

Dr Ondrej Zika

Research Scientist at Karolinska Institute, Sweden

ERC Fellow at Bielefeld University, Germany

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EDUCATION

2015 - 2019 **DPhil (PhD) in Clinical Neurosciences, University of Oxford**
2010 - 2014 **BScEcon Marketing and Psychology (First Class Honours), Aberystwyth University**

SCIENTIFIC POSITIONS

2025 - **ERC Fellow, Bielefeld University, Germany**
Research collaboration on learning and memory in mental health

2024 - **Post-doc, Karolinska Institute, Sweden (Dr. Kristoffer Månsson)**
Neural predictors of symptom severity and treatment outcomes in anxiety and depression

2019 - 2024 **Post-doc and Deputy PI, Max Planck Institute, Berlin (Prof Nicolas Schuck)**
Leading research projects in cognitive neuroscience and computational psychiatry.

2021 - 2022 **Guest Editor at the International Journal of Psychophysiology**
Organisation of a Special Issue on Intolerance of Uncertainty (Morris et al., 2023)

2014 - 2015 **Research Assistant at University of Oxford (Prof Sonia Bishop)**
Cognitive bias in patients with Generalised Anxiety and Depression (Bijsterbosch et al. 2018)
Misestimation of uncertainty in internalising psychopathology (Gagne et al. 2020)

2012 - 2013 **Research Assistant at California Institute of Technology (Prof John O'Doherty)**
Neural representation of habitual and goal-directed behaviour (McNamee et al. 2015)

SELECTED PUBLICATIONS AND PREPRINTS

2025

Zika, O. (2025, *preprint*). Defenses against LLM prompt injections in academic peer review.
https://doi.org/10.31234/osf.io/zxuwf_v2

Munteanu-Forij, O. Poetar, C. **Zika, O.**, Predescu, E., Şipoş, R., Dobrean, A., Månsson, K. (2025, *submitted*).
Neuroimaging anxious children and adolescents before and after cognitive behavioral therapy: a systematic review. *Submitted to American Journal of Psychiatry*

Verra, L., Spitzer, B., Schuck, N. W. * & **Zika, O.*** (2025, *preprint*). Increased generalisation in trait anxiety is driven by value transfer, not reduced perceptual discrimination. *2nd round of reviews in Nature Comms*.
<https://osf.io/preprints/psyarxiv/yh8f3>

2024

Hall-McMaster, S.* & **Zika, O.*** (2024, *preprint*). Increasing response vigour under time pressure as a transdiagnostic marker of eating disorders. *2nd round of revision in Computational Psychiatry*,
<https://osf.io/preprints/psyarxiv/kzwd>

Koch, C., **Zika, O.**, Bruckner, R., Schuck, N. W. (2024). Influence of surprise on reinforcement learning in younger and older adults. *PLOS Computational Biology* 20(8). <https://doi.org/10.1371/journal.pcbi.1012331>

Bruntsch, M., Cooper, S. E., Abend, R., Boor, M., Chalkia, A., Ehlers, M., Czeszumski, A., Johnson, D., Klingelhöfer-Jens, M., Morriss, J., Mueller, E., **Zika, O.** and Lonsdorf, T. (2024, *preprint*). Associations between anxiety-related traits and fear acquisition and extinction - an item-based content and meta-analysis [Stage 1 Registered Report]. <https://doi.org/10.31234/osf.io/unx7w>

Zika, O., Appel, J., Klinge, C., Shkreli, L., Browning, M., Wiech, K. A. and Reinecke, A. (2024). Reduction of aversive learning rates by Angiotensin II antagonist losartan: A randomised controlled trial. *Biological Psychiatry*. <https://doi.org/10.1016/j.biopsych.2024.01.020>

2023

Petzka, M., **Zika, O.**, Staesina, B. P., Cairney, S. A. (2023). Better late than never: sleep still supports memory consolidation after prolonged periods of wakefulness. *Learning and Memory*, 30: 245-249.

