

After a PhD work in the George Thomas laboratory (Friedrich Miescher Institute, Basel, Switzerland), Mario Pende moved to Paris Cité University and was awarded the INSERM AVENIR contract in 2002, and became tenured PI in 2007. He received the ERC-starting and consolidator grants in 2008 and 2014, respectively.

Mario Pende has been interested in how signals from nutrient availability are transduced in the cell to impact growth and ageing responses, including cell size, cell proliferation, senescence, protein synthesis and metabolism. His main achievements in this field are the following:

1) identification of S6K1 and S6K2 as mTOR targets controlling cell size (Pende et al., *Nature*, 2000; Ohanna et al., *Nature Cell Biol.*, 2005)

2) impact of mTOR/S6K activities on metabolic adaptations and senescence (Aguilar et al., *Cell Metabolism* 2007; Barilari et al., *EMBO J.*, 2017)

3) involvement of this pathway in human diseases, such as cancer, cyst formation, epilepsy and rare overgrowth syndromes (Panasyuk et al., *Nature Communications*, 2012; Liang et al., *J Exp Med*, 2014; Bonucci et al., *Nature Communications*, 2020)