Lay Summary

BRAIN UK Ref: 19/008

C1q in Huntington's disease

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Huntington's disease is a devastating genetic progressive brain condition with no cure, that affects people in their young adult life who develop uncontrolled movements, emotional and thinking problems. A key feature in Huntington's disease as in many other brain diseases is inflammation. A product of inflammation is C1q which triggers a cascade of events that harm the brain. We want to test whether a new compound (antibody) that is developed against C1q is specific to the C1q in Huntington's disease human brains. Annexon Biosciences is a company that has developed the compounds that target C1q that seem to have favourable effects in other neurological conditions. We propose to compare the Annexon compounds against commercially available markers of C1q in a very small set of 3 Huntington's disease brains. If the results appear meaningful, we will increase the size in a future study with statistical power and we will also complement with other experimental methods in the lab. Long term, the aim is to develop the antibodies against C1q produced by Annexon, to ameliorate/slow down the progression of Huntington's disease.