

Javier Barallobre-Barreiro

Javier Barallobre-Barreiro is Associate Professor at Imperial College London. His research focuses on understanding how the cardiac extracellular matrix (ECM) remodels in cardiovascular disease, with particular emphasis on protease activity, proteoglycan biology, and mechanisms of tissue fibrosis.

After completing his PhD at the University of A Coruña (Spain) in 2011, he joined King's College London as a postdoctoral researcher. He was awarded a Career Establishment Fellowship in 2016, followed by a British Heart Foundation Intermediate Basic Science Research Fellowship in 2019, supporting his work on extracellular proteases and proteoglycan remodelling in preclinical models of heart failure and clinical samples. He was promoted to Senior Lecturer at King's in 2023 and moved to Imperial College London as Associate Professor in May 2025.

Tissue fibrosis—characterised by ECM modification, accumulation, and dysregulated turnover—is a hallmark of most forms of cardiovascular disease. Javier and his team have investigated ECM remodelling across diverse patient cohorts, including individuals with ischaemic heart disease, dilated cardiomyopathy, and atrial fibrillation. His research integrates advanced proteomics in large clinical cohorts with studies in large animal models and bespoke transgenic mouse lines with targeted defects in ECM components. This combined approach provides mechanistic insight into how ECM remodelling drives cardiovascular pathology and highlights new opportunities for biomarker discovery and therapeutic intervention.