ETHICS COMMITTEE FORM

The second step consists in filling up the information about your proposal.

You will need to make sure that you have read the BPS code of conduct before filling up the following boxes. Please read all the questions first, as all the fields are required to submit your proposal.

1. DESCRIBE THE BASIC PURPOSES OF THE PROPOSED RESEARCH

This proposal describes "standard MEG studies" as we propose to conduct them in CCNi. The term "standard MEG studies" used throughout this document refers to studies conducted in normal adult volunteers, for which brain activity is recorded while the volunteer performs cognitive/motor tasks.

Each new study falling into the "standard MEG studies" category will require its own ethics approval, but the proposal will refer to the present document to ease the submission and review process.

Studies not falling into the "standard MEG studies" category, for example, because they involve children, clinical patients, or stimulation of a deceitful or painful nature, will require submission to the Ethics Board with full details.

Magnetoencephalography (MEG) is a completely non-invasive functional imaging technique. Neural activity in human brains is associated with tiny magnetic fields that are recorded outside the human head by means of a large number of highly sensitive sensors. MEG will be used to record, localize and characterise the highly dynamic neural activity of the brain in a large variety of cognitive tasks. The main strength of MEG that will be exploited in future studies lies in the high temporal and good spatial resolution of the recorded signals.

2. INDICATE WHO IS FUNDING THE RESEARCH (IF COMMERCIALLY FUNDED, ENSURE THAT PARTICIPANTS ARE INFORMED)

The experiments carried out in the MEG will be funded by various research councils and funding bodies.

3. DESCRIBE THE DESIGN OF YOUR EXPERIMENT (E.G. CONDITIONS, NUMBER OF PARTICIPANTS, PROCEDURE AND EQUIPMENT WHERE APPROPRIATE) see BPS 2 & 8

First, the participant will be informed about the study. During the MEG measurement, the participant is sitting in a magnetically shielded room with the head supported against the helmet shaped bottom of the magnetometer, holding 248 sensors. Before the measurements, four small coils are taped on the skin and a digitiser is used to measure the location of these coils with respect to specific points on the head. Small currents will be passed through the coils once the participant is in the instrument; this will allow us to position each coil with respect to the sensors and to align the MEG and MRI coordinate systems. These currents are entirely outside the subjects' body

and he/she will not feel them. If participants have magnetic material in their body (for example, in your dental work), then we may try to de-magnetise it using an instrument that we will hold above the skin.

The participant will be asked to sit still during the entire measurement, since movements will interfere with getting accurate data. Individual recordings will not last longer than 20 minutes. If several sequential recordings are required enough time for breaks will be allowed. Participants will be encouraged to take breaks throughout and to perform the experiment at their own pace. During a typical recording, participants will be asked to make responses to stimuli (visual, auditory, somatosensory or a combination). We will inform all participants that they may discontinue participating in the experiment at any time. A standard MEG experiment will require around 20 participants, who are likely to be undergraduates from the University of Glasgow.

4. DESCRIBE HOW THE PROCEDURES AFFECT THE PARTICIPANTS

The measurement itself is completely non-invasive. Some participants may feel uncomfortable to sit still during the recording. This may lead to hardening of back or neck muscles. No other adverse effects are known from MEG experiments.

5. STATE WHAT IN YOUR OPINION ARE THE ETHICAL ISSUES INVOLVED IN THE PROPOSAL (see BPS All Sections)

No ethical issues are involved in a typical MEG experiment.

6. SPECIFY THE NATURE OF THE PARTICIPANTS. INDICATE IF THE RESEARCH INVOLVES CHILDREN OR THOSE WITH MENTAL DISABILITIES OR HANDICAP (see BPS 3) IF SO, EXPLAIN THE STEPS TAKEN TO OBTAIN PERMISSION FROM L.E.A.S, HEADTEACHERS, PARENTS, ETC...

Participants of MEG studies will be healthy, adult people.

7. STATE IF PAYMENT WILL BE MADE TO SUBJECT

A standard payment of £6 per hour will be made to subjects.

8. DESCRIBE THE PROCEDURES FOR ADVERTISING, FOR RECRUITING PARTICIPANTS, AND FOR OBTAINING CONSENT FROM PARTICIPANTS (See BPS 3)

Participants will be recruited by adverts detailing the purpose and duration of the experiment. Written informed consent will be obtained from participants prior to the study.

9. STATE WHETHER THE PROPOSAL IS IN ACCORD WITH THE BPS CODE OF CONDUCT (see BPS All Sections)

MEG experiments will be in accord with the BPS code of conduct.

10. DESCRIBE HOW THE PARTICIPANTS' ANONYMITY AND CONFIDENTIALITY WILL BE MAINTAINED (see BPS 7)

Participants anonymity will be assured by only referring to subject numbers during analysis. Records of personal details will only be kept if subjects agree (for example to contact them for other studies).

11. DATE ON WHICH PROJECT WILL BEGIN

MEG recordings will start after March, 1st, 2008.

- **12.** LOCATION AT WHICH THE PROJECT WILL BE CARRIED OUT All the recordings will be carried out in the Laboratory for Magnetoencephalography in the CCNi.
- 13. DESCRIBE HOW PARTICIPANTS WILL BE DEBRIEFED AT THE END OF THE EXPERIMENT (THIS MUST INCLUDE THE OPPORTUNITY TO CONTACT THE EXPERIMENTER OR SUPERVISOR FOR FEEDBACK ON THE GENERAL OUTCOME OF THE EXPERIMENT) (see BPS 5 & 10)

After the experiment participants will be briefed about the purpose of the research and will be given contact details of the investigator (for further questions and concerns). If they are interested, they will be given a more detailed description of the experiment and its aims.

14. ATTACH PARTICIPANT INFORMATION FORM AND CONSENT FORM (see BPS 3 & 6) As part of the automated process, these files are required in order to proceed. If you do not have one of these files, submit an empty text file and sort the matter with the ethics committee. (Please make sure that the files you are submitting can be readable by the members of the committee. Do not send compressed files as these are OS dependent. Best file formats are MSWord or plain text)

INFORMATION FORM