



## APPLICATIONS

### FLASH THERAPY GIVES NEW HOPE FOR TREATING TUMOURS

Fondazione Pisa will support with a grant of €1.3 million the research project 'Electron Flash Therapy', which was presented on 12 October at a press conference in the Palazzo Blu auditorium. The project involves conducting a thorough study of the so-called FLASH effect, a line of research on which an agreement with the University of Pisa, the institution leading the project, was signed, together with the University Hospital of Pisa, CNR (the Italian National Research Council), and INFN. The Flash effect is a radiobiological effect that makes it possible to drastically reduce the damage to healthy tissue, by distributing the radiotherapy dose in fractions of seconds, while maintaining the same therapeutic effect on the tumour and, therefore, effectively treating tumours entailing a bad prognosis.

The Multidisciplinary Pisan Centre for Clinical Research and Implementation of Flash Radiotherapy (CPFR) was recently founded in Pisa. The centre combines the top scientific and clinical experience and expertise in the region and involves the University of Pisa, the University Hospital of Pisa, CNR-Neuroscience Institute, and INFN. The CPFR is being equipped with a LINAC (linear electron accelerator) specially designed that will have a triode electron gun, a unique feature among this type of source that should enable a series of decisive experiments for understanding the Flash Therapy mechanism.

The specific Flash Therapy accelerator and the synergy between multidisciplinary expertise are the basis for the Electron Flash Therapy project research line that aims to be the first in Italy to obtain authorisation for Flash Therapy clinical testing on human beings. ■