

Renzo Vanna obtained a PhD degree in molecular medicine in 2012 (Unimi/ITB-CNR) by studying neuromelanin from human brain. Then he joined the newly started Laboratory of Nanomedicine and Clinical Biophotonics (LABION) at IRCCS Fondazione Don Gnocchi hospital (Milan) where he began to focus his interests on biophotonic and Raman approaches. After a short post-doc at Twente University (NL), under the supervision of Prof. Cees Otto, he coordinated the EU ERA-NET project "NanoPlasmiRNA" aiming to detect miRNAs related to multiple sclerosis using nano-enhanced surface plasmon resonance imaging approaches.

In 2018, together with a young colleague, he co-founded the new Nanomedicine and Molecular Imaging Lab at IRCCS ICS Maugeri research hospital where he mainly coordinated a study on breast cancer calcification using Raman imaging approaches. In 2020 he obtained a permanent position at Institute for Photonics and Nanotechnologies (IFN-CNR), based at the Physics Department of Politecnico di Milano.

He is currently working with a permanent position at the Institute for Photonics and Nanotechnology (IFN) of the Italian National Research Council (CNR), based at Politecnico di Milano (Physics department).

He leads research activities based on the use of a home-built confocal Raman microscope and he has a key-role in bridging biophotonics tools and biomedical needs using spontaneous Raman microscopy, coherent Raman microscopy, photo-thermal microscopy and Brillouin spectroscopy. In this context he is tasks leader in three European projects ("CRIMSON" (H2020 ICT-36), "TROPHY" (Horizon EIC Pathfinder) and "CHARM" (Horizon EIC Transition)), started between 2020 and 2022, focused on the use of vibrational imaging approaches for diagnostic and biomedical applications.

He is member of "Raman4Clinics" and of the International Society for Clinical Spectroscopy (CLIRSPEC).