# **Aamir Sohail**

Centre for Human Brain Health/School of Psychology, University of Birmingham, UK

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#### Education

• Medical Research Council (MRC) AIM DTP – PhD Psychology

Sep, 2023 – Present

The University of Birmingham

Thesis Advisors: Dr Lei Zhang & Dr Patricia Lockwood (Birmingham)

Professor Mark Haselgrove (Nottingham), Dr Jessica McFadyen (Alena)

Thesis title: 'Neurocomputational mechanisms of self-referencing in social anxiety'

• Master of Science (MSc) – Distinction

Sep, 2017 – Sep, 2018

The University of Nottingham

Program: Brain Imaging

Thesis Advisors: Dr Claudia Danielmeier, Dr Jan Derrfuss

Thesis title: 'A psychophysiological interactions analysis investigating the

neuromodulatory role of the basal forebrain with the processing of unexpected events'

• Bachelor of Science (BSc) – 2:1

Sep, 2013 – Jun, 2016

Imperial College London

Program: Biomedical Science

Thesis Advisors: Professor Anne Lingford-Hughes, Dr Sam Turton

Thesis title: 'Analysis of the reward system in Disordered Gamblers using MR and 11C-carfentanil PET'

# **Employment History**

CINN Operations Support

Feb, 2022 – Sep, 2023

Centre for Integrative Neuroscience and Neurodynamics (CINN) School of Psychology and Clinical Language Sciences (SPCLS)

University of Reading

Line Manager: Professor Anastasia Christakou

CINN Assistant (CINN, SPCLS, University of Reading)

Nov, 2021 – Feb, 2022

• **Junior Research Fellow** (CINN, SPCLS, University of Reading)

Apr, 2021 – Nov, 2021

# Research Experience

### **University of Reading - Projects**

• Investigating the relationships between <u>HA</u>emostatic function, <u>VE</u>ssel health, and <u>Neurovascular health (HAVEN)</u>

Apr, 2021 – Present

Dr Gabriella Rossetti, Prof Jon Gibbins, Prof Julie Lovegrove, Prof Anastasia Christakou

• The effect of aging on functional connectivity and episodic memory performance Dr Gabriella Rossetti, Prof Anastasia Christakou

Jan, 2023 - Present

Metacognitive influences on personality and behaviour

Jul, 2022 - Present

Prof Anastasia Christakou, Dr Todd Hare (Zurich), Dr Douglas Lee (Tel Aviv)

Reliability of Magnetic Resonance Spectroscopy Measures of Brain Metabolites
Dr Brendan Williams, Dr Gabriella Rossetti, Dr Shan Shen, Prof Anastasia Christakou

Sep, 2022 - Present

 Voxel-based statistical analysis of PCC/precuneus arteriolar vessel density Solo project under HAVEN Feb, 2022

Deconvolution of serial reversal learning task data

May, 2021 - Sep, 2021

Dr Gabriella Rossetti, Prof Anastasia Christakou

• Reliability of model parameter estimates in reinforcement learning
Dr Brendan Williams, Dr Lily FitzGibbon, Dr Daniel Brady, Prof Anastasia Christakou

Apr, 2021 - Jun, 2021

# Funding/Competitive Scholarships

• MRC AIM DTP PhD Scholarship (University of Birmingham ~ £90,000) Sep, 2023 – Sep, 2027 Competitive four-year funded program (6.6% acceptance rate – 19/286 applicants)

• HONDA funding initiative (University of Reading ~ £x)
As lead researcher under PI Anastasia Christakou

Jul, 2022 – Sep, 2023

LGBT+ Inclusion Initiative Fund (University of Reading ~ up to £1,000)

Lead applicant with undergraduate student Eleanor Benford

Jun, 2023

# Relevant skills, teaching, administrative duties, and extracurricular interests

#### **Skills**

- **Programming** Python (nideconv, SciPy), R, MATLAB (Psychtoolbox), bash
- Software FSL, SPM12, ITK-SNAP, mricron, SPSS, pyBIDSconv, CONN
- Online research services REDCap, SONA, Gorilla, Prolific, 10to8, Nutanix, git/GitHub
- Trained operator of 3T Siemens Prisma ad hoc data collection for multiple studies
  - o Aided training of multiple students/staff to AP status + writing MR acquisition protocols

# Teaching/Mentoring

- Course Demonstrator (Introduction to Neuroscience Methods module, 1st year undergraduates)
  - o January-March 2023 Brain structure/function, MR physics, psychopharmacology, neuroethics
- Neuroscience skills (R, FSL) to HAVEN undergraduate placement students
- Work Experience Placements organised and delivered eight placements for college students

#### Administrative duties/extracurricular interests

- Web design Managing the CINN website (WordPress) with a Research Communications team
- Organising conferences CINN Haemodynamics Symposium, Reading Emotions, UoR ECR Conference
- 'Neurocuriosities' Independently planned, researched, and wrote a book (582 pages, 260,000 words)

### **Publications and Posters**

#### 2022

- Sohail, A., Fernández Medina, K., Weaver A., Christakou A. Future thinking: Opportunities and Challenges (in prep)
- Rossetti, GMK., The HAVEN Study Researchers., Lovegrove JA., Gibbins JM., Christakou A. Preliminary findings from the HAVEN Study: Investigating Haemostatic function, vessel health and neurocognitive health (Selected for oral abstract presentation and poster presentation at Interpreting BOLD III, 2022, by G.M.K.R, Winner of the "People's Choice" presentation award.)

#### 2021

- Rossetti, GMK., Sohail, A., Bell, T., Christakou, A. Differential haemodynamic responses in the human striatum during initial and reversal learning. (Selected for poster presentation by A.S., G.M.K.R. and A.C. at Interpreting BOLD Online, 2021)
- Williams, B., Lee, O., Vanags, P., Sohail, A., Brady, D., FitzGibbon, L., Christakou, A. Test-retest reliability of model parameter estimates in human reinforcement learning. (Selected for poster presentation by O.L. and P.V. at the Society for the Improvement of Psychological Sciences, 2021)

## 2016

• Sohail, A., Myers JFM., Mick I., Clark L., Bowden-Jones HM., Nutt DJ., Lingford-Hughes AR., Turton SP. Analysis of the reward system in Disordered Gamblers using MR and 11C-carfentanil PET. (Selected for poster presentation by A.S. at the British Association for Psychopharmacology Summer Meeting, 2016)

# **Talks**

#### 2023

- Jewell, S.L., & Sohail, A. 'Diversity and graduate recruitment imploring a bio/psychological framework'.
   Neuromethods 4/5/23. Centre for Integrative Neuroscience and Neurodynamics, University of Reading.
- Sohail, A. 'Improving future-oriented decisions through metacognitive coaching: a proposed study'. Early Career Researcher Conference 2023 31/3/23. School of Psychology and Clinical Language Sciences, University of Reading.

#### 2021

• Rossetti, GMK., & **Sohail, A.** 'Striatal haemodynamic modulation during reversal learning.' Neuromethods – 23/9/21. Centre for Integrative Neuroscience and Neurodynamics, University of Reading.

### Referees



• Dr Gabriella Rossetti
Research Fellow
University of Reading
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