

## **Innovative RT, Multiple Particle RT, Nano-Part., Synchro-Radiation**

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Beside X-rays, used for about 99% of any radiotherapy (RT) as 3D conformal or more and more IMRT/VMAT or SRT/SBRT or helical RT, there are existing many other forms of radiotherapy or innovative associations of radiation and systemic agent (pharmaceutics...).

At the present time it is difficult to know if one or another innovation will have a consistent future. Nevertheless, it is interesting for professionals involved in RT to have an insight in different ways of application of radiations since fundamental and original concepts are often the base of there domain. Improved understanding of tissues response or idea for alternative applications may rise from such knowledges.

In this course, innovative RT as particle therapy, multi-particle therapy, different type of possible applications of synchrotron radiation (monochromatic broad beam or micro beams arrays), development of nanoparticle use, spatial fractionation, ultra short irradiations (Flash), etc. will be described and illustrated.