

## **Main Steps in Radio/Hadron/therapy tools**

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Only a few months after the discovery of X-rays (defined as "X" in the sense of "unknown") by Wilhem Roentgen, Victor Despeignes in Lyon (Fr) was the first to use this novelty to treat a patient with a serious cancerous tumor. Then opened an exciting period to discover by little and little the rules of a new branch of science that will become the X-ray radiotherapy.

Almost in parallel, after the discovery of Radioactivity and Radium by the trio Henri Becquerel, Marie Curie and Pierre Curie, several identical attempts to treat superficial cancers were undertaken, always in stages, to gradually discover the rules of a method of "Particle" Therapy called this way to differentiate this method from the X-Ray method.

These two methods linked by the common effects of radioactivity on living cells, they progressed in parallel but with many bridges that have been revealed by little and little with the notions of delivered dose, fractionation of the doses etc ..

This progress had sometimes been slow, sometimes fast under the impulse or intuition of some brilliant personalities who can be an example for us. We can cite Robert R. Wilson, announcing the essential role of protons in the treatment of deep cancerous and radio-resistive tumors, 15 years before the use of protons in a systemic treatment.

We will try to show how we arrived at the impressive arsenal of Radiotherapy and Hadrontherapy today.