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Project Title **“The dual role of inflammation in cancer immunity”**

Group Leader Santiago Zelenay

Research Group Cancer Inflammation and Immunity

This 4-year PhD studentship will be based in our new world class research building next to the Christie NHS Foundation Trust, Withington, Manchester, UK.

Immunotherapies have transformed the landscape of cancer treatment across a wide range of malignancies. Responses, especially complete and durable ones, are nevertheless only observed in a limited fraction of patients. The development of these treatments builds on more than one hundred years of basic research in immunology. Under the premise that further fundamental research will provide insights into how to make immunotherapies more efficient, our group studies the underlying principles that determine the susceptibility of tumours to natural or therapy-driven cancer immunity. In doing so, we have uncovered key cellular and molecular inflammatory mediators whose targeting offers promising therapeutic avenues to enhance the efficacy of immune-based therapies (Bonavita et al *Immunity* 2020, Pelly et al *Cancer Discovery* 2021, Bell et al *Nature communications* 2022).

The aim of this PhD project will be to examine how these mediators and their targeting regulate the tumour inflammatory landscape and impact cancer immunity. The overarching goal is to identify translatable therapeutic strategies to manipulate intratumoural inflammation and improve the efficacy of cancer treatments that rely on the tumour-restraining function of the immune system.

We welcome applications from individuals with a strong academic track record with previous laboratory research experience.