Research Fellow Position

The Centre for Lifelong Learning and Individualised Cognition (CLIC), funded by the National Research Foundation (NRF) in Singapore and coordinated through the Cambridge Centre for Advanced Research and Education in Singapore (CARES), is a collaboration between Nanyang Technological University (NTU) and the University of Cambridge. CLIC is a flagship programme in the Science of Learning to harness advancements in neuroscience to develop cognitive training programmes for the improvement of lifelong flexible learning, focusing initially on adolescents and young adults, but also envisaging work with infants and older adults. This is a strategic global initiative for the Universities of Cambridge and NTU that brings together multidisciplinary expertise from over 30 investigators in the areas of Neuroscience, Psychology, Linguistics and Education across the two universities.

Nanyang Technological University is a research intensive university currently ranked 13th globally and placed 1st amongst the world’s best young universities. The University has Colleges of Engineering, Business, Science, Humanities, Arts, & Social Sciences, and an Interdisciplinary Graduate School. Further, the new Lee Kong Chian School of Medicine benefits from a dual campus located at Novena, in close proximity to the Singapore city centre. The Cognitive Neuroimaging Centre (CoNiC) houses state-of-the-art neuroimaging facilities including a newly installed 3T MRI scanner and MEG, as well as new EEG, NIRS, TMS and tDCS equipment.

The first phase of the CLIC program will initially be housed at Nanyang Technological University, Singapore. As the programme progresses, other sites will be developed to meet the needs of the experimental programme. The new CLIC research centre will provide a vibrant, fast-paced, international and interdisciplinary environment with excellent opportunities for skills development and knowledge exchange between partner Principal Investigator labs in Singapore and Cambridge.

The Principal Investigators involved in the first phase of the research programme include:

From Cambridge: Director Professor Zoe Kourtzi (Psychology), Senior Scientific Advisor Professor Trevor Robbins (Psychology), Deputy Directors Professor Henriette Hendriks (Linguistics), Professor Anna Vignoles (Education), and Imaging Lead - Professor John Suckling (Psychiatry); supported by co-Investigators Prof Barbara Sahakian (Psychiatry) and Dr Michelle Ellefson (Education).

From NTU: Director Professor Annabel Chen (Psychology), Deputy Director Asst Prof Victoria Leong (Psychology), Imaging Lead - Professor Balázs Gulyas (LKCMedicine), and Principal Investigators Professor David Hung (NIE), Asst Prof Bobby Cheon (Psychology) and Assoc Prof Georgios Christopoulos (Nanyang Business School); supported by co-Investigator Dr Teo Chew Lee (NIE).

The CLIC program is seeking one full-time Research Fellow to support research activities on cognitive flexibility and learning, and training-related brain changes among adults and adolescents. Given the highly inter-disciplinary nature of the project, the research fellow will be expected to take on opportunities for involvement in research activities related to human neuroimaging, language, infant cognition/learning and pedagogy. This research position will be focusing on neuroimaging and cognition. We anticipate the successful candidate to perform within a dynamic interdisciplinary research environment and coordinates well with other teams in the CLIC program. This position will be co-
supervised by Professor Balazs Gulyas and Professor John Suckling with input from Professor Zoe Kourtzi and Professor Annabel Chen.

The responsibilities of the position include:

- Perform computational modelling and analysis of the neuroimaging and behavioural data from cognitive and related domain tasks
- Development and implementation of neuroimaging data analyses pipelines
- Conduct analysis of data and summarise research findings
- Development and implementation of data transfer and curation protocols
- Liaise with other workgroups on data management and multi-modal analyses
- Support and training of research assistants, graduate and undergraduate students
- Conduct literature reviews for publications and research briefings
- Author and co-author academic publications (e.g., journal, conference, book)
- Contribute to the production of research reports
- Contribute to the dissemination of research findings
- Perform other research-related tasks as required by the Principal Investigators

Essential requirements:

- Doctorate (PhD) degree and publication record in experimental psychology, biopsychology, cognitive psychology, neuropsychology, neurology, psychiatry, cognitive neuroscience, electrical engineering, biomedical engineering, computer science, or related fields.
- Advanced signal processing and programming skills (e.g. with Matlab, Python)
- Experience with neuroimaging techniques (MRI, EEG and/or TMS).
- Familiarity with image data analysis tools such as SPM, FSL, AFNI, and/or DSIStudio, etc.
- Experience with statistical packages, especially R and SPSS
- Good statistical knowledge and skills
- Good IT skills (i.e., Microsoft Office®)
- Strong ability to work within a multidisciplinary team
- Strong interpersonal, written and verbal communication skills
- Excellent organizational skills and able to work within given deadlines

Preferred Skills and Experience:

- Experience and/or interest in system administration and network infrastructure
- Prior experience in analyzing large datasets and data management (e.g. REDCap, MySQL)
- Prior experience working with Singaporean organizations / business
- Prior experience with academic publication processes and reports
- Self-directed learner who effectively picks up relevant skills as needed

To apply, please send Curriculum Vitae, letter of application with research interests, and three letters of recommendation to CLIC@ntu.edu.sg. Please indicate the reference number for this position: RSB SG RF3 in all application documents and correspondences.

Contact information: Centre for Research and Development in Learning, Nanyang Technological University, Academic Building North, 61 Nanyang Drive, ABN-01b-10, Singapore 637335, Phone +65 6908 1458