

Nazia Jassim, PhD

Post-Doctoral Research Associate, Department of Psychology, University of Cambridge, Cambridge, UK

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SUMMARY

I am a cognitive neuroscientist investigating perception, learning, and decision-making in relation to mental health. My research combines computational models of cognition with behavioural and advanced neuroimaging methods, including ultra-high-resolution 7T MRI and MR spectroscopy (¹H-MRS), to understand the neurocomputations underlying human behaviour and individual differences.

ACADEMIC POSITIONS

Post-Doctoral Research Associate, Department of Psychology, University of Cambridge <i>Maternity leave: Aug 2025 – Mar 2026</i> Project Manager, “ <i>Certain about Uncertainty: Bridging Cells and the Clinic to Uncover Causal Mechanisms of Anxiety Interventions</i> ” (A Wellcome-funded, multi-site, cross-species research programme; PI: Rebecca Lawson)	Oct 2023 – present
Parke-Davis Post-Doctoral Exchange Fellow, Brown University, USA <i>Carney Institute for Brain Sciences</i>	Oct 2022 – Sept 2023
Visiting Master's Student, University of Cambridge, UK <i>Department of Psychiatry</i>	Nov 2017 – Apr 2018
Research Assistant, LMU Munich, Germany <i>Department of Child and Adolescent Psychiatry</i>	May – Oct 2017
Research Internship, Technical University of Munich, Germany <i>TUM-Neuroimaging Center</i>	Jan – May 2017
Research Internship, Charité Medical University of Berlin, Germany <i>Stress and Affective Disorders Lab</i>	Sept – Dec 2016
Research Internship, National Institute of Mental Health and Neurosciences (NIMHANS), India <i>Transpsych Lab</i>	May – Jul 2012

EDUCATION

PhD in Psychiatry (Science), Autism Research Centre, University of Cambridge, UK <i>Thesis: “The neurocognitive mechanisms of perceptual inference in autism”</i> <i>Supervisors: John Suckling & Simon Baron-Cohen</i>	2018 – 2022
MSc Cognitive Neuroscience (Sehr gut / Excellent), Freie Universität Berlin, Germany	2015 – 2018
MSc Neurobiology (First Class), Institute of Basic Medical Sciences, University of Madras, India	2010 – 2012
BSc Zoology (Distinction), Women's Christian College, University of Madras, India	2007 – 2010

PUBLICATIONS

* First author.

1. **Jassim, N.***, Waade, P.T., Parsons, O., Petzschner, F.P., Rua, C., Rodgers, C.T., Baron-Cohen, S., Suckling, J., Mathys, C., Lawson, R.P. (2025) Computational signatures of uncertainty are reflected in motor cortex excitatory neurochemistry. *Nature Communications*. doi.org/10.1038/s41467-025-64702-6
2. **Jassim, N.***, Hagan, C., Holt R., Goodyer, I., Suckling, J. (2025). Differential precuneus and frontal activity associated with facial emotion processing in adolescent depression. *Psychiatry Research: Neuroimaging*. doi.org/10.1016/j.psychresns.2025.112019
3. **Jassim, N.***, McCoy, B.*, Yip, E.W., Allison, C., Baron-Cohen, S., Lawson, R.P. (2025). The “Tetris effect”: autistic and non-autistic people share an implicit drive for perceptual cohesion. *Molecular Autism*. doi.org/10.1186/s13229-025-00654-4
4. Falter-Wagner, C.M., Gernert, C., Noreika, V., **Jassim, N.**, Streicher, J., Bekinschtein, T (2024). Protocol of

Stress in Autism (STREAM): The Role of Circadian Activity, Sleep Quality and Sensory Hyper-Reactivity. *Plos One*. doi.org/10.1371/journal.pone.0303209

