, the system is now organized around an annual list of explicit funding priorities.

It remains to be seen how reassuring these changes will be for scientists still sceptical of the foundation — although Marsh notes that last year's inaugural announcement of 13 funding priorities drew some 2,500 submissions.

The foundation is still a work in progress, says Jack Templeton — and it always will be. "My father believed," he says, "we were all called to be part of an ongoing creative process. He was always trying to make people think differently.

"And he always said, 'If you're still doing today what you tried to do two years ago, then you're not making progress.'" ■

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TOP TEN GRANTS FROM THE TEMPLETON FOUNDATION

Foundational Questions in Evolutionary Biology	\$10,500,000
Foundational Questions in Physics and Cosmology	\$8,812,078
The SEVEN Fund: Enterprise Based Solutions to Poverty	\$8,742,911
Establishing an Institute for Research on Unlimited Love	\$8,210,000
The Purpose Prize for Social Innovators Over the Age of 60	\$8,148,322
Templeton-Cambridge Journalism Fellowships and Seminars in Science and Religion	\$6,187,971
Accelerating Progress at the Interface of Positive Psychology and Neuroscience	\$5,816,793
AAAS Dialogue on Science, Ethics, and Religion	\$5,351,707
Promoting a Culture of Generosity, Part I: Feature Film	\$5,000,000
Promoting a Culture of Generosity, Part II: The Philanthropy Channel	\$5,000,000