Information Sheet

Short-term sensory plasticity in controls and velocardiofacial syndrome (VCFS) volunteers

What is this study about?

The goal of this study is to understand how the brain processes sensory information and **how this process is affected by differences in genetic makeup** in people with and without a clinical diagnosis.

Since we can't pay attention to everything happening in the world at one time, the brain's ability to ignore unimportant changes in the environment while closely paying attention to other changes makes it possible for us to filter our attention and better go about the day. We are interested in how brain responds to changes in visual (sight), auditory (hearing), and tactile (touch) information. This study will also help us make links between brain activity and a person's genetic features.

What will I have to do?

This study involves examining your brain activity in response to changing sensory stimulation. **This will involve a one-off testing session lasting approximately 3-4 hours maximum.**

As a participant in this experiment you will see pictures on a computer screen, hear sounds coming from speakers, or feel a slight vibration from device attached to a bracelet you will be asked to wear. Sometimes you will be asked to click a mouse button in response to these events and sometimes you will just watch a movie of your choice while these events happen.

In order to look at how the brain adapts to changes in the environment, we use **EEG**. The EEG is **a recording of the brain's electrical activity** and event-related potentials (ERPs) are the electrical activity in response to specific stimulation (like sounds, pictures, tactile vibrations). This brain activity is recorded with an EEG cap that is placed on the head.

In addition, you will be asked for a **saliva sample**. We will test this sample for genetic changes that may relate to how the brain processes sensory information.

Lastly, you will be asked to complete **a series of online questionnaires** asking about experiences, thoughts, and feelings you may have had.

What will happen to my data afterwards?

The results of each individual's participation will be **strictly confidential or anonymous** and will be kept in a locked cabinet in the Psychology Department. The results of your participation in the **EEG and behavioural tasks will be documented by subject number only,** while the **saliva sample we take will be totally anonymous**. No names or individual identifying information will be recorded. With the exception of the researcher(s) involved in running this study, nobody will be allowed to see or discuss any of the individual responses. Your responses will be combined with many others and reported in group form in a scientific paper, but your own data will be available to you at your discretion.

You may withdraw from the study at any time, and **you may withdraw your data** up until the work is published. Please note that this applies to your EEG and behavioural data only – because your saliva sample will be anonymised, it will not be possible to withdraw these data.

It must be recognized that, in some circumstances, confidentiality of research data and records may be overridden by courts in the event of litigation or in the course of investigation by lawful authority. In such circumstances **the University will take all reasonable steps** within law to ensure that confidentiality is maintained to the greatest possible extent.

Are there any risks?

No. EEG is based upon the detection from the scalp of the electrical signals generated when brain cells communicate with each other. These electrical signals can be recorded from the scalp by metal electrodes placed at different locations on the head. This is a **safe, pain-free and non-invasive** method of recording electrical brain activity. You will be tested for allergic skin reactions to EEG gel prior to testing;if you are allergic to the gel, you won't be asked to participate further.

This technique does not involve the use of x-rays (as does CT scanning), radio-isotopes (as does PET scanning), magnetic fields (as do TMS, MRI and fMRI), near-infrared light sources (as does NIRS) or any invasive brain procedures. Rather, this is a passive recording technique and as such should be considered similar to the taking of heart-rate or blood-pressure measures.

In the unlikely event that you experience any distress, discomfort or other negative experience as a result of participating in this study, you should contact the Student Counseling Service (708 3554) or Student Health Service (708 3878; both on campus and located very close to the Psychology Department) or contact your own GP.

This research project has been approved by the Maynooth University Ethics Committee.

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If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process please contact the Secretary of the National University of Ireland Maynooth Ethics Committee at pgdean@nuim.ie of 01 708 6018. Please be assured that you concerns will be dealt with in a sensitive manner.