### Title:
Psychology Demonstrator PhD Studentships

Please choose your preferred project out of the following 4 options, and then rank the other projects in the order you would like to apply for.

### To start:
1 October 2020

### Awards and eligibility
2 fully funded 4-year IoPPN/MRC PhD studentships

The demonstrator studentship lasts for 4 years. Successful applicants will be registered for a PhD for 4 years, with fees fully funded by the faculty for Home/EU applicants. Overseas applicants would have to self-fund the difference. Demonstrator students will receive a stipend for the full four years, equivalent to the RCUK stipend for postgraduate research students.

We are looking for graduates with an interest in carrying out a research PhD under the supervision of members of the core undergraduate team, combined with a teaching development role, which assists with the running of the undergraduate Psychology degree at King’s.

In addition to meeting the requirements of a PhD research student, demonstrators will spend 20% of their time each year on personal development as a teaching academic (including class teaching, assessment and administrative duties). The specific content of these duties will be agreed with the Programme Director and reflect the needs of the undergraduate teaching, along with the expertise and development objectives of the demonstrator student.

### Entry requirements
Applicants must have or be predicted to obtain at least a 2.1 or higher in Psychology or related subject.

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<th>Project 1</th>
<th>Student Mental Health: The Role and Experiences of Academics</th>
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<td>PSY1-DEM-OCT20</td>
<td>For many students experiencing mental health difficulties, academics are often the first point of contact. Students may turn to academics for advice because they are approachable, accessible and they have a pre-existing relationship. However, research indicates academics are struggling to respond effectively to student mental health and that this may be having a knock-on effect on their own wellbeing, in an already difficult working environment. Furthermore, academics now feel that responding to student mental health problems is an inevitable part of their role. Despite this inevitability and the great impact this situation is having, the crucial frontline role for academics is currently invisible, and the higher education sector does not have the appropriate structures or workplace cultures to assist academics.</td>
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This project will test the hypotheses that:

1. The extent to which students feel supported with their mental health depends on 1-2-1 relationships with academics.
2. Academic staff experience a conflict between a drive to support students and a lack of time to engage meaningfully.
3. A lack of clarity in the role and responsibility of academics, in relation to student mental health, leads to uncertain boundaries and increased risk for students, staff and universities.
4. Academics are poorly supported with the complex and nuanced task of
mental health signposting, leading to students slipping between gaps in support systems.

This project will use qualitative and quantitative methods to test these hypotheses with academics at KCL. Building on this, the project will further work across KCL to evaluate the impact, for academics and students, of support provided by the new provision of Student Mental Health and Wellbeing Officers.

References:

**Supervisors**
Dr Ellie Dommett and Dr Nicola Byrom
Eleanor.dommett@kcl.ac.uk / Nicola.byrom@kcl.ac.uk

https://www.kcl.ac.uk/people/ellie-dommett

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**Project 2**
*Autism Microbiota Mechanisms Study (AUTIMM)*

Autism Spectrum Disorder (ASD) is a common neurodevelopmental condition characterized by impaired social interaction, repetitive and stereotyped behavior and atypical sensory processing [1]. Despite the high individual, familial [2] and societal burden [3] of the condition, the etiology(ies) for the majority of ASD cases [4] (90%+) are unknown and effective treatments are lacking.

This is compounded by the fact that ASD is primarily considered a condition affecting the brain, whereas evidence increasingly implicates ASD as a ‘whole systems condition’, with symptoms and features in the peripheral nervous system, immune system and digestive system. Of particular note is the high rate of gastrointestinal symptoms, which present in 49% of adults with ASD and which correlate positively with ASD severity [5-6].

This has given rise to the idea that targeting components of the gut-brain axis may shift symptoms of ASD. However, before launching expensive clinical trials it is essential to understand better the (ab)normal functioning of components of gut-brain pathways in ASD and their relationship with core and co-occurring features of ASD, for example deficits in interoception and social cognition.

To address this, we will conduct a novel interdisciplinary pilot study in collaboration with the Centre for Host-Microbial Interactions. We aim to characterise the relationship between functioning of the gut-brain axis and the clinical phenotype of ASD.

**Supervisors**
Dr Caroline Catmur and Dr James Findon
Caroline.catmur@kcl.ac.uk / James.findon@kcl.ac.uk

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**Project 3**
*The Roles of Congruency, Contiguity and Contingency for the Social Consequences of Mimicry*

Behavioural mimicry is a phenomenon of interpersonal coordination, which occurs during conversations when one person unintentionally imitates another. Some researchers argue that behavioural mimicry has positive social
consequences: it creates rapport and trust, which helps build relationships. However, there are two main problems in mimicry research:

1) The roles of the two defining factors of mimicry: congruency (movement matching) and contiguity (temporal delay) for its positive social consequences have not yet been empirically demonstrated.

2) The positive social consequences of mimicry have been inconsistently replicated, suggesting that the methodological approaches used to study mimicry are sometimes unreliable and too heterogeneous to allow a conclusive understanding of it.

To address both these issues, we will use an immersive virtual reality paradigm implemented on an HTC Vive including motion tracking available at the department. The paradigm is naturalistic enough to approximate real-life situations and controlled in order to ensure standardisation and a trial by trial structure: Participants will engage in a structured turn-taking conversational task with life-sized virtual agents, while their movements are tracked and imitated in real-time by their virtual partners. The congruency and contiguity of the avatars’ imitative movements will be systematically manipulated, and an implicit measure will be developed and used to quantify the social consequences of mimicry.

- Year 1: Development and evaluation of a novel VR tool for the implicit measurement of social consequences of being imitated (e.g. interpersonal distance).

- Years 2 & 3: Studies to investigate how congruency and contiguity of imitative movements of virtual agents affect the social consequences of being imitated.

- Year 4: Study to investigate the role of partner agency for the social consequences of mimicry (belief manipulation: real person represented by avatar vs. computer animation).

This work is relevant for imitation research, social psychology and human-robot interactions.

Supervisors: Dr Caroline Catmur and Dr Alex Georgescu
caroline.catmur@kcl.ac.uk alexandra.georgescu@kcl.ac.uk

Project 4
PSY4-DEM-OCT20

The topology of adversity in adolescence

Research on adversity has traditionally focussed on early childhood. This has inadvertently left another key period of vulnerability for adversity neglected: Adolescence.

Compared to the body of work on adverse childhood experiences, there is little consensus as to what types of adversity affect adolescents, impeding the development of effective policies for prevention and intervention. Work on childhood has naturally been focused on parental and caregiver adversity, while initial evidence suggests, that for adolescents, other types of adversity, such as bullying and social exclusion by peers may be particularly detrimental.

The PhD project will address this gap in our understanding of adversity by characterizing the topology of adverse experiences in adolescence. It will capitalize on recent advances in statistical methodology (e.g. network analysis,
latent class analysis and hierarchical self-organizing maps) and the availability of large developmental samples (e.g. ALSPAC, Millennium Cohort Study, Lifebrain). Using these tools and datasets, the project will characterize the interrelationship between different types of adversity in adolescence. The first study, for instance, may investigate the relationships between different types of adversity (e.g. social exclusions, bullying, poor relationship to parents etc.) in ASPAC using Network Analysis. This will allow us to understand which types of adversity naturally co-occur and which types of adversity are particularly central to adolescents’ experiences. Further studies will then investigate the relationship between different types of adversity and cognitive, neural and mental health outcomes.

On the part of the applicant, enthusiasm for developmental theory and research is essential, as is a proven track-record of empirical, and independent research. An interest in Open Science principles is also important, as the successful applicant will be expected to pre-register studies and publish analysis code. The project further requires an interest in modern statistical approaches and data-analysis tools (e.g. R), although experience in these techniques and tools is not essential, and comprehensive training will be provided. An interest in science communication is desirable, as the project student will be encouraged to engage with relevant stakeholders (e.g. charities, policy makers) to disseminate results.

Supervisors
Dr Ted Barker and Dr Delia Fuhrmann
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www.delia-fuhrman.com

How to apply
Applicants must complete and submit an online admissions application, via the admissions portal by midnight (23:59 GMT), Sunday 22nd March 2020. On the ‘Choosing a programme’ page, please select ‘Research degrees’ and enter the keyword Psychology Academic Research MPhil/PhD (Full-time).

In your application, you will be asked to include:

- Academic Transcripts – where applicable, academic transcripts must be submitted with the online admissions application
- Details of your qualifications (you will need to attach copies)
- Details of previous employment
- A personal statement describing your interests and why you wish to apply for this project. Please include this as an attachment rather than using the text box.
- Academic References – all admissions applications require one supporting reference. If the applicant is relying on his/her referee to submit their reference directly to the College after he/she has submitted his/her admissions application, then the applicant must ensure that their chosen referee is made aware of the funding deadline.

In the Funding section, please tick box 5 and include the reference of your first choice project: PSY1-DEM-OCT20, PSY2-DEM-OCT20, PSY3-DEM-OCT20 or PSY4-DEM-OCT20

Please note there is no need to complete the Research Proposal section in your application as the project has already been set.

You are welcome to email the supervisor for the project(s) you are interested
in for more information regarding both the project and studentship.

If you have any queries regarding the application process, please contact Olivia Rees, Postgraduate Research Administrative Assistant.

References must be received by the deadline for the applicant to be eligible. Only shortlisted applicants will be contacted.

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