

Marco Filice obtained his Ph.D degree in Pharmaceutical Chemistry from the University of Pavia in February, 2007. He spent the last 11 years as postdoc Researcher in prestigious Public, Academic and Private Research Centres within Italy, France, Brazil and Spain. In 2018, awarded as PI with the highly competitive 'Scientific Talent Attraction' programme funded by the Madrid Region, he joined the Dept. of Chemistry in Pharmaceutical Sciences, Complutense University of Madrid (UCM) where he founded the 'Nanobiotechnology for Life Sciences' group (<http://nanobiotech4ls.com/>)'.

His initial research work focused the development of a strong multidisciplinary approach able to **design and synthesize novel chimeric construct** useful to access small and large biomolecules with highly improved or novel properties. These artificial hybrids have been applied **to improve many human healthcare aspects**, for example, by developing advanced bioprocesses accessing the enhanced production of Active Pharmaceutical Ingredients, nutraceuticals or biofuels. Later, thanks to the **integration with nanotechnology**, he widened the application scope of these hybrid nanoconstructs also to the **ultrasensitive molecular diagnosis and theranosis** of cardiovascular, cancer, pulmonary and, very recently, immune-based diseases (ongoing 4- years project in Biomedicine entitled 'Myeloid specific targeted nanoimmunotherapy for organ transplant acceptance'.(2018-2021, NIETO-CM), granted by the ' Comunidad de Madrid')).

His scientific production encompasses more than 66 publications in high impact factor ISI journals (References: >1030; H-Index 19, total IF:>260), 4 book chapters and 5 Intellectual and industrial properties (3 PCT). He served as Editor for an Elsevier book in 'Advanced Nanomaterials' Serie entitled 'Nucleic Acid Nanotheranostics-Biomedical Applications' (ISBN: 9780128144701). He obtained and participated in more than 21 R&D&I competitive national, international projects and research contracts (13 as PI). For example, in late 2015, he joined the Spanish National Cardiovascular Research Centre (CNIC), Madrid, awarded as PI with a highly competitive R&D National Plan for Young Researchers in Biomedicine (8.9% success rate) funded by MINECO. Supported by this last project, he opened a novel research line focusing the preparation of multifunctional enzyme-based nanochimers as theranostic agents for cardiovascular (e.g. myocardial infarction) and respiratory (e.g. pulmonary arterial hypertension, PAH) diseases, especially as highly promising miRNA nanocarriers. He is also affiliated with the Biomedical Research Networking Center for Respiratory Diseases (CIBERES) and he is Member of COST Action CA15209: 'European Network on NMR Relaxometry (EURELAX)'.