5. **Jassim, N.***, Owen, A., Lawson, R.P., Suckling, J., Baron-Cohen, S., & Parsons, O. (2022). Perceptual decision-making in autism as assessed by “spot the difference” visual cognition tasks. *Scientific Reports*. doi.org/10.1038/s41598-022-19640-4
6. Procyshyn, T., Lombardo, M., Lai, M., **Jassim, N.**, Auyeung, B., Crockford, S., ... Bethlehem, R. A. (2022). Oxytocin enhances basolateral amygdala activation and functional connectivity in autistic women while processing emotional faces. *Social Cognitive and Affective Neuroscience*. doi.org/10.1093/scan/nsac016
7. Brandl F., Weise B., Bratec S.M., **Jassim N.**, Hoffmann D.A., Bertram T., Ploner, M., Sorg C. (2022). Common and specific large-scale brain changes in major depressive disorder, anxiety disorders, and chronic pain: A transdiagnostic multimodal meta-analysis of structural and functional MRI studies. *Neuropsychopharmacology*. doi.org/10.1038/s41386-022-01271-y
8. **Jassim, N.***, Baron-Cohen, S., & Suckling, J. (2021). Meta-analytic evidence of differential prefrontal and early sensory cortex activity during non-social sensory perception in autism. *Neuroscience & Biobehavioural Reviews*. doi.org/10.1016/j.neubiorev.2021.04.014

GRANTS & FELLOWSHIPS

- School of Biological Sciences Participatory Research Support Fund, University of Cambridge (2026)— £653
- Parke-Davis Postdoctoral Exchange Fellowship, University of Cambridge (2022) — £34,909
- Grindley Award for research , Dept of Psychology, University of Cambridge (2021) — £3,535
- NIHR Cambridge Biomedical Research Centre (BRC) Scanning Costs Award (2018) —£17,080
- April Trust PhD Studentship, Newnham College (2018) — £134,857

AWARDS & TRAVEL FUNDING

- British Association for Psychopharmacology (BAP) Postdoc Travel Bursaries for BAP annual meetings at Manchester (2023 & 2025) — £300
- Charles Slater Travel Award for Federation of European Neuroscience Societies (FENS) Forum, Vienna (2024) — £400
- Guarantors of Brain Travel Award for FENS Forum, Vienna (2024) — £600
- International Society of Autism Research (INSAR) Travel Award, Melbourne (2024) — \$2,000
- Guarantors of Brain Travel Award for Organisation of Human Brain Mapping (OHBM) Annual Meeting, Glasgow (2022) — £400
- Newnham College Graduate and Research Support Award to attend Computational Psychiatry course at Zurich (2019) — £750
- INSAR Travel Award, cancelled due to COVID-19 (2020) — \$2000
- Erasmus+ Mobility Grant for 6-months Masters research at Psychiatry Dept, Cambridge (2016) — €2,600
- Indian Academy of Sciences Summer Research Award for stint at NIMHANS, Bangalore (2012) — ₹15,000

SELECTED CONFERENCE PRESENTATIONS

Jassim, N. et al. (2025). Region-specific glutamate+glutamine levels predict volatility beliefs: A 7-Tesla Magnetic Resonance Spectroscopy and computational modelling study of uncertainty and trait anxiety. Oral and poster presentation, *BAP Summer Meeting 2025*, Manchester, UK.

Jassim, N. et al. (2025). Neurochemical markers of uncertainty processing in humans. Oral presentation (flash talk), *Exploring Interdisciplinary Frontiers: Cognitive Science, Computational Modeling, and Artificial Intelligence 2025*, Cambridge, UK.

Jassim, N. et al. (2024). Autistic traits mediate the relationship between occipital GABA and perceptual choice in a target detection task. Poster presentation, *FENS Forum 2024*, Vienna, Austria.

Jassim, N. et al. (2024). The relationship between autism, autistic-like traits, and the perception of “possibility”. Poster presentation, *INSAR annual meeting 2024*, Melbourne, Australia.

Jassim, N. et al. (2022). Sensorimotor learning and expectations in adults with varying levels of autistic traits. Poster presentation, *OHBM annual meeting 2022*, Glasgow, UK.

Jassim, N., et al. (2020). Non-social sensory perception in autism: An fMRI ALE meta-analysis. Poster presentation, *OHBM annual meeting 2020* (virtual, COVID-19).

Jassim, N. et al. (2018). Emotional brain processes in adolescent depression. Poster presentation, *Cambridge Neuroscience Seminar 2018*, Cambridge, UK.

