Dr. Leopoldo Staiano is Assistant investigator at TIGEM and tenured Researcher at the Institute for Genetic and Biomedical Research at the CNR-Milan. His work is focused on the study of the contribution of membrane trafficking and phosphoinositides metabolism to organelle homeostasis in order to decipher the molecular basis of inherited diseases. He got a PhD in Developmental Biology at the Stazione Zoologica Anton Dohrn in Naples and in 2012 he joined TIGEM as Postdoctoral Fellow in the lab of M.A. De Matteis where he worked on the study of the basic cell biology aspects of Lowe Syndrome and on the development of new therapies for this disease. Most of his work has been carried out in the context of this rare inherited kidney disease, for which in the last years he contributed to the identification of a new cellular role for OCRL (in autophagosome-lysosome fusion) and worked on the development of a novel promising therapeutic strategy to tackle kidney pathology in Lowe Syndrome. Other interests regard the study of intracellular trafficking of autophagic proteins and the regulation of key cellular functions, such as protein synthesis and their dependence on nutrient availability. His laboratory is also currently developing kidney organoids to model rare kidney diseases such as Lowe Syndrome, Fabry Disease and Cystinosis. The use of hESCs and patient-derived iPSCs to differentiate specific cell lines (muscle cells, cardiomyocytes, kidney epithelial cell lines) and 3D systems such as spheroids and kidney organoids is a growing interest and expertise of the laboratory and is used to generate more physiologically relevant in vitro model to study inherited diseases.