Religion prize winner says science needs ethics

By Larry Witham

Scientific futurist Freeman J. Dyson, a Princeton physicist who argues that science should be humble and serve the poor, yesterday received the Templeton Prize for Progress in Religion.

"Technology must be guided and driven by ethics if it is to do more than provide new toys for the rich," Mr. Dyson said at a New York news conference.

"Scientists and business leaders who care about social justice should join forces with environmentalists and religious organizations to give political clout to ethics," he said.

Mr. Dyson, a native of England who worked on the mathematics of bomber tactics during World War II and nuclear arms control afterward, is an agnostic but an advocate for religion's role as a source of moral knowledge.

"Trouble arises when either science or religion claims universal jurisdiction, when either religious dogma or scientific dogma claims to be infallible," Mr. Dyson said. He has retired in Princeton, N.J., where he spent much of his career at the Institute of Advanced Study, made famous by Albert Einstein.

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The Templeton Prize, worth $48,000, was endowed by global investor Sir John Templeton. Previous recipients of the prize include Mother Teresa of India, Russia's Alexander Solzhenitsyn and the Rev. Billy Graham.

"The prize is not for sanctimony or mere good works; it is for progress," Mr. Templeton has said.

The amount of the award — traditionally the richest in the world — has been reduced this year because it is pegged to the Nobel Prize, which is paid in Swedish krona, which has lost value.

In a phone interview, Mr. Dyson said he will use the award "as a serious matter" still to be decided.

"Science is a club that is great fun to belong to," said Mr. Dyson, who holds only a bachelor's degree in science. "The main thing for a young scientist is not to get too specialized, not to get too painted into a corner by learning only one thing."

He counseled "flexibility" in a science career, saying it might be a good idea to "switch careers every five years or so." And he said that religion is a kind of knowledge that is "equal" to scientific knowledge.

"Many religious people are agnostic," he said, referring to himself, reared in a liberal Anglican home. "You live with uncertainty just as you do in science. Science is mostly just a lot of clever tools. I love tools, but that's what science is basically. It is a tool for getting knowledge."

Mr. Dyson, 77, is the 10th person in science or science and religion to receive the award.

Having worked with Robert Oppenheimer and Edward Teller, inventors of the atomic bomb, Mr. Dyson is credited with uniting disparate theories on quantum electrodynamics, or light radiation, into one theory.

He helped invent a small and safe nuclear reactor used to produce short-lived nuclear isotopes for medicine and was the chief theoretician for propulsion systems for a nuclear-powered spaceship.

That initiative, called the Orion Project, ended partly as a consequence of the 1963 Nuclear Test Ban Treaty. The previous year, Mr. Dyson had become a consultant to the U.S. Arms Control and Disarmament Agency and now is a critic of military doctrines that included nuclear weapons.

Though he does not like the "futurist" label, it was applied to him when he began writing for the general public in his 50s. He has said that astronomy and biology will be the crucial frontiers and has raised the specter that bioengineering might create two human species, with "biological battles fought between different conceptions of what a human being ought to be."

Still, "religion will remain in the future a force equal in strength to science," he has written.

Mr. Dyson also has been called a populist on science. He is critical of "big science" and argues that the field must serve ordinary people.

His book on nuclear weapons, "Weapons and Hope," won the National Book Critics Circle award in 1984. But "the book I like best," he said yesterday, was about the daily life of a scientist called "Disturbing the Universe."