TRICIA X.F. SEOW

Max Planck UCL Centre for Computational Psychiatry and Ageing Research

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APPOINTMENTS

Senior Research Fellow   *2024 - present*
Research Fellow   *2020 - 2024*
Max Planck UCL Centre for Computational Psychiatry and Ageing Research
University College London, United Kingdom
Supervisor: Prof Tobias Hauser
Neurocognitive Mechanisms of OCD and OCD therapy
Funded by Sir Henry Wellcome Postdoctoral Fellowship (Jan 2022 onwards)

Research Assistant   *2015 - 2016*
Wellcome Trust Centre for Neuroimaging
University College London, United Kingdom
Supervisor: Prof Stephen Fleming
Metacognition and Visual Consciousness

Undergraduate Intern   *2013 - 2014*
Institute of Cognitive Neuroscience
University College London, United Kingdom
Supervisor: Dr Raphael Köster & Prof Emrah Düzel
Emotion and Decision Making

EDUCATION

PhD in Psychology   *2017 - 2020*
Trinity College Dublin, Ireland
Supervisor: Dr Claire Gillan
Dissertation: The Neurocognitive Correlates of Compulsivity
Funded by TCD Postgraduate Ussher Fellowship

Msci Neuroscience   *2011 - 2015*
University College London, United Kingdom
Supervisor: Prof Laurence Hunt
Thesis: Choice Dynamics with MEG
Graduated First Class Honours, Burnstock Prize (Year Three & Four)

AWARDS

UCL WCHN Public Engagement Rising Star Award Nominee	*2023*
Best selected talk at Society for Neuroscience Singapore Chapter 2022	*2022*
UCL WCHN Public Engagement Recognition Silver Badge	*2022*
Burnstock Prize (Best Year Four cohort performance)	*2015*
The Dean's List – UCL Faculty of Life Sciences (Year Four)	*2015*
Burnstock Prize (Best Year Three cohort performance)	*2014*
The Dean's List – UCL Faculty of Life Sciences (Year Three)	*2014*
The Dean's List – UCL Faculty of Life Sciences (Year Two)	*2013*

GRANTS

Sir Henry Wellcome Postdoctoral Fellowship: £300,000/4 years	*2022*
Guarantors of Brain Travel Award for BAP 2019	*2019*
Trinity College Travel Grant for SOBP 2019	*2019*
Guarantors of Brain Travel Award for SFN 2017	*2017*
TCD Postgraduate Ussher Fellowship: €13,000 per annum/3 years	*2017*

PRESENTATIONS

Talks

Cognitive Computational Neuroscience 2024, Massachusetts, US	*2024*
Wellcome Researcher Meeting, Birmingham, UK	*2024*
UCL Education Conference 2023, UCL, London, UK	*2023*
Consciousness Club, UCL, Online Meeting	*2023*
Society for Neuroscience Singapore Chapter Annual Symposium, Singapore	*2022*
Computations of agency and metacognition in mental health workshop, ICN UCL, London, UK	*2022*
The College on Problems of Drug Dependence 2022, Minnesota, US	*2022*
Challenges and new approaches in Cognitive Computational (neuro)Psychiatry 2021, Virtual Symposium	*2021*
Computational Modelling in Development, FLUX 2021, Online Meeting	*2021*
British Association for Psychopharmacology 2021, Online Meeting	*2021*
Computational Psychiatry Seminar, Max Planck UCL, London, UK	*2020*
Friko Seminar Series, Max Planck, Tübingen, Germany	*2019*

Posters

Cognitive Computational Neuroscience 2024, Massachusetts, US	*2024*
Computational Psychiatry Conference 2023, Dublin, Ireland	*2023*
UCL Neuroscience Symposium 2023, UCL, London, UK	*2023*
Federation of European Neuroscience Societies Forum 2022, Paris, France	*2022*
Symposium on Biology of Decision Making 2021, Paris, France (virtual)	*2021*
Society for NeuroEconomics 2019, Dublin, Ireland	*2019*
British Association for Psychopharmacology 2019, Manchester, UK	*2019*
Society for Biological Psychiatry 2019, Chicago, Illinois, US	*2019*
Society for Neuroscience 2017, Washington DC, US	*2017*

