

Francesca Demichelis is expert in the area of Cancer Genomics. Dr. Demichelis' laboratory in Computational and Functional Genomics at the Centre for Integrative Biology at the University of Trento (Italy) focuses on the characterization of tumor evolution and progression through the study of intra- and inter-tumor heterogeneity. Using single base level information from tissue biopsies and circulating DNA in patients' plasma, tumor dynamics and evolution maps are charted to inform on patient's status and treatment response. Dr. Demichelis also studies the impact of inherited polymorphisms, including structural variants, within transcriptionally active regulatory regions of the genome on the initiation of hormone regulated cancer phenotypes. Her research group is involved in consortia studies including The Cancer Genome Atlas (TCGA) and Stand Up 2 Cancer International/ PCF Dream Team. Dr. Demichelis has received support from multiple funding agencies including the European Research Council (ERC), the Department of Defense (USA), the National Cancer Institute (NCI), the Prostate Cancer Foundation, the MIUR and the Italian Association for Cancer Research (AIRC).

She trained at the University of Trento (Physics Department; Information and Communication Technology PhD School), did her post-doc at Brigham and Women's Hospital/Harvard Medical School in Boston, and led her own laboratory at Weill Cornell Medicine (NY) between 2007-2011 before moving to Centre for Integrative Biology at the University of Trento, where she is now Full Professor in Molecular Biology.