



Ignacio Marchante Hueso

After obtaining his degree in Physics in 2020 and a master's degree in Quantitative Biotechnology in 2021, Ignacio is currently pursuing his PhD in a co-tutelle programme between the University of Zaragoza and the University of Turin. He has collaborated with universities such as Chicago, Turin and Naples, where he was a visiting researcher in 2022. His career has involved working with experts in complex systems physics, genomics and medicine, which has boosted his interest in multidisciplinary research.



Researcher profile

He is a predoctoral researcher (R1 level), and his research focuses on how heterogeneity between individuals affects immune function and susceptibility to diseases with immune dysregulation. He studies factors such as genetics, age and sex, and develops computational methods to analyse large cohorts of genomic and proteomic data. His work aims to identify patterns that improve risk prediction and therapeutic strategies in complex diseases, such as infectious and autoimmune diseases.

Importance of his research

There are two main aspects to his work: the methodological and the applied. Regarding the former, he develops computational tools to analyse and integrate -omic data, which allows exploring new hypotheses in Computational Biology. As for the latter, the multidisciplinary research in which he participates helps to understand the cellular mechanisms involved in various diseases and how they vary between individuals, which is essential to develop personalised medical strategies that optimise treatments, such as in celiac disease or chronic stress.