Zika, O., Wiech, K. A., Reinecke, A., Browning, M. and Schuck, N. W. (2023). Trait anxiety is associated with hidden state inference. *Nature Communications* 14, 4203. <https://doi.org/10.1038/s41467-023-39825-3>

Zika, O. (2023). The relationship between latent state inference and (intolerance of) uncertainty. *Neuroscience and Biobehavioral Reviews*, 152, <https://doi.org/10.1016/j.neubiorev.2023.105321>

Morriss, J., Abend, R., **Zika, O.**, Bradford, D. and Mertens, G. (2023). Neural and psychophysiological markers of intolerance of uncertainty. *International Journal of Psychophysiology*. <https://doi.org/10.1016/j.ijpsycho.2023.01.003>

Pre 2022

Gagne, C., **Zika, O.**, Dayan, P., & Bishop, S. J. (2020). Impaired adaptation of learning to contingency volatility in internalizing psychopathology. *Elife*, 9, e61387.

Bijsterbosch, J. D., Ansari, T. L., Smith, S., Gauld, O., **Zika, O.**, Boessenkool, S., Browning, M., Reinecke, A. and Bishop, S. J. (2018). Stratification of MDD and GAD patients by resting state brain connectivity predicts cognitive bias. *Neuroimage Clin.*, 19: 425–433.

McNamee, D., Liljeholm, M., **Zika, O.** and O'Doherty, J.P. (2015). Characterizing the associative content of brain structures involved in habitual and goal-directed actions in humans: a multivariate fMRI study. *Journal of Neuroscience*, 35(9), 3764 - 3771.

Gao, S., **Zika, O.**, Rogers, R. and Thierry, G. L. (2015). Second language feedback abolishes the "hot hand" effect during even-probability gambling. *Journal of Neuroscience*, 35(15), 5983-5989.

GRANTS, AWARDS and STIPENDS

2024	ERC Fellowship , personal grant, €125 000
2022 - 2026	Jacobs Foundation Seed Grant , 3-year grant, 75 000 CHF
2021 - 2025	German Research Foundation (DFG) : Neural processing of belief-state uncertainty (€280 000)
2017	Medical Research Council Supplementary Training Award : £3 000 Travel Award for Cognitive Computational Neuroscience 2017: \$500
2015 - 2018	Medical Sciences Graduate School Studentship £90 000
2014	Prize for Best Undergraduate Joint Honours Dissertation , British Psychological Society
2012 - 2013	The Kellner Foundation Scholarship for talented Czech students: £3 500 and \$20 000

TEACHING AND SUPERVISION EXPERIENCE

PhD supervision

Luianta Verra (2022-present), *Aversive generalisation and replay in health and disease*
Christoph Koch (2019-2023), *Influence of surprise on reinforcement learning in ageing*

MSc supervision

Luianta Verra, *Behavioural and neural basis of uncertainty*

BSc and RA supervision

Michelle Kowalski (2024); Selma Polte (2024); Ana Boeke (2023); Katya Yasenska (2020); Verena Sarrazin (2019); Sudeshna Bora (2019); Judith Appel (2017)

Teaching

2025 -	Lecturer in Research Methods and Cognitive and Affective Neuroscience modules at Bielefeld University
2020 - 2022	Tutor , repeating half-day tutorial on the use of git and datalad for code and data management
2021	Guest lecturer , Polytechnic University of Milan
2021	Guest lecturer , Max Planck Graduate School LIFE Seminar
2018 - 2019	Tutor , Statistical Methods and Programming in Biomedical Sciences, University of Oxford

Additionally, many individual tutorials and practicals on topics in research methods, modelling, reproducibility and data management.

Outreach

- 2023 **Host**, Hosted two high-schools students for as part of "Practical experience in science" programme, Berlin
- 2018 **Host**, Participation in the in2science programme, hosted a student over summer'
- 2017 **Organiser**, Science Club at Pitt Rivers Museum, Oxford

INVITED TALKS

- 2025** European Association for Cognitive and Behavioural Therapies Congress 2025, Glasgow
Research unit lecture series, Hamburg
Psychology & Brain (PuG), Tuebingen, Invited talk
Colloquium talk, Bielefeld University
Clinical Neuroscience at Karolinska Institute, Stockholm, Guitart-Masip lab
- 2024** Max Planck Institute for Psychiatry, Munich, Symposium talk
Karolinska Clinical Neurosciences Symposium, Stockholm
German Psychological Society Congress, Vienna, Austria
British Association for Psychopharmacology, Birmingham, UK
Lifespan Development Colloquium, MPIB, Berlin
Department of Psychology, University of Amsterdam, Kindt lab, The Netherlands
- 2023** Reinforcement learning and decision making seminar, Peter Dayan Lab, Tübingen
Trinity College Dublin, Department of Psychology, Gillan lab, Dublin, Ireland
Institute for Systems Neuroscience, UKE Hamburg, Hamburg, Germany,
European Meeting for Human Fear Conditioning 2023
UCL Max Planck Computational Psychiatry Seminar series
- 2022** Reinforcement Learning and Decision-Making (RLDM) 2022 Conference
PAIN Group meeting, University of Oxford, UK
European Meeting for Human fear Conditioning 2022, presentation
PHI Lab, University of Torun, Poland
Nassar Lab Meeting, Brown University, US