Forums

ECNP New Frontiers Meeting 2024, Nice, France	*2024*
Wellcome Trust Bridging the gap: Neuroscience and Clinical Practice in Mental Health Workshop, London, UK	*2023*

Exhibition stalls

New Scientist Live 2024, London, UK	*2024*
Royal Society Lates: what's on your mind?, London, UK	*2024*
ocdaction National Conference 2023, London, UK	*2023*

PUBLICATIONS   *First author papers* *Equal contribution*

T. X.F. Seow, L. Jelinek, S. Mortiz and T. U. Hauser. Towards an integrative understanding of metacognitive mechanisms in psychopathology. Invited by *Nature Reviews Psychology (in prep)*	*2025*

T. X.F. Seow, J. McFadyen, R. J. Dolan and T. U. Hauser. Biased replay of aversive and uncertain outcomes underlies irrational decision making. *BioRxiv. doi: 10.1101/2025.01.17.633533 (Nature, submitted)* — 2025

C. A. Fox, V. Teckentrup, K. R. Donegan, T. X.F. Seow, C. Benwell, B. Tervo-Clemmens and C. Gillan. Cognitive arbitration between candidate dimensions of psychopathology. *Psyarxiv. doi: 10.31234/osf.io/7waey (Molecular Psychiatry, under review)* — 2024

A. M. Loosen, T. X.F. Seow and T.U. Hauser. Consistency within change: Evaluating the psychometric properties of a widely-used predictive-inference task. *Behaviour Research Methods. doi: 10.3758/s13428-024-02427-y* — 2024

T. X.F. Seow, S. M. Fleming and T. U. Hauser. Metacognitive biases in anxious-depression and compulsivity extend across perception and memory. *Psyarxiv. doi: 10.31234/osf.io/avyph (PLOS Mental Health, under review)* — 2024

T. X.F. Seow and T.U. Hauser. Reliability of anxiety and harm ratings of animal and tool visual stimuli. *Open Wellcome Research. doi:10.12688/wellcomeopenres.20693.1* — 2024

C. A. Fox, C. T. Lee, A. Hanlon, T. Seow, K. Lynch, S. Harty, D.Richards, J. Palacios, V. O'Keane, K. E. Stephan and C. Gillan. An observational treatment study of metacognition in anxious-depression. *eLife. doi: 10.7554/eLife.87193.* — 2023

T. X.F. Seow*, M. Rouault*, C. M. Gillan and S. M. Fleming. Correspondence: Computational approaches are compatible with the depth and breadth of metacognition. *Biological Psychiatry, 91(8), pp 33-34. doi: 10.1016/j.biopsych.2021.11.005* — 2022

T. X.F. Seow, and T. U. Hauser. Reliability of web-based affective auditory stimulus presentation. *Behaviour Research Methods. doi: 10.3758/s13428-021-01643-0* — 2021

T. X.F. Seow*, M. Rouault*, C. M. Gillan and S. M. Fleming. How local and global metacognition shape mental health. *Biological Psychiatry, 9(7), pp 436-446. doi: 10.1016/j.biopsych.2021.05.013* — 2021

T. X.F. Seow, E. Benoit, C. Dempsey, M. Jennings, A. Maxwell, O'Connell, R., and C. M. Gillan. Model-based learning deficits in compulsivity are linked to faulty representations of task structure. *Journal of Neuroscience, 1(30), pp 6539-6550. doi: 10.1523/JNEUROSCI.0031-21.2021* — 2021

T. X.F. Seow, E. Benoit, C. Dempsey, M. Jennings, A. Maxwell, M. McDonough and C. M. Gillan. A dimensional investigation of error-related negativity (ERN) and self-reported psychiatric symptoms. *International Journal of Psychophysiology, 158, pp 340-348. doi: 10.1016/j.ijpsycho.2020.09.019* — 2020

C. M. Gillan and T. X.F. Seow. Carving out new transdiagnostic dimensions for research in mental health. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 5(10), pp 932-934. doi: 10.1016/j.bpsc.2020.04.013* — 2020

