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Science turns to faith for GM seeds

By [Divya Rajagopal](#), ET Bureau | Updated: Dec 19, 2016, 12.38 PM IST

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STOCKHOLM: [Richard Roberts](#), the [Nobel laureate for medicine](#) (1993), is known for his discovery of "split genes," a path-breaking analysis of DNA that along with fellow molecular biologist Phillip Sharp gave newer understanding on the working of human genes.

Roberts, 73, is one of the biggest advocates of genetically modified (GM) seeds, an issue that is matter of bitter contention between molecular biologists and green parties. But Roberts says science must win. In June this year, he managed to convince 121 Nobel laureates to endorse GM technology by starting the "Abandon the campaign against GMO" to take on NGOs like Greenpeace. His next move is to reach out to religious leaders for their support.

"I want to convince civic and religious leaders on how GM seeds are completely safe technology to use. I have asked for a personal meeting with the Pope in the coming week to discuss this issue and I am waiting to get a response. I was told that it was looking good," Roberts told ET last week at the Nobel Week Dialogue in Stockholm, where Nobel laureates past and present, discussed the issue of Future of Food.



Roberts' biggest grouse is against green parties and NGOs like Greenpeace whom he calls "criminals" for blocking access to the GM technology to millions of people in the developing world. (Credit: Niklas Elmehed, Nobel Media AB)

Roberts' biggest grouse is against green parties and NGOs like Greenpeace whom he calls "criminals" for blocking access to the GM technology to millions of people in the developing world. His idea of getting other Nobel laureates on board for this issue was also a way of protecting plant scientists who he says have faced enormous difficulties in their work because of the anti-GMO protests.

"The problem is that most scientists believe they can convince the general public about stuff on the basis of their science but that is not true. This (GM) is an emotional issue because as far as science is concerned, it is clear that GMOs have been shown to be safer than traditional crops."

A GM seed is created by modify ing the DNA of a crop in a laboratory instead of traditional crossbreeding either to enhance the nutritional value of a crop or so that they can be fortified against rot by insects. But critics of this technology have linked the issue to farmer suicides in countries like India for "messaging" around with nature.

India has introduced GM seeds through BT [cotton](#) seeds. The pre sent debate in India has moved on to the GM mustard. Roberts gives his own version of 'dummy's guide' to GM seed to take on his detractors.

"So I got two cars, one of them has GPS system and other doesn't. So I want to get this GPS system from one car to the other, so what do I do, do I take all the parts out and mix up and select the one which has GPS? No, I take the GPS system from one car and put this in the other. So GMO method says I want this gene, I move it into the plant where I want it go, so I don't mix up both the plants and hope that I would get what I want," Roberts explains.

"So if I take the GPS system from the airplane does that mean that the car will fly? No, of course it doesn't. But Greenpeace would like you to believe that if you take a gene from a salmon and put it in a plant, the plant is going to swim."

Roberts said that though GM might not be the magic bullet, it is the best way we have at the moment to make better crops.

"The developing world needs it and if the developing world doesn't have the access to technology which the Europeans are trying to stop them from using, you are gonna have lot of people die. So you still have to use good agronomic practises, you still have to rotate crops and you would still do everything you would with any other crop. The only difference is that it is faster and easier way to make new crops."