

Felipe VILELLA MITJANA – CV

Felipe Vilella, a Ph.D. in molecular biology, is the consolidated group leader of the Maternal-Fetal Crosstalk Laboratory at INCLIVA/Carlos Simón Foundation. He performed his first post-doctoral study at the Clinical Science Centre of the MRC in London (UK), supported by the Marie Curie program and a scholarship from the Ministry of Education and Science (FECYT), which aids Spanish researchers abroad. He studied DNA repair mechanisms and eukaryotic cell cycle progression during this time. He moved his knowledge of cell biology into the field of embryonic stem cells and their application in the field of regenerative medicine during his second post-doctoral stay at the Centro de Investigaciones Principe Felipe in Valencia (Spain). He was also a visiting researcher for five years at Stanford University (USA) and two years at Harvard University (USA). Felipe's main scientific interests focus on understanding the communication mechanisms between the mother and the embryo and elucidating how the mother genetically modifies the preimplantation embryo. His research was the first to demonstrate the transmission of genetic information from the mother to the preimplantation embryo, showing that the mother can modify the embryo transcriptomically and/or epigenetically regardless of genetic background (PMID: 26395145). He also studied the effect of microRNAs secreted by endometrial cells on the embryo (PMID: 31665361, 29390102) and used endometrial biopsies to enable the discovery of a transcriptomic signature of human endometrial receptivity. Felipe's current research focuses on the in-depth characterization of the endometrium using single-cell analysis (as part of the Human Cell Atlas society) to 1) provide unprecedented insight into the transcriptomic, genomic, and spatial changes occurring in this critical female organ throughout the menstrual cycle and across entire lifespans and 2) better understand embryo implantation (PMID: 32929266). Felipe has published 46 articles in peer-reviewed journals with an accumulated impact factor of 337.163.

His articles have been cited 4440 times with an average of 96,52 citations/paper. He has an H-Index of 29, has published 12 book chapters, has directed 6 Ph.D. theses, 2 Master's degree final projects, 5 degree final projects, and has supervised 21 student research stays. He has taken part in over 19 international projects, being an independent principal investigator in 14. He has also participated as an invited speaker at over 100 international conferences.