

Clinical MR Imaging

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Title of project or programme

Clinical MR Imaging

Principal Investigators of project/programme grant

Title	Forname	Surname	Institution	Country
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Address of institution of lead PI

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Country

- United Kingdom

Source of funding information

Medical Research Council

Total sum awarded (Euro)

614982.43

Start date of award

01-04-2008

Total duration of award in months

24

The project/programme is most relevant to

- Alzheimer's disease and other dementias

Keywords

Molecular imaging, Biochemistry, Magnetic resonance, Spectroscopy

Research abstract in English

Neuropsychiatry: A grey scale based technique is used for precise registration of serial magnetic resonance images of the brain in order to detect small differences. These can be quantified. It provides objective measures of disease progression and response to treatment. For example, the rate

of increase in ventricular size is about five times greater than normal in Alzheimer's disease. A parallel study is being conducted with the MRC Cyclotron Unit to ascertain the effects of radiotherapy and Temozolamide.

The technique provides an objective method for studying disease progression as well as studying the effectiveness of treatment. It allows new treatments to be evaluated with fewer patients.

Lay summary

The work is based on a technique which detects small changes to the brain on repeat examinations. It is used to detect the natural history of a wide range of diseases of the brain as well as response to treatment. This includes multiple sclerosis, meningiomas, gliomas and Alzheimer's disease as well as effects due to cardiac and internal carotid artery surgery.