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[205] DEFT - A Very High Energy Electron linac for FLASH radiotherapy

The "FLASH" effect is currently a topic of considerable interest in radio-oncology. We present the design of a novel VHEE linac, to be built and installed at CHUV (Lausanne), capable of producing electron beams which deliver radiation at dose rates and time scales consistent with the FLASH effect. The design is based on X-band radio-frequency technology, developed at CERN for the CLIC study. The e-beam properties (energy, intensity, temporal structure, profile) correspond to a CHUV specification and would allow large, deep seated, tumours to be treated. Construction of DEFT (Deep Electron FLASH Therapy) will be assured by the company THERYQ in the context of a CHUV-CERN-THERYQ collaboration.

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