

Dr. Stefanie K. Wculek

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Short biosketch

Stefanie Wculek (born in 1984) studied Molecular Biology at the University of Vienna with research stays in Austria, Canada and Spain. She completed her Master's thesis on the mechanisms of skin inflammation at the Spanish National Cancer Research Center (CNIO) in Madrid. In 2011, Stefanie moved to London to work on the role of neutrophils in cancer at the London Research Institute of Cancer Research UK/The Francis CRICK Institute and obtained her PhD from the University College London in 2016.

During her postdoctoral work at the Spanish National Center for Cardiovascular Research (CNIC) in Madrid, Stefanie further specialized on the biology and metabolism of innate immune cells in homeostasis and chronic diseases such as cancer and obesity. She developed an effective pre-clinical cancer immunotherapy based on dendritic cells as part of an international consortium of industrial, clinical and basic scientists. Moreover, Stefanie discovered metabolic differences of tissue macrophages that depend on their organ of residence, which leads to therapeutically exploitable vulnerabilities of those cells.

In February 2023, Stefanie joined the IRB Barcelona "Aging and Metabolism" research program as Junior Group Leader to head the Innate Immune Biology laboratory, which is supported by "LaCaixa", the Spanish Ministry of Science and Innovation, and an ERC starting grant (ERC-StG). Overall, her work established the surprising diversity of functions and dependencies of innate immune cells in vivo in health and non-infectious diseases. Currently, her team studies the biology and immunometabolism of dendritic cells, macrophages and neutrophils in aging, cancer and obesity to uncover novel therapeutic opportunities.