



POST-DOCTORAL RESEARCH ASSOCIATE in CANCER BIOLOGY

The post is funded by a **CRUK Multidisciplinary Award** and is tenable from **1st June 2023 for 3 years**. The successful applicant will be based in Prof. Papalopulu's lab and will be co-supervised by a Cancer Biologist (Prof. Robert Clarke at the Manchester Breast Cancer Centre). The successful applicant will be part of a **multidisciplinary team** and will work alongside a mathematician PDRA, supervised by a Data/Computational Scientist (Prof. Magnus Rattray).

The project and the groups

The specific aim of the project is to apply a dynamical systems framework to understand cancer cell plasticity in the context of Breast Cancer. This is the process whereby cells dynamically and reversibly switch states, giving rise to non-genetic heterogeneity in a tumour. Cancer cell plasticity has been identified by CRUK as one of nine Cancer Grand Challenges. By studying the control of cell-state transitions, we aim to understand how cells switch states, what are the implications for the emergence of therapy resistant/quiescent cells and how we can control plasticity. Our approaches involve both fixed single-cell absolute quantitation of mRNA and protein, as well as live imaging of dynamic gene expression at the single-cell level, generated by CRISPR/Cas9 knock-in reporters and organoid cancer models.

Cell state-transitions are important for normal development but are deregulated in cancer, therefore, we welcome applicants from the fields of **Developmental** and/or **Stem Cell Biology**, who wish to move to **Cancer Biology**. We have an excellent track record of promoting careers of post-doctoral associates in academia and related sectors.

Further information on the participating groups can be found here:

<https://papalopululab.wordpress.com/>

<http://www.breastcentre.manchester.ac.uk/Research-Groups/Rob-Clarke>

<https://research.manchester.ac.uk/en/persons/magnus.rattray>

Candidates must hold, or expect to shortly, a PhD in a Biological discipline. For further information on **person specification** and **how to apply on line** please refer to <https://www.jobs.manchester.ac.uk/displayjob.aspx?jobid=24720>

The University of Manchester

The University of Manchester is the largest single-site UK university and the 6th best University in the UK, according to the Academic Ranking of World Universities. In the 2021 Research Excellence Framework (REF) an impressive 93% of our research activity was rated 'world-leading' (4*) or 'internationally excellent' (3*), confirming Manchester as one of the UK's top research institutions. We are committed to expanding our world-leading research, and exploiting our capability for interdisciplinary research.

Living in Manchester

Manchester is a vibrant and cosmopolitan city in the Northwest that has undergone major modernisation and revitalisation over the last 25 years. It offers affordable urban living with great transport links, and is a stone's throw away from stunning countryside including 4 National Parks, which is very important for one's work-life balance. It is served by a very well connected and accessible international airport, just 20 minutes from the city.