

# JOB DESCRIPTION

<b>Vacancy reference:</b>	33076/AS/SPCLS/20200629
<b>Post Title:</b>	Postdoctoral Research Associate
<b>Grade:</b>	Grade 6
<b>School/Department:</b>	SPCLS
<b>Reports to:</b>	Prof Bhisimadev Chakrabarti
<b>Responsible for:</b>	any members of staff this person line manages

## Purpose

This is a post-doctoral research role in a project investigating the links between gut microbiota and brain and behaviour. The project is funded by a five year ERC Consolidator grant.

The postholder will be a key member of the project team based at the University of Reading.

The aim of this project is to test how different populations of gut bacteria influence upon brain function and behaviour in humans. Brain function and behaviour will be measured using a range of techniques including Magnetic Resonance Imaging (fMRI), Magnetic Resonance Spectroscopy (MRS), and psychophysics.

## Main duties and responsibilities

The postholder will contribute to the brain and behavioural aspects of the research programme. The duties would include the following.

Research:

- Contribute to study design
- Recruit and test participants on the brain and behavioural battery of measures
- Conduct pilot tests on all brain and behavioural measures
- Analyse data
- Use initiative and creativity to synthesise, analyse and interpret research data
- Contribute to writing of papers for publication in academic journals
- Disseminate research findings through participation in appropriate conferences
- Train junior researchers
- Contribute to writing proposals for research grants
- Collaborate with colleagues within the University in the development of original research

Enterprise & Outreach:

- Coordinate research with relevant members of the project team
- Contribute to writing and presenting project reports

Leadership & Management:

- May supervise the work of junior researchers
- May participate in School promotion and recruitment initiatives such as Open Days and Visit Days
- Undertake project-related administration such as organising regular project meetings, departmental presentations or seminars

### **Supervision received**

The project presents a significant hands-on opportunity to learn about the emerging field of gut-brain interactions in humans, and multiple relevant techniques. The appointed individual will receive strong mentoring from Professors Bhismadev Chakrabarti, Glenn Gibson, and other members of the team and be supported in developing new ideas.

### **Supervision given**

The postholder will be expected to supervise junior researchers as and when required. Subject to interest and availability of opportunities, the postholder can be provided with opportunities to contribute to teaching and learning activities at the School.

### **Contact**

The postholder will have regular contact with all project team members and collaborators.

### **Terms and conditions**

The role is a full-time fixed-term contract for up to 36 months, with the possibility of further extension. Some weekend working might be necessary depending on the nature of the task and deadlines.

There are no specified hours of work, but you will be required to work such hours as are necessary to carry out the duties associated with the post. Overtime is not payable.

This document outlines the duties required for the time being of the post to indicate the level of responsibility. It is not a comprehensive or exhaustive list and the line manager may vary duties from time to time which do not change the general character of the job or the level of responsibility entailed.

**Date assessed: 02/11/2020**

# PERSON SPECIFICATION

Job Title	School/Department
Postdoctoral Research Associate	PCLS

Criteria	Essential	Desirable
<b>Skills Required</b>	<ul style="list-style-type: none"> <li>• Designing &amp; running experiments in humans using:               <ul style="list-style-type: none"> <li>○ Magnetic Resonance Imaging</li> <li>○ Psychophysics</li> </ul> </li> <li>• Analysing data from techniques mentioned above using appropriate statistical models</li> <li>• Ability to work to deadlines</li> <li>• Writing papers for publication</li> <li>• Excellent analytical and problem-solving skills</li> <li>• Ability to communicate effectively, both orally and in writing</li> <li>• Ability to work both independently and as a member of a team</li> <li>• Excellent organisational skills</li> </ul>	<ul style="list-style-type: none"> <li>• Prior experience in resting state fMRI analysis</li> <li>• Prior experience in MRS</li> <li>• Project management &amp; coordination with multiple team members</li> <li>• Writing grant applications</li> <li>• Experience in advanced statistical modelling of large datasets</li> </ul>
<b>Attainment</b>	<ul style="list-style-type: none"> <li>• PhD in a relevant discipline (neuroscience, psychology)</li> <li>• A good honours degree in relevant subject</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of peer-reviewed publications on relevant topics</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Knowledge of principles of MRI and MRS, as well as psychophysics</li> <li>• Experiment design</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness of the gut-brain axis</li> <li>• Clinical trial data analysis</li> </ul>

<p><b>Relevant Experience</b></p>	<ul style="list-style-type: none"> <li>• Experience of conducting human neuroscience research using techniques mentioned above</li> <li>• Experience in recruiting participants</li> <li>• Experience in writing ethics applications for human studies</li> <li>• Writing papers and publishing them within an acceptable timeline</li> <li>• Experience of managing a project with multiple investigators</li> <li>• Experience of building and maintaining external contacts/partners in order to drive mutual interests</li> </ul>	<ul style="list-style-type: none"> <li>• Writing grant applications</li> <li>• Postdoctoral experience in a relevant topic</li> </ul>
<p><b>Disposition</b></p>	<ul style="list-style-type: none"> <li>• Ability to work in a team</li> <li>• Willingness to learn new techniques and apply them to novel problems</li> </ul>	<ul style="list-style-type: none"> <li>• Interest in developing experiments related to the current project aims and go beyond the remit of the project.</li> </ul>

Completed by: Bhisimadev Chakrabarti	Date: 30/10/2020
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