**Lay Summary**

**BRAIN UK Ref: 11/006**

**Comparative study of the neuropathology in Huntington's disease brains**

**Prof. S B Dunnett, Cardiff University**

Huntington's disease is a genetic disease characterized by progressive motor, cognitive and psychiatric impairment typically manifesting during mid-life. The scale of the defect to the affected gene correlates to the loss of brain cells and therefore to disease severity and age of onset. Cellular loss is particularly evident in an area of the brain called the striatum and this is semi-quantitatively classified using the Vonsattel grading system. However, as HD progresses other areas of the brain are affected by the disease process and there is a sparsity of current information regarding the progression of HD in these areas.

This study aims to use HD brain tissue which has been stratified according to Vonsattel grade with matched controls. Staining methods will be used to determine the spread of HD neuropathology throughout the brain, quantify the degree of genetic damage and determine the processes underlying cell death in HD.