

## Lay Summary

**BRAIN UK Ref: 12/003**

**Neuropathological examination of neurons, glial cells, axons and molecular factors in mood and affective disorders**

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The microscopic pathological examination of brain tissue in psychiatric disorders such as schizophrenia, depression and bipolar disorders has historically been difficult to interpret. However, recent advances in specific staining techniques and corresponding image analysis have permitted a better insight into the biological and functional changes underlying these disorders. With this improvement in knowledge it may be possible to better explain clinical symptoms, identify targets for novel therapeutic intervention or to minimise side-effects to established treatments.

This study will examine affected brain tissue with reference to healthy controls using a variety of specific staining techniques to demonstrate elements of the central nervous system. Staining will be assessed using image analysis in order to quantify difference between different diagnostic groups.

### Publications:

Date	Publication title
2013	<a href="#">Midbrain Dopamine Function in Schizophrenia and Depression: A Post-Mortem and Positron Emission Tomographic Imaging Study</a>
2014	<a href="#">Neuropathological Changes in the Substantia Nigra in Schizophrenia but Not Depression</a>
2014	<a href="#">Fibrillary Astrocytes are Decreased in the Subgenual Cingulate in Schizophrenia</a>
2015	<a href="#">Axonal Myelin Increase in the Callosal Genu in Depression but Not Schizophrenia</a>