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Since the original discovery of the first mutations affecting mitochondrial DNA in 1988, my carrier has developed being dedicated to the study of mitochondrial medicine, with particular reference to mitochondrial optic neuropathies. LHON has been the first topic explored over 25 years, unwrapping the different layers of the pathogenic mechanism, first investigating the Complex I dysfunction due to LHON mutations, then studying the cell biology of LHON through the model of cybrids, further tackling the histopathology of LHON under the guidance of Prof. Alfredo A. Sadun in Los Angeles, and recently phenotyping the first genetic mouse model generated by Prof. Doug Wallace.

In year 2001 I got back to Italy and took over the laboratory of neurogenetics at the Department of Neurological Sciences of the University of Bologna, diagnosing mitochondrial patients and building the clinical cohorts of LHON and DOA currently followed at the nowadays new location of the new IRCCS Institute of Neurological Sciences of Bologna at the Bellaria Hospital. Currently, molecular and cellular biology research is carried out thanks to the renewed laboratory of neurogenetics, and clinical translational research thanks to the dedicated clinic of neurophthalmology. My research group, joining the basic sciences and clinical teams, is composed of 4 PhDs, 3 lab technicians, and 3 MDs (2 neurologists and 1ophthalmologist). This team has extensive collaborations in Italy and abroad, in particular in Europe and the US.