

## **Lay Summary**

**BRAIN UK Ref: 12/002**

### **Neuropathology of autoimmune/limbic encephalitis associated with antibodies against voltage-gated potassium channels**

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Autoimmune encephalitis is a relatively uncommon disorder typically associated with an underlying cancer. A number of sub-types have been described associated with molecules called antibodies directing inappropriate immune responses against cellular targets within the body. One particular sub-type involves an autoimmune response against molecules in cells specific for potassium ions that are sensitive to voltage changes and are important in the normal conduction of nerve impulses.

This study will examine cases of autoimmune encephalitis where antibodies against voltage-gated potassium channels are demonstrated and compare them to other cases of autoimmune encephalitis. Analysis will involve the description of microscopic pathological changes in different areas of the brain with particular reference to the intensity of the immune response which will be assessed with the use of specific staining techniques.