





# **VOLUNTEERS NEEDED**

### FOR MAGNETIC RESONANCE ULTRASOUND STIMULATION STUDY OF THE BRAIN

## Ultrasound brain stimulation in emotion and decision making



#### What are we studying?

We are interested in understanding how specific brain circuits influence emotion processing and decision making. This will ultimately help us better understand mental health disorders which can affect the same circuits. To study this, we combine magnetic resonance imaging (MRI) with transcranial ultrasonic stimulation (TUS), a non-invasive brain stimulation technique which can reach deep brain structures using ultrasound waves.

#### What is required?

The study involves four visits. During each visit, you would be asked to lie still in an MRI scanner. During the 2nd, 3rd and 4th visit, we would deliver ultrasound stimulation before you enter the scanner, and you would perform a simple computer task in the scanner. The first visit takes about 1 hour, and the three subsequent visits take approximately 3 hours, of which about 1.5 hours will be spent in the MRI scanner. You will receive compensation for taking part.

**Who are we looking for?** Healthy fluent English-speaking right-handed men or women aged 18-40 years who are not pregnant and who have normal or corrected to normal vision. You will be contacted beforehand to check your eligibility (including questions about your medical history) for undergoing MRI scanning and neurostimulation.

#### Are there any risks?

Ultrasound is a non-invasive form of brain stimulation. We are using a stimulation protocol that follows current guidelines and which has been used safely in other studies. TUS effects last for about an hour and are completely reversible. MRI is safe and non-invasive. You will be fully screened before any procedures to ensure you are suitable to take part.

If you are interested, please contact Miriam Klein-Flügge (miriam.klein-flugge@psy.ox.ac.uk) or Miruna Rascu (miruna.rascu@psy.ox.ac.uk) for more details.

Thank you for your time!