INVITED TALKS

- “Using 7T MRS to understand learning and choice behaviour”, *7T Terra.X Launch Symposium, Cambridge, UK*, Jun 2026
- “How the brain handles uncertainty, and what that means for mental health”, *Keynote, Annual Newnham Graduate Conference, Newnham College, Cambridge, UK [Lay-friendly]*, Jun 2025
- “Learning and decision-making in mental health and neurodiversity”, *Wednesday Lunchtime Seminar Series, MRC Cognition and Brain Sciences Unit, Cambridge, UK*, Oct 2024
- “Perceptual decision-making in autism: From neurochemistry to cognition”, *ARClub Talks, Autism Research Centre, University of Cambridge, UK*, May 2024
- “The cognitive neuroscience behind sensory perception and learning in autism spectrum conditions”, *Newnham College Alumnae Event, Pitt Rivers Museum, Oxford, UK [Lay-friendly]*, Mar 2023
- “Learning and perception in autism”, *Autism Research (ARCH) Seminar Series, ReSpec Lab, King's College London, UK*, Jun 2022
- “Meta-analytic evidence of differential prefrontal and early sensory cortex activity during non-social sensory perception in autism”, *Cambridge Neuroscience Society Seminars, Cambridge, UK*, May 2021
- “How do autistic individuals process sensory information? Findings from cognitive neuroscience”, *Newnham Pudding Seminar Series, Newnham College, Cambridge, UK [Lay-friendly]*, May 2021
- “Non-social sensory perception in autism”, *Autism Journal Club, University of Glasgow, UK*, Sept 2020

TEACHING & SUPERVISION

- Lecturer, Psychology and Medical Sciences undergraduate degree programmes, Uni of Cambridge (2024–2025) — Topics: Mental Health and Neurodevelopment; Depression and Anxiety
- Undergraduate dissertation supervision, Psychology, Uni of Cambridge (2024–present) — Topics: Visual cognition in autism, Psychometric assessment of mental health (co-supervised with Rebecca Lawson)
- Small-group teaching, Psychology and Natural Sciences, various Colleges, Uni of Cambridge (2019–present) — Topics: Psychological Enquiry & Methods; Cognitive Neuroscience/Experimental Psychology; Computational Theories of Autism

ACADEMIC LEADERSHIP & SERVICE

- Postdoc Representative, Dept of Psychology, Uni of Cambridge (2023–present)
- Research Staff Rep, Information Committee, Dept of Psychology, Uni of Cambridge (2023–present)
- Undergraduate admissions interviewer (Psychology), Clare College, Uni of Cambridge (2022–2024)
- Examination assessor (Psychology, Neurobiology, Mental Health), Uni of Cambridge (2023–present)
- Dissertation-marking (Psychology, Biological & Biomedical Sciences), Uni of Cambridge (2023–present)
- Symposia/events organiser: Psychology Staff Research Symposium (Jun 2025); inter-departmental social events for Psychology/Neuroscience postdoctoral researchers (2023–present)
- Welfare Officer (elected), Newnham College Postgraduate Students MCR (2019–2020)
- Ad-hoc peer reviewer: Autism Research, BMC Psychology, Brain and Cognition, Brain Imaging and Behavior, Molecular Autism, Neurodiversity, Scientific Reports

AFFILIATIONS & MEMBERSHIPS

College Research Associate, Clare College, Cambridge (2023–2024) | Honorary Research Associate, Autism Research Centre, Uni of Cambridge (2022–2025) | Cambridge Philosophical Society (2019–2023) | British

Association for Psychopharmacology (2023–present)| Women in Cognitive Science, WICS+ (2024–present)| Federation of European Neurosciences Societies (2023–2024)| International Society for Autism Research (2019–2024)| British Neuroscience Association (2020–2024)| Organization for Human Brain Mapping (2019–2022)

ACCESS, OUTREACH, & COMMUNITY ENGAGEMENT

- Speaker, Cambridge Seren Residential, organised by the Government of Wales and Churchill College (Apr 2025): introductory lecture on psychology and neuroscience for students from state-maintained schools in Wales
- Organiser and facilitator, PPI workshops with lived-experience mental health experts (2024–present)
- Mentor, Cambridge Access to Mental Health and Psychology Summer School (Jul 2021): supervised undergraduate psychology student from University of Dundee on research proposal-writing and postgraduate applications