

China to strengthen joint research in fusion power

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BEIJING, Feb. 6 (By Yu Zheng "Xinhuanet) -- Chinese scientists are considering strengthening international cooperation in research on fusion power plants, one of China's top science and technology decision makers said here recently.

In a recent interview with the BBC, Lu Yongxiang, president of the Chinese Academy of Sciences (CAS), said fusion power plants will be final result of today's studies of plasma physics.

China, the European Union, Japan, the Republic of Korea, Russia and the United States are collaborating on the international experimental program, called ITER, which means "the way" in Latin.

Lu, who is also a CAS academician specializing in hydromechanics, estimated that commercialized fusion power plants might be put into use in the next 50 to 70 years.

ITER is based around a hydrogen plasma torus operating at over 100 million degrees Celsius, which will produce 500 MW of fusion power.

Lu said he hopes global scientists will conduct further research on fusion technology.

In his estimation, in the long run the world's energy will come primarily from clean energies, supplemented by nuclear energy.

Lu also said scientific breakthroughs, including possible ones in stem cell research, should never be held up by outside forces. He said China supports stem cell research for therapeutic use.

Lu said he advocates making stem cell research more transparent in order to let the whole scientific community oversee the research process.

"Although new scientific advancement will possibly bring about unexpected ethical issues," he said. "The consciences of human beings and creativity of scientists would help find way out."

Lu said genetically modified food has aroused heated debate among Chinese scientists and strategists. The Chinese government has set "principled policy" on the research, he said.

China actively supports research on genetically modified food, supports experimental planting of such crops and deems it necessary to label such food for consumers' sake, Lu said.

As a large, developing country, China encourages its scientists to expand their research frontiers as far as possible. Scientists could choose research topics in accordance with their own interests while the state will do some strategic outlining in correspondence with proposals from scientists.

The Chinese government believes that science and technology are driving forces for the country's overall social and economic development, Lu said.

From 2001 to 2005, China doubled its budgetary expenditure on research and development if compared with that from 1996 to 2000, he said.

In 2003, the research and development expenditure was 153.96 billion yuan (18.6 billion US dollars), with a year-on-year increase of 19.6 percent and accounting for 1.31 percent of the country's gross domestic product.

Joint research and international collaboration will help promote the prestige of Chinese scientists among their global peers, Lu said.

"But fundamentally," he said, "China needs to cultivate an environment for innovation."
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