

**International Conference - Advanced Radiotherapy, Generated by Exploiting
Nanoprocesses and Technologies**

**22-24 Jan 2018, CNRS, Univ. Paris-Saclay, Gif-sur-Yvette (Paris region),
France**

Chair: Prof. Sandrine Lacombe - Univ. Paris-Sud, Univ. Paris-Saclay

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Cancer remains a major European health concern. More than 50% of patients receive radiotherapy as part of their cancer treatment. The main limitations of this treatment are the lack of tumour selectivity, which causes severe side effects, and the radioresistance of tumours. Highly promising approaches to improve the **performances of radiation-based therapies** include **advanced radiation protocols** (such as fast ion beam radiation or ultra-high-dose rate radiation) and **nanoparticles-enhanced therapies**.

This **international conference** brings together World **leading researchers** of different disciplines: physicists and medical **physicists, chemists, biologists, medical doctors and SMEs** with the aim of presenting their results of exploiting and understanding the nanoscale processes, towards the development and optimization of new **nanodrugs** together with **novel radiation protocols** – a high-excellence effort that should lead to a new era for radiotherapy with subsequent economic and quality of life benefits for the population.

MAIN TOPICS

- 1. Biological effect of nanoparticles combined with photon or particle therapy**
- 2. Elementary mechanisms and nanodosimetry**
- 3. Nanomaterials for radiation-based cancer therapies**
- 4. Simulations of radiation effects**
- 5. Medical and industrial perspectives**

CONTACT

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