

Progress report for Penguins Against Cancer

August 2022

The Fergus Scholefield Cancer Research Grant

We remain very grateful for the award of £5,000 from Penguins Against Cancer in 2021 to support Dr Matthew Clarke's study looking at methylation profiling of diffuse glioma in the teenage and young adult population. A brief update on progress is below.

Update

I am very pleased to tell you that the project continues to progress well. Dr Clarke and the team now have a cohort of 178 cases of high-grade gliomas from teenagers and young adult patients aged 13-30 years, as a result of the valued contributions from their international and national collaborators.

The researchers have extracted DNA from all these samples, and they have all undergone DNA methylation profiling. They have used the Heidelberg Brain Tumour Classifier to classify them according to known tumour subgroups. Approximately a third of these cases classify as one of the existing tumour subgroups for which we already know a significant amount, which is not an unexpected finding. However, what is very interesting is that the remaining two thirds classify as either a novel high-grade glioma subgroup (which relatively little is currently known about), or they do not classify at this stage.

Both of these outcomes represent a significant opportunity to understand more about them and the researchers are currently using different molecular tests to do this. So far, they have implemented the ArcherDx Fusion Panel in the lab and all these cases are currently being sequenced using this panel to identify any characteristic fusions, some of which may be targetable with different drugs.

In parallel, the researchers are also looking in more detail at the background genetic material of these cases to identify other types of genetic changes which may be present in these tumours. They have established several patient-derived cell cultures where they are growing tumour cells from patients in this age-group, allowing potential opportunities for testing their sensitivity to different drugs.

We would again like to extend our thanks to Penguins Against Cancer for their generous support. The grant has paid for 20 of the methylation arrays that the researchers have done for this cohort. This step is vital in helping us to understand the molecular profiles of these tumours and we are very grateful for your support of our work.

For further information please contact:

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