Developing novel brain imaging approaches to investigate the neural basis of premonitory urges in Tourette Syndrome

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Awarded £16,500

During 2019

(This grant was originally awarded in 2019 but the duration of the grant was subsequently extended to 2022 due to face-to-face research being suspended during 2020 – 2021 due to Covid-19).

SUMMARY

A significant advance, made possible by this TA funding, has been to clearly establish the feasibility and proof-of-concept of the SPFM approach which allows us to reliably identify spontaneous brain events that are not manifest as directly observable behaviour (e.g., premonitory urges in TS). This demonstration allowed us to secure major funding (£527,721) from the UK Medical Research Council to continue and extend this project.

The research referred to in this report is ongoing.

We continue to use multimodal brain imaging methods to understand the pathophysiology of TS, including investigating alterations in brain network dynamics that give rise to the occurrence of tics and the experience of the urge-to-tic.

The early and continued funding that we have received from Tourettes Action was critical in kick-starting our research on this topic. While it is the case that we subsequently secured a larger grant to continue and develop this research, the initial pilot work that supported our successful MRC grant application were made possible by the funding that we received from Tourettes Action.