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Development of novel magnetic resonance imaging (MRI) techniques for neurological applications

Submission date	Recruitment status	[ ] Prospectively registered
21/05/2010	No longer recruiting	[ ] Protocol
Registration date	**Overall study status**	[ ] Statistical analysis plan
21/05/2010	Completed	[ ] Results
Last Edited	**Condition category**	[ ] Individual participant data
08/08/2016	Nervous System Diseases	[ ] Record updated in last year

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
5580

Study information

Scientific Title

Development of novel magnetic resonance imaging (MRI) techniques for neurological applications

Study objectives
Quantitative magnetic resonance imaging (MRI) techniques may provide additional information in the understanding of several neurological and psychiatric disorders. The development of some of these techniques is still incomplete and the interpretation of results in pathology is thus limited. Scanning healthy subjects and analysing their data will help in making the scanning techniques suitable for clinical applications. This is an ongoing process of continual testing and optimisation.

Ethics approval required
Old ethics approval format

Ethics approval(s)
MREC, ref: 05/Q0502/101

Study design
Single-centre non-randomised observational diagnosis and screening study

Primary study design
Observational

Study type(s)
Screening

Health condition(s) or problem(s) studied
Topic: Neurological; Subtopic: Neurological (all Subtopics); Disease: Nervous system disorders

Interventions
Routine MRI examinations only provide qualitative images of the brain. Quantitative MRI techniques, such as MR spectroscopy (MRS), magnetisation transfer imaging (MTI), diffusion imaging (DI), perfusion imaging (PI) and relaxometry can be particularly useful in the investigation of the pathological substrate of several diseases. Their usefulness is well documented in the literature; however, their application is somehow limited by technical problems.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
1. Magnetic resonance imaging (MRI)
2. MR spectroscopy (MRS)
3. Magnetisation transfer imaging (MTI)
4. Diffusion imaging (DI)
5. Perfusion imaging (PI)

Key secondary outcome(s))
Not provided at time of registration

Completion date
31/07/2009

Eligibility

Key inclusion criteria
Not provided at time of registration

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Not Specified

Sex
Not Specified

Key exclusion criteria
Not provided at time of registration

Date of first enrolment
01/01/2006

Date of final enrolment
31/07/2009

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
The Institute of Neurology
London
United Kingdom
WC1N 3BG

Sponsor information

Organisation
University College London (UCL) (UK)

ROR
https://ror.org/02jx3x895

Funder(s)

Funder type
Charity

Funder Name
Multiple Sclerosis Society (UK)

Alternative Name(s)
mssocietyuk, MS Society UK, Multiple Sclerosis Society UK, Multiple Sclerosis Society of Great Britain and Northern Ireland, The MS Society, MS Society

Funding Body Type
Private sector organisation

Funding Body Subtype
Associations and societies (private and public)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes