



NAME: **Gonzalez Carter, Daniel**

POSITION TITLE: **Senior Scientist, ‘Ramon y Cajal’ Research Fellow**

**EDUCATION/TRAINING**

University of Nottingham, UK	B.Sc.	07/2006	Biochemistry
King’s College, London, UK	M.Sc.	07/2007	Pharmacology
Imperial College, London, UK	Ph.D.	04/2013	Cellular Neuroscience
Imperial College, London, UK	Postdoc	2013-2017	Nano-bio interactions
Innovation Center of Nanomedicine, Japan	JSPS grantee	2017-2021	Brain-targeting drug-delivery nanomaterials
Institute for Bioengineering of Catalonia, Spain	‘La Caixa’ Junior Leader Research Fellow	2021-2024	BBB physiology
Institute for Bioengineering of Catalonia, Spain	Senior Scientist, ‘Ramon y Cajal’ Research Fellow	2024-2029	BBB physiology

**A. Contribution to science**

My research focuses on understanding the (patho)physiology of the blood-brain barrier (BBB) and exploiting this knowledge to design innovative strategies for the precision delivery of therapies against brain disorders. In particular, I aim to understand how the endocytic profile of brain endothelial cells impacts their function to drive the phenotypic specialization of the BBB, and uncover new molecular mechanisms of neurovascular dysfunction which contribute to the onset and progression of brain disorders.

In addition, I exploit our understanding of BBB endocytic specialization to design targeting strategies to deliver therapy-loaded nanoparticles to the brain. This aspect of my work has a strong translational focus, which has generated filed patents and attracted translational financial support to push the strategies towards commercialization.

**B. Professional membership**

1. Member of the Expert Evaluators Register of the Spanish National Research Agency
2. Member of the ‘College of Experts’ of the funding charity Parkinson’s UK
3. Expert reviewer for various funding programs of the ‘La Caixa’ Foundation

**C. International Conference Organization/Participation**

1. *Conference Co-Chair*: Barcelona Blood-Brain Barrier (B4) conference series. The B4 conference aims to provide a multi-disciplinary platform to advance the field of BBB research and its beneficial social impact. As such, B4 brings together scientists from

diverse fields, including cellular physiology, neuroscience, bioengineering, materials science and clinical practice to discuss the latest advances in fundamental physiological research, advanced modelling and imaging techniques to study the BBB, nanoparticle-mediated therapy delivery across the BBB, and clinical considerations to translate BBB research into a concrete clinical impact.

2. *Keynote speaker*: 2024 International Conference of the Taiwan Nanomedicine Society (June 2024; Taipei, Taiwan)
3. *Invited speaker*: 13th International Symposium on Polymer Therapeutics (May, 2022; Valencia, Spain)

#### **D. Publications**

[Full publications list](#)