T. X.F. Seow and C. M. Gillan. Transdiagnostic phenotyping reveals a host of metacognitive deficits implicated in compulsivity. *Scientific Reports 10, 2883, doi: 10.1038/s41598-020-59646-4* — 2020

D. Rahnev et al., [including T. X.F. Seow]. The confidence database. *Nature Human Behaviour, pp 1-8. doi: 10.1038/s41562-019-0813-1* — 2020

T. Seow and S. M. Fleming. Perceptual sensitivity is modulated by what others can see. *Attention, Perception & Psychophysics 81(6), pp 1979-1990. doi: 10.3758/s13414-019-01724-5* — 2019

M. Rouault*, T. Seow*, C. M. Gillan and S. M. Fleming. Psychiatric symptom dimensions are associated with dissociable shifts in metacognition but not task performance. *Biological Psychiatry 84(6), pp 443-451. doi: 10.1016/j.biopsych.2017.12.017* — 2018

R. Köster, <u>T. X. Seow</u>, R. J. Dolan and E. Düzel. Stimulus novelty energies actions in the absence of explicit reward. *PLoS One 11(7): e0159120. doi: 10.1371/journal.pone.0159120*   *2016*

TEACHING & SUPERVISION

IoN PhD upgrade examiner	*2024*
Marker for Msc Clinical Neuroscience thesis (2 Msc)	*2023 - present*
Lecturer/Marker for Higher Functions of the Brain (CLNE0003)	*2023 - present*
Lecturer/Marker for Psychopharmacology (PHAR0015)	*2023 - present*
Lecturer for Neuroscience of Emotion and Decision Making (PSYCH0088)	*2023 - present*
Co-supervision of Tübingen CaCTüS Intern	*2023*
Co-supervision of UCL Clinical Neuroscience Msc student	*2022 - 2023*
Lecturer/Marker for Research Methods/Critical Appraisal (CLNE0007)	*2022 - 2024*
Co-supervision of UCL Brain and Mind Science Msc student	*2021 - 2022*
Teaching assistant for R Programming Workshop at TCD GBHI	*2019*
Technical support for TCD GBHI Atlantic Fellows classes	*2019*
Co-supervision of 5 TCD Psychology Bsc students	*2017 - 2018*

MENTORING

IoN Academic Mentoring Scheme mentor (1 Msc)	*2023 - present*
IoN Personal Tutor (9 Msc students)	*2022 - present*
IoN Under-Represented Students Mentorship Scheme mentor (1 Bsc, 2 Msc)	*2022 - present*
In2research Programme mentor (3 Bsc students)	*2020 - 2021*

COMMUNITY INVOLVEMENT

IoN Athena SWAN self-assessment team member	*2023 - present*
Festival of Early Stage Researchers (FESR) Leadersship in Action panellist	*2023*
Organiser of Max Planck UCL Centre Computational Psychiatry Seminar series (70 talks)	*2022 - present*
University of Tübingen Interviewer panellist for (7 roles)	*2022 - 2023*
UCL IoN Interviewer panellist (2 roles)	*2022 - 2023*
OCD and the Brain public engagement project	*2022 - 2023*

- Awarded ERC Public Engagement with Research Award 2024
- Awarded UCL WCHN Outstanding Public Engagement Award 2023

ECR representative for UCL IoN EDI committee	*2021 - present*
TCD Neuroscience Society committee member	*2017 - 2018*

AD-HOC PEER REVIEW

Wellcome Trust, Nature Human Behaviour, Biological Psychiatry, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Neuroscience and Biobehavioral Reviews, Translational Psychiatry, Psychological Medicine, International Journal of Mental Health and Addiction, NeuroImage, Research Behavior Methods, Human Brain Mapping, British Journal of Psychiatry, PLOS Computational Biology, Scientific Reports, BMC Psychiatry, Social Cognitive and Affective Neuroscience, Heliyon, Brain and Behavior, Consciousness and Cognition

Reviewed abstracts for the Computational Psychiatry Conference 2024, Cognitive Computational Neuroscience Conference 2024