

PNRR - Anthem (AdvaNced Technologies for Human-centrEd Medicine)



An RF accelerator based BNCT facility in Caserta within INFN participation to Anthem PNRR initiative

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The project Anthem, (Advanced Technologies for Human Centered Medicine) recently approved as PNRR initiative, includes the realization of an innovative accelerator based BNCT (Boron Neutron Capture Therapy) facility at Caserta Polyclinic in Campania region, Italy. INFN (LNL, Pavia, Napoli, Torino and LNS) is participating with the design and construction of the epithermal neutron source, that will assure a flux of 10^9 n/(s cm²) with characteristics suited for deep tumors treatment. The accelerator design makes the best use of INFN developments and edge technology components well established in the last years. The design includes the RF ion source TRIPS, the cw RFQ TRASCO, the solid state amplifiers developed within the "Progetto premiale" MUNES, a thick beryllium target and a BSA (beam shaping system) developed within CSN5. The status of the project will be given.