

### ***Felipe Vilella Mitjana, PhD***

Felipe Vilella, a molecular biologist, is the principal investigator of the Maternal–Fetal Communication group at INCLIVA/Carlos Simón Foundation. He completed his first postdoctoral fellowship at the MRC Clinical Science Centre in London (United Kingdom), supported by the Marie Curie program and a grant from the Ministry of Education and Science (FECYT). During this time, he studied DNA repair mechanisms and cell cycle progression in eukaryotic cells. He then transferred his knowledge of cell biology to the field of embryonic stem cells and their application in regenerative medicine during his second postdoctoral stay at the Prince Felipe Research Center in Valencia (Spain). He was also a visiting researcher for five years at Stanford University (USA) and for two years at Harvard University (USA).

Felipe's main scientific interests focus on understanding the mechanisms of communication 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 independently 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 in-depth characterization of the endometrium using single-cell analyses (as part of the Human Cell Atlas) to 1) provide an unprecedented view of the transcriptomic, genomic, and spatial changes occurring in this female organ across the menstrual cycle and throughout life and 2) better understand embryo implantation and how they communicate with each other (PMID: 32929266).

Felipe has published 50 articles in scientific journals with a cumulative impact factor of 376.132. His articles have been cited 5329 times with an average of 111.020 citations per article. He has an H-index of 31, has published 13 book chapters, has supervised 7 doctoral theses, 5 master's theses, 6 undergraduate final projects, and has supervised 21 student research stays. He has participated in more than 19 international projects, serving as independent principal investigator in 14 of them. He has also participated as an invited speaker in more than 100 international conferences.