



Carole BERRUYER, PhD, MCF, Aix-Marseille University

Innate Lymphoid cells

Dr Carole Berruyer has been MCF HC AMU (Maître de Conférences hors classe) since 2008.

Over the course of her career, C. Berruyer has deepened her expertise in the field of innate immunity. Her academic path began with the completion of her PhD in 2004 in the laboratory of Professor Philippe Naquet at the CIML (Centre d'Immunologie de Marseille Luminy). During this time, her research focused on elucidating the central role of an epithelial molecule called vanin in gut inflammation and the antioxidant response.

After her PhD, C. Berruyer took up her first postdoctoral position at the CRCM (Centre de recherche en cancérologie de Marseille) under the supervision of Patrice Dubreuil. In this role, she investigated the role of Nectin-4 and TACE in breast cancer. Her academic endeavors led her to take up a second post-doctoral position in the laboratory of Mina Bissell at the Lawrence Berkeley National Laboratory (LBNL). During this time, she devoted herself to researching the involvement of ephrins in mammary gland development and the development of breast cancer.

In 2008, C. Berruyer joined the laboratory of Michael Sieweke at the CIML to lead a mini-group specializing in "Macrophage proliferation and self-renewal".

In 2019, C. Berruyer joined the laboratory of Professor Eric Vivier at the CIML, where she is currently investigating the impact of innate lymphoid cells in the context of inflammatory and cancer pathologies.

Throughout her career, C. Berruyer has made a significant contribution to training and mentoring. She has supervised 2 PhD students, 3 Masters students and mentored 10 biology and bioinformatics engineers. C. Berruyer's involvement in education began in 2000 and her teaching spans various levels, from undergraduate to Masters, focusing primarily on immunology. Her pedagogical approach includes innovative techniques acquired in specialized pedagogical training courses set up by the AMU.

She currently directs the M1 Immunology Master's program and is responsible for several teaching units (TU), including a multi-site TU for basic immunology in L2, serving 120 students in Luminy, Saint Charles in Marseille and Aix-en-Provence. She also runs two TU courses in M1: "Fundamentals of Immunology", which is also shared with the Master's program in Health Management at the Timone Faculty of Medicine in Marseille, and "Flow Cytometry and Imaging Workshop" in M1. C. Berruyer has also been providing immunological training for private companies in the Marseille region since 2016. She has been an elected member of the UFR Sciences AMU board since 2022 and holds a position as an elected member of the university's teaching commission. She is also actively involved in the pedagogical commission responsible for selecting applicants for the Master's degree program in Immunology, which generally receives around 500 applications each year. She is also a permanent member of the examination board for M1 and M2 and participates in the selection process for the recruitment of future teachers for the immunology teaching team at AMU.