The Cancer Immunity Group officially started in January 2021 and the team is currently composed of a lab manager, 2 PhD students (one of them supported by the Fundación Cris Contra el Cancer and FPI Severo Ochoa Programme), and 1 computational Master’s student.

The main research areas of our Group are the following:

→ Innate immune cell training in breast cancer metastasis.
→ Macrophage-stroma modulation in lung cancer.
→ Circadian regulation of tumour immunology.

We expect that 2022 will be full of scientific discoveries and that we will consolidate our newly established Cancer Immunity laboratory at CNIO.

OVERVIEW

Myeloid cells are the major and most diverse component of solid tumours. In our laboratory, we are interested in identifying novel therapeutic targets to block the pathogenicity of tumour-associated myeloid cells, while preserving their homeostatic functions. In particular, we study the biology of macrophages, neutrophils, and their precursors to understand whether their unique plasticity can be reprogrammed to cure cancer.

Our laboratory tackles these challenges by analysing those cells in the tissue in which they reside, i.e., the tumour microenvironment (TME). As immune cells dynamically adapt and establish heterotypic interaction with other cellular components in the TME, we concentrate our efforts on capturing these interactions. By focusing on breast and lung cancer, and through close collaborations between our laboratory and the clinic, our goal is to discover novel therapeutic venues for cancer patients.