Physics funding to benefit cancer treatment

http://www.firstlight.cn 2006-12-15

[作者] University of Oxford
[单位] University of Oxford
[摘要] 8 December 2006.- A research consortium of a dozen UK universities including Oxford has been awarded an £8.5m grant to develop a new type of particle accelerator which could lead to more powerful treatments of cancer.
[关键词] Physics;particle accelerator;cancer

8 December 2006.-

A research consortium of a dozen UK universities including Oxford has been awarded an £8.5m grant to develop a new type of particle accelerator which could lead to more powerful treatments of cancer.

The research consortium, called BASROC (British Accelerator Science and Radiation Oncology Consorti um), was awarded the grant by the Research Council UK (RCUK) Basic Technology Programme.

Particle accelerators have many uses –

from fundamental research into the mysteries of the big bang to unravelling the structure of viruses. They are also used in cancer treatment, where so

-called charged particle therapy works by accelerating protons or carbon ions to just the right energy to destroy a tumour.

The new accelerator will be smaller, simpler and significantly cheaper than current machines. Over the next three years, a small accelerator will be built in the UK to demonstrate that the technology works while the design of a prototype cancer therapy machine is being developed in parallel.

Professor Ken Peach, Director of the John Adams Institute for Accelerator Science at Oxford University, said: "This is the first major achievement of BASROC, which was established earlier this year at a meeting at Wolfson College, Oxford, to promote the applications of accelerator science in science and society. The project will demonstrate that the technology could be used to develop a new generation of cancer therapy facilities that are efficient, e

Professor Gillies McKenna, Director of the University of Oxford's new Initiative for Radiation Biology Research, said: "Particle therapy centres are currently being built all around the

world. They hold the promise of increasing cancer cures, and simultaneously greatly decreasing the toxicity of treatment. This could be significant for all patients, but it is particularly important for children with cancer.

"The Oxford group will be working intensively on this project, and we believe that Oxford, and particularly the new Cancer Research Campus in Headington, is an ideal place for such a development in the UK because it brings together the clinical and world

-class research expertise needed to bring it off. This grant is an essential first step for Britain to enter this major new area of medical research.