

TEMPLETON REPORT

NEWS FROM THE JOHN TEMPLETON FOUNDATION

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Evolution at the Vatican

In the Catholic world, all roads still lead to Rome, particularly when it comes to the vexed relationship between science and faith. In 2003, the Pontifical Council for Culture, with major grant support from the Templeton Foundation, began a project at the Vatican called Science, Theology, and the Ontological Quest (STOQ). As a result, six of the pontifical universities in Rome, where most Cardinals and other Church leaders receive training, have incorporated more science into their curricula and have initiated extensive dialogues on how Catholic theology should approach modern science. Courses have been designed on such topics as evolution, the philosophy of quantum mechanics, technology, and medicine.

The most notable recent instance of these activities was a five-day conference held last month in Rome under the auspices of STOQ and the Pontifical Gregorian University. “Biological Evolution: Facts and Theories” drew some 200 attendees from around the world. Speakers included such prominent figures in the field of evolutionary biology as Francisco Ayala (University of California, Irvine), Simon Conway Morris (Cambridge University), Jeffrey Feder (University of Notre Dame), Douglas Futuyma (Stony Brook University), Scott Gilbert (Swarthmore College), Stuart Kauffman (University of Calgary), Lynn Margulis (University of Massachusetts, Amherst), and David Sloan Wilson (Binghamton University), as well as the historians of science Ronald Numbers (University of Wisconsin, Madison) and Philip Sloan (University of Notre Dame), philosopher David Depew (University of Iowa), theologian Robert Russell (Center for Theology and the Natural Sciences, Berkeley), and the archeologist Colin Renfrew (Cambridge University).



“Biological Evolution: Facts and Theories,” held in Rome at the Pontifical Gregorian University (above), March 3-7, 2009.



Clockwise from upper left: Francisco Ayala, Stuart Kauffman, Colin Renfrew, and Ronald Numbers.

Gennaro Auletta, a professor at the Pontifical Gregorian University and the scientific coordinator for STOQ, was pleased by the number of high-ranking Church officials who attended the conference, including Cardinal Levada, the Prefect of the Congregation for the Doctrine of the Faith. Such interest, Auletta said, is a clear sign of the Church’s eagerness to see clergy “play a major role in the context of modern society.” As he continued, “The STOQ project is facing what we think is the most relevant challenge the Church has today: continuing to play a guiding role in our society as it is becoming more dependent on scientific developments. This requires the Church to open and pursue a real dialogue with the natural sciences. This does not mean renouncing its own strong and well-grounded philosophical and theological background but, rather, enriching and deepening it thanks to that dialogue.”

The Rome conference also sparked some controversy. As the Associated Press reported, the Discovery Institute, the leading advocate of “intelligent design” (ID), accused the Templeton Foundation of excluding its perspective:

Organizers of the five-day conference at the Pontifical Gregorian University said Thursday that they barred intelligent design proponents because they wanted an intellectually rigorous conference on science, theology and philosophy to mark the 150th anniversary of Charles Darwin's "The Origin of Species."

While there are some Darwinian dissenters present, intelligent design didn't fit the bill, they said.

"We think that it's not a scientific perspective, nor a theological or philosophical one," said the Rev. Marc Leclerc, the conference director and a professor of philosophy of nature at the Gregorian. "This makes a dialogue very difficult, maybe impossible."

He denied the decision had anything to do with Templeton's funding for the conference. "Absolutely not. We decided independently within the organizing committee, in total autonomy," Leclerc said.

Charles Harper, senior executive vice president of the Templeton Foundation, echoed these views in an email to the *Templeton Report*, while also stressing that the content of the conference had been determined solely by its organizers. "We welcome serious, open debate," he said, but "we use peer review in our grant-making, and professional biologists see the ID position as grossly lacking in scientific rigor and credibility. The ID movement simply lacks any record of scientific accomplishment to match its widely stated claims to have undermined the mainstream of contemporary evolutionary biology."

