

Prof. Marie Claire Cantone

Marie Claire has a degree in Physics, a postgraduate diploma in Health Physics, and she is professor of Applied Physics in Medicine, at the Department of Biomedical, Surgical and Dental Sciences, Faculty of Medicine, University of Milan. Her teaching activity includes: Medical Physics for students in Medicine; Medical Physics, and Radiological Protection for students in Physics; Internal dosimetry for students of Medical Physics Specialization. She is Director of the Postgraduate Specialization School in Medical Physics, 2006-13.

She serves as: - member of ICRP Committee 3; - member of IRPA Executive Council; - member of ICRP TG 94; - member of NEA CRPPH and of Expert Group RP Science; - President of the Italian Association of RP, 2013-15, vice president for the previous 3 years, and vice chair of the International Committee of the same Association, from 2010; - chair of IRPA TG on the impact of the Eye Lens Dose Limits, from 2015, and vice chair of the previous TG phase since 2012; - co-chair of the WG3 within the IRPA initiative on RP Culture 2011-14; - convener in the Nuclear Physics European Collaboration Committee, NuPECC on Nuclear Physics for Medicine, 2012-14; - chair WG on prospective approach for risk in Radiation Therapy technologies, of the Italian Association of Medical Physics, 2010-14, and member of the Research Commission of the same Association, from its constitution in 2016.

In the last 20 years she is the scientist in charge of projects for University of Milan in Euratom Fission and RP, 3rd – 7th Framework Program, and H2020. The research activities cover different aspects of RP, including: - internal dosimetry in accidental exposure of public and workers; biodistribution and kinetics of radiopharmaceuticals and the optimization of imaging protocols in nuclear medicine; - development and characterization of doped silica optical fibers for a real time dose measurement with attention to radiation therapy; - prospective approaches to assessing and reducing the risks to patients undergoing radiation therapy, e.g.: Intraoperative radiation therapy, Tomotherapy, Protontherapy, Stereotactic body radiation therapy.

She is author/co-author of 120 articles/book chapters, including 100 papers in peer-reviewed journals and book chapters, e.g.: - 'Radioisotope Production', in NuPECC book on Nuclear Physics for Medicine, EU Science Foundation, 2014; - 'Radiation exposure to embryo-foetus and newborn child', in Radiation Protection in Nuclear Medicine, Springer, 2013; - 'The Role of Radiation Physics in Nuclear Medicine', in Radiation Physics for Nuclear Medicine, Springer, 2011; - 'Radio activation analysis and isotopic tracers', in Encyclopedia of Life Support System, UNESCO, 2009. She is co-editor of the book 'Radiation Physics for Nuclear Medicine', Springer, 2011.

