

Project Title	“Making use of protein degraders as a novel approach to treat blood cancer”
Group Leader	Tim Somerville
Research Group	Leukaemia Biology

This 4-year PhD studentship will be based at the Cancer Research UK Manchester Institute, New Paterson Building, Withington, Manchester, UK

While there has been substantial progress in the treatment of blood cancers, there remains so much more to do. Many of our patients continue to present with incurable disease and so there is a substantial unmet need for better and less toxic therapies. This PhD project, based in Manchester at the Cancer Research UK Manchester Institute, will run jointly with colleagues at Dark Blue Therapeutics, a biotech company based in Oxford.

The goal will be to evaluate the functional consequences and mechanistic basis of a new drug currently in development which blocks a critical protein involved in the transformation of normal stem and progenitor cells into leukaemia cells. To assess the potential activity of this drug, as the lead on this project you will perform *in vitro* cell growth assays of primary patient leukaemia cells collected direct from patients being treated with chemotherapy at The Christie NHS Foundation Trust. We share the same location as this hospital which is the largest single centre cancer hospital in Europe. You will also learn and develop *in vivo* assays to assess the consequences of drug treatment on patient cells in an *in vivo* mammalian model, as well as a wealth of cutting-edge molecular biology techniques appropriate to the project.

This work builds on our recent experience and publications with new drugs which target proteins associated with chromatin (see for example Nicosia et al., 2023, Cancer Cell (EP300/CBP); Harris et al., 2012, Cancer Cell (LSD1); and O’Brien Laramy et al., 2023, Nature Reviews Drug Discovery) and sits at the leading edge of drug discovery and development in blood cancer.

We are looking for a hard-working, enthusiastic, and ambitious person to join our friendly and interactive team. We would welcome applications from individuals with a strong academic track record and Masters-level and/or other laboratory research experience in leukaemia or cancer biology. Applicants should hold or expected to graduate with a first or minimum upper-second class undergraduate honours degree (or equivalent from a non-UK university) as part of a university degree course.

University of Manchester entry: September 2024