



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

PhD Program in Molecular and Regenerative Medicine

Molecular and Regenerative Medicine Seminar Series (MRMss)

Nanotechnology in Oncology: From Molecular Targeting to Clinical Translation

Dr. Alessandro De Vita, PhD

Friday, 28 March 2025, 2:30 PM

Aula N0.1 (Aula 1 BSI) - Piano terra

Biblioteca scientifica interdipartimentale [MO19] Via Campi 213/C

Dr. Alessandro De Vita's primary research interests are in the development of novel nanotechnologies for the targeted treatment of solid tumors, which are paving the way for individualized therapeutic strategies and tailored clinical trials for triple-negative breast cancer, sarcoma, and melanoma.

Dr. De Vita is a pharmacy graduate from the University of Modena and Reggio-Emilia with a PhD in Science and Technology of Health Products. He presently holds the Assignment of High Specialization in Nanotechnology and Sarcoma at the IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori" in Meldola, Italy, and serves as an adjunct professor at the Department of Pharmacy and Biotechnology, University of Bologna. With 12 years of expertise in oncological research and nanomedicine, De Vita has more than 70 publications in international journals, serves on the editorial boards of numerous international peer-reviewed scientific journals, and is an active member of several scientific societies.

He pioneered a groundbreaking nanoparticle treatment for solid tumor therapy, which is protected by an international patent, at the Methodist Hospital Research Institute in Houston, USA, and he served as a visiting researcher at Aviano's Oncological Reference Center in Italy and at Lyon's Centre Léon Bérard in France, where he performed advanced studies on sarcomas. He contributed to the development of LIPO-LOX, a patented lipid-based delivery system for the targeted treatment of triple-negative breast cancer, and he is currently investigating the LIPO-LOX system for the therapy of soft tissue sarcomas and melanoma. Additionally, thanks to a 20-year-old Cell Factory authorized by the Italian Medicines Agency for the production of Advanced Therapy Medicinal Products (ATMP) in the Institute, he is exploring the potential of this nanotechnology platform as a strategy to enhance the efficacy of an autologous dendritic cell-based anticancer vaccine against sarcoma and melanoma.

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