



Francesca D'Addio MD, PhD, Specialist in Nephrology, Assistant Professor in Endocrinology, Department of Biomedical and Clinical Sciences L. Sacco, University of Milan, Milan, Italy. She started her research activity as part of her PhD program in 2006 when she joined the Transplantation Research Center – Brigham and Women's Hospital and Children's Hospital – Harvard Medical School under the supervision of Dr. Sayegh. In 2008 she was awarded with the American Society of Transplantation Basic Science Fellowship grant which allowed her to develop several projects focusing on the role of immune response in transplantation and diabetes. She moved back to Italy at San Raffaele Hospital in 2010 when she received the 2 – years long-term ERA-EDTA Fellowship Grant, which allowed her to pursue both her clinical and scientific interest in type 1 diabetes, particularly focusing on complications of type 1 diabetes and the effects of pancreas/islets transplantation. She worked in the Internal Medicine Department under the supervision of Dr. Paolo Fiorina and in the Fiorina Lab.

In 2013 she was awarded with the ISSNAF-Fondazione Marche Grant, which allowed her to join Prof. Paolo Fiorina Lab at the Boston Children's Hospital, Nephrology Division, and gain some new expertise in the study of type 1 diabetes and stem cell biology. This resulted in important publications in Cell Stem Cell and Trends Endocrinol and Metabol. In 2016 she came back to Italy and joined Transplant Immunology Unit – Fiorina Lab –San Raffaele Hospital, Milan Italy, as a Project Leader in stem cell biology and diabetes and she was awarded with the prestigious European Association of the Study of Diabetes (EASD) Rising Star Grant with a project focused on exploiting the role of B regulatory cells in the treatment of type 1 diabetes. In the meantime her interest in stem cell biology, particularly in intestinal stem cells role in diabetes and intestinal disorders allowed her and Paolo Fiorina to develop two new patents and a new Start-Up named Enthera, where both scientists are co-founders. In November 2016, she gained the position of Assistant Professor in Endocrinology at University of Milan and joined the newly established Romeo ed Enrica Invernizzi Pediatric Clinical Research Center at L. Sacco Hospital in Milan, under the supervision of Prof. Paolo Fiorina and Prof. Gianvincenzo Zuccotti.

In 2017, the expertise gained in studying stem cell biology particularly hematopoietic stem cells (HSCs) in type 1 diabetes lead to a publication in Science Translational Medicine on the relevance of PDL1+ HSCs in the treatment of type 1 diabetes. In July 2018, Paolo Fiorina's team discovered a new disease called HyperTh17 syndrome which is associated with a fragile immune system and maybe involved in favouring T1D onset. A new axis P2X7R/NLRP3 has been discovered to control the fate of T-helper cells upon immune activation and a mutation of the P2X7R on T cells promotes the skewing of Th cells towards Th17. This study was published in J Clin Investigation.