The *Times* of London also reported from the conference, noting that the "Vatican has rejected the claim by Richard Dawkins, the biologist and campaigning atheist, that evolutionary theory proves that God does not exist":

Rafael Martinez, professor of the Philosophy of Science at the Santa Croce Pontifical University in Rome, said although the reaction of Catholic theologians, intellectuals, and priests to Darwinian theory had been "generally negative" in the 19th century, "recent declarations by Popes have asserted the full accordance of Catholic doctrine and evolutionary biology." He said, however, that this was not widely known, and the false impression had arisen "that the Holy See is opposed to evolution." Monsignor Gianfranco Ravasi, head of the Pontifical Council for Culture, . . . said there was "no *a priori* incompatibility between evolution and the message of the Bible."

Paul Wason, the director of life sciences at the Templeton Foundation, attended the conference in Rome and said that the STOQ initiative was not meant just to cover the conventional wisdom in evolutionary theory. "We are not sticking to safe, standard textbook biology. We are looking for new scientific developments and how they might be relevant to our thinking." He emphasized that this was true of STOQ's efforts across all of the sciences.

Some of the most prominent scholars in the Catholic world have become members of STOQ's board of advisers. They include the Swiss microbiologist Werner Arber, winner of the Nobel Prize in physiology and medicine; Father George Coyne, former director of the Vatican Observatory; and Rev. Professor Michael Heller, the Polish priest and cosmologist who won the 2008 Templeton Prize.

NOTEBOOK

The Nature of Time

The Foundational Questions Institute (FQXi), a major grantee of the Templeton Foundation, recently announced the winners of its essay contest on “The Nature of Time.” The Institute received 150 submissions, and 22 of the essays won a share of the \$50,000 in prize money.

A first prize of \$10,000 went to Julian Barbour, a visiting professor at Oxford University and the author of two books, *The Discovery of Dynamics* and *The End of Time*. In announcing the winners, Anthony Aguirre, the associate scientific director of FQXi and a professor of physics at the University of California at Santa Cruz, said that the jury admired Barbour’s essay, titled “The Nature of Time,” for “its crystal-clear and engaging presentation of a problem in classical dynamics, namely, to find a measure for duration or the size of a time interval. The paper argues lucidly, and in a historically well-informed manner, that an appropriate choice for such a measure is not to be found in Newton’s pre-existing absolute notion of time but rather emerges, in the form of ephemeris time, from the observable motions and the assumption of energy conservation.”



Salvador Dalí, “Soft Watch At Moment of First Explosion,” 1954.

Second prize, with a purse of \$5,000, was a tie between Claus Kiefer, a professor of theoretical physics at the University of Cologne, Germany, who wrote an essay called “Does Time Exist in Quantum Gravity,” and Sean Carroll, a senior research associate in theoretical physics at the California Institute of Technology, who wrote an essay called “What if Time Really Exists?”

“Time is central to human experience,” noted Aguirre, “but when closely examined raises a set of subtle and baffling questions that have perplexed philosophers, scientists, and other thinkers throughout history. It’s been really interesting and rewarding to see the combination of intellectual rigor and real excitement that the contest has brought out.”

The Science of Generosity

How do children learn to be generous? Why do some countries have higher rates of philanthropy than others? What effect does faith have on people’s charitable giving? These are some of the questions that will be tackled by the Science of Generosity project at the University of Notre Dame, which was announced in January. With a four-year, \$5-million grant from the Templeton Foundation, scholars will be studying the “sources, origins, and causes of generosity; the variety of manifestations and expressions of generosity; and the consequences of generosity for both the givers and receivers involved.” The grant is the largest ever received by a faculty member in Notre Dame’s College of Arts and Letters.



The principal investigator on the project will be Christian Smith, the William R. Kenan Jr. Professor of Sociology and director of the university’s Center for the Study of Religion and Society. “The goal of the project is to mobilize top-quality research across various disciplines on the origins, expressions, and effects of generosity,” Smith said, noting that the project defines generosity as the spirit and practice of giving good things to others freely and abundantly. “This includes time, aid, attention, blood, possessions, encouragement, emotional investment, and more. In countless ways, the world wants for significant growth in the virtue of giving.”

Today is the deadline for letters of inquiry for the project's first round of funding, but another round of funding will be available in September. The project's board of advisers includes William Damon, professor of education at Stanford University, William Galston of the Brookings Institution, and Stephen Post, author of *Why Good Things Happen to Good People*.

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