About our guest
Felipe Galvez-Cancino, PhD
Group Leader and Kidani Fellow
Center for Immuno-Oncology,
University of Oxford

Unlocking phagocytosis—a look at advanced cancer immunology

Season 3, Episode 19

Episode notes

In this inspiring episode, Dr. Felipe Gálvez-Cancino, group leader at Oxford's Center for Immuno-Oncology, walks us through his team's groundbreaking research on macrophages, T cells, and immune regulation in solid tumors. Tracing his path from early cancer vaccine work to advanced antibody-dependent cellular phagocytosis (ADCP), Felipe shares how his team is working to reprogram tumor-associated macrophages to more efficiently eliminate cancer cells.

He explains how regulatory CD4+ T cells suppress both T cell and macrophage responses within tumors and how removing that suppression can supercharge phagocytic function. We also hear how his lab is leveraging mouse models of hepatocellular carcinoma, clinical samples, and modern molecular biology techniques (like *in vivo* liver transfection and CRISPR-ready plasmid engineering) to study intratumor heterogeneity and antigen spreading.

Felipe also reflects on the value of early molecular biology training—like mastering gigapreps—and emphasizes the importance of curiosity, persistence, and collaboration in scientific careers. Whether you're interested in cancer biology, immunotherapy, or just passionate about translating discoveries into new therapies, this episode offers both technical depth and motivational insight.

Galvez-Cancino's recent publications

1. Galvez-Cancino F, Navarrete M, …, & Quezada SA. Regulatory T cell depletion promotes myeloid cell activation and glioblastoma response to anti-PD1 and tumor-targeting antibodies. Immunity. 2025 May 13;58(5):1236-1253.e8. doi: 10.1016/j.immuni.2025.03.021

2. Galvez-Cancino F, Simpson AP, Costoya C, Matos I, Qian D, Peggs KS, Litchfield K, Quezada SA. Fcγ receptors and immunomodulatory antibodies in cancer. Nat Rev Cancer. 2024 Jan;24(1):51-71. doi: 10.1038/s41568-023-00637-8

> "One of the key things I want to understand is the phagocytic landscape of tumors, of solid tumors. If you can solve phagocytosis, you can probably manipulate this and make these phagocytic cells that we found, these macrophages, eat the cancer cells, or eat the regulatory T cells, or maybe take this concept beyond cancer and apply it to other diseases."

To access this and other episodes, visit **thermofisher.com/molbiopodcast**