CONFERENCE PRESENTATIONS AND POSTERS

- 2025** Psychology & Brain (PuG), Invited talk
European Association for Cognitive and Behavioural Therapies Congress 2025, Invited talk
Reinforcement Learning and Decision Making (RLDM), Symposium organiser
Computational psychiatry 2025, Poster
StratNeuro retreat 2025, Poster
- 2024** German Psychological Society Congress, Vienna, Invited talk
British Association for Psychopharmacology, Birmingham, Invited Talk
Psychology and Brain (PuG), Hamburg, Poster
- 2023** European Meeting for Human Fear Conditioning 2023, Salzburg, Talk
Computational Psychiatry 2023, Dublin, Talk/Poster
- 2022** Reinforcement Learning and Decision Making (RLDM), Providence, Talk
European Meeting for Human Fear Conditioning, online, Talk
Computational Properties of the Prefrontal Cortex, Oxford, Poster
- 2021** Society for Affective Science Annual Meeting (SAS), Pre-recorded talk
European Meeting for Human Fear Conditioning (EMHFC), Poster
- 2019** Cognitive Computational Neuroscience (CCN), Poster
Motivation and Cognitive Control (MCC), Poster
Orbito-frontal Cortex Meeting, Paris, Poster
- 2018** Society for Neuroscience, San Diego, Poster
Bayesian Modelling Course, Amsterdam, Poster

2017 Pain Research Meeting, Antwerp, Poster
Cognitive Computational Neuroscience (CCN), Poster

SYMPOSIUM ORGANISATION

2025 **Symposium organiser** at Reinforcement Learning and Decision Making 2025 conference, Dublin,
<https://sites.google.com/view/game-on-rldm-2025/home>

OTHER ROLES

2023 - 2024 **Mental Health First Aid Supporter**
Departmental role to provide help for colleagues experiencing mental health difficulties

2022 - 2023 **Deputy Principal Investigator during parental leave**
Responsible for management and administration of a 22-member research group (the lab of Prof. Schuck during his parental leave)

2018 - 2019 **Student representative on the Staff Development Committee**
Departmental committee responsible for wellbeing, mental health, gender equality, inclusivity, completed Athena SWAN application.

AD-HOC REVIEWER FOR

Nature Communications, Computational Psychiatry, Communications Psychology, Journal of Neuroscience, Nature Human Behaviour, Brain, European Journal of Pain, The Journal of Pain, NeuroImage, Neuropsychologia, Cerebral Cortex, PLOS Computational Biology, Emotion, The International Journal of Psychophysiology, Translational Psychiatry, Behavioural and Neuroscience Review

CURRENT COLLABORATORS

Prof. Claire Gillan, Trinity College Dublin	Dr. Miquel Fullana (Barcelona)
Prof. Peter Dayan, MPI Tuebingen	Prof. Guillaume Thierry, Bangor University
Dr. Alexandra Pike, York University	Dr. Sam Hall-McMaster, Harvard
Dr. Toby Wise, King's College London	Dr. Andrea Reinecke, Oxford University
Dr. Katja Wiech, Oxford University	Dr. Nadesha Trudel, UCL/Oliva Health
Prof. Merel Kindt, University of Amsterdam	Dr. Lennart Luettgau, UCL/UK AI Safety Inst.
Dr. Lotte Stemmerding, University of Amsterdam	Dr. Kristoffer Månsson, Karolinska Institute Sweden
Prof. Nicolas Schuck, University of Hamburg	
Prof. Tina Lonsdorf, Bielefeld University	
Prof. Mona Garvert, Wuerzburg	

REFEREES

Prof. Nicolas Schuck - supervisor and line manager during postdoctoral employment.

Universität Hamburg, Von-Melle-Park 5, 20146 Hamburg, nicolas.schuck@uni-hamburg.de

Dr. Katja Wiech - main supervisor of doctoral work.

WIN Center, NDCN Oxford University, JR Hospital Oxford, OX3 9DU, katja.wiech@ndcn.ox