

# Dr Salam sees second Nobel prize

KUWAIT, Nov. 27: Pakistani physicist Abdus Salam, 1979 Nobel prizewinner for his work on subatomic particles and the forces which bind matter together, has set his sights on another Nobel prize — in biology this time.

Salam, a frail 66, told Reuters in an interview on Friday he had set about applying his knowledge of these basic forces to the behaviour of the amino-acids recognised as the building blocks for life on earth.

His thinking so far, he said, leads him to conclude that the origins of life lie somewhere else in the universe.

"I think it probably developed on other planets and then came to this earth," he said. "There's a Nobel prize in there if this study comes off."

The starting point for his argument is the so far inexplicable fact that amino-acids in the forms of life found on earth are almost invariably polarised to the left.

"That's the mystery. Amino-acids turn left in certain environments, and those environments are not found on earth."

"The chemists know about this left-right dichotomy but they tell me it is an act of God," mocked Salam, one of the few top physicists who retains his religious faith.

Salam, head of the International Centre for Theoretical Physics in the Italian city of Trieste, believes the shift from right to left polarity takes place at a temperature of around -73 degrees Celsius (-100 Fahrenheit).

He gathered experimental scientists in Trieste two weeks ago and asked them to go out and test the theory.

It is not as easy as it might sound.

Even at the low temperature he proposes, the switch, known as a phase transition, would probably occur in only one out of 1,000 billion amino-acid molecules on any given day.

The probability is derived from the mass of the subatomic Z particle which Salam "invented" in the 1970s for his theory which explains both the electromagnetic force and the weak nuclear force. The Z particle was eventually detected in 1983.

Salam said his idea on the extraterrestrial origins of life had so far had a hostile reception and the first experiments had proved negative.

"But I say so far advisedly," he added with a smile.

Chemists, he said, were reluctant to take into account the latest developments in subatomic physics. "They have not reconciled themselves to my W and Z particles. There are chemists who do not favour any forces but chemical forces."

Salam is in Kuwait for a conference of his Third World Academy of Sciences, an organisation set up in 1985 to promote scientific excellence in developing countries.

But Salam, a Muslim, is pessimistic about the prospects for science in Africa and the Islamic world.

"They have a long, long way to go," he said. "There appears a scant future for science in these societies at present."

He said students in Muslim countries spent too much time on religious studies. In some countries obscurantist ideas, such as opposition to evolution, prevented scientific progress.

"Some like to be ignorant and to keep others ignorant."

The religious authorities in Saudi Arabia, for example, frowned on his academic achievements. —Reuter.