

NORA BLOISE: project leader

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Nora Bloise received her degree "*magna cum laude*" in Medical Biotechnology at the University of Florence in 2009; she obtained a Ph.D. in Biomedical Sciences at the University of Pavia, spending the last year of her Ph.D. at KU Leuven University (Belgium) thanks to an international mobility project.

Since 2009 she has been carrying out research with the group of Professor Livia Visai, first as a pre-doctoral fellowship researcher, then as a Ph.D. student and finally since 2014 as a post-doc researcher, supported by different post-doc fellowships and other funds granted; she was involved in the crowdfunding campaign on the "Universitiamo.eu" platform for the project "*Breast cancer: defeat it with smart gold nanospheres*", which was funded in 2015 and that supported her research activity focused on the characterization and assessment of the properties of gold-based nanosystems as a new weapon for the treatment of breast cancer.

For three consecutive years (2017- 2019) she won the Umberto Veronesi Foundation (FUV) post-doctoral grant, proposing three original projects on cancer nanomedicine. Currently, she is an Adjunct Professor in Biochemistry and Molecular Biology, teaching assistant, tutor for the undergraduate student in General Chemistry and Biochemistry, and co-supervisor of numerous bachelor and master-degree theses at the University of Pavia.

She has extensive training and matured experience in nanobiotechnology and therapy modalities for cancer treatment and tissue regeneration as confirmed by her scientific publications in international peer-reviewed journals.

Her current research is dedicated to the development of new nanomedicines through a multidisciplinary approach, such as the development and biological evaluation of gold nanoparticles (GNPs)-based delivery systems for diagnosis and treatment of breast cancer. Other interests are to provide comprehensive biological/molecular insights of the interaction between different shaped GNPs and breast cancer cells, the establishment of 2D/3D *in vitro* models to assess the functionalities of the nanoproducts and lastly, through biochemical/molecular techniques, the evaluation of the effects of biophysical factors on cell behavior modulation in order to assess their application in tissue regeneration. She is enthusiastically involved in public outreach and numerous cancer research dissemination projects.