Full-time | Fixed-term (24 months)

Starting: 1 June 2026 (or as soon as possible thereafter)

We are seeking a **skilled and highly motivated Post-Doctoral Research Fellow** to join the laboratory of **Professor Elsa Fouragnan** at the **University of Plymouth**. This ARIA-funded project explores an exciting proof of principle: whether **Ultrasound Stimulation (transcranial or otherwise)** can be used safely to both **image and regulate mood states** in a closed-loop system. The study will involve healthy volunteers and patients with a history of brain injury, using cutting-edge neuroimaging methods including **functional MRI (fMRI)**, **functional Ultrasound Imaging (fUSi)** and **computational modelling** of emotion-related behaviours.

This is an exceptional opportunity to develop your research portfolio within a team of internationally recognised leaders at the intersection of neuroscience, neuromodulation, neuroimaging, and computational modelling.

About the Role

You will be based between the **Brain Research Imaging Centre (BRIC)** at the University of Plymouth and **Queen's Hospital, Romford (London)**. BRIC houses state-of-the-art facilities, including:

- A **3T Prisma MRI scanner**
- Multiple human research laboratories
- Two neurostimulation labs (TUS, TMS)
- MR-compatible TUS and EEG systems

The role will require **regular travel to London** to support experimental setup in a clinical environment, with potential opportunities for **transatlantic collaboration and travel** through our partnership with **Forest Neurotech (now Merge Labs)** in the USA.

You will lead the design, execution, and analysis of a multimodal neuroimaging and ultrasound stimulation experiment, investigating TUS parameters and mood-related brain networks. You will also be responsible for disseminating results through **publications and conference presentations**.

Supervision & Collaborators

- **Professor Elsa Fouragnan**, University of Plymouth
- **Dr Aimun Jamjoom**, Neurosurgeon & Clinician Scientist, Barking, Havering and Redbridge University Hospitals NHS Trust
- Collaborators at **Forest Neurotech / Merge Labs (USA)**, including **Dr Sumner Norman** and **Dr Tyson Aflal**

Interviews are scheduled for May 2026.

Essential Requirements

Qualifications

- PhD (or equivalent international qualification) in **neuroscience, physiology, biology**, or a related field.

Research Experience & Technical Skills

You must have:

- Experience in **task programming** and **neuroimaging data analysis**, including fMRI collection and analysis.
- Experience with **multivariate analysis methods**.
- Proficiency in **programming** (any language).
- A strong research track record including publications and presentations.

Communication & Collaboration

- Excellent written, verbal, and presentation skills.
- Proven ability to work independently and collaboratively within interdisciplinary teams.
- Ability to build productive working relationships with internal and external partners.

Professional Attributes

- Strong organisational and project management skills.
- Intellectual agility and strong problem-solving abilities.
- Experience mentoring or supporting junior researchers.
- Willingness to travel to London as needed.

Desirable

- Knowledge of cognitive neuroscience, particularly relating to mood.

Please note: Due to the nature of the work, **remote working cannot be supported**.

For an informal discussion, please contact **Professor Elsa Fouragnan**: elsa.fouragnan@plymouth.ac.uk

Applications sent to this email will not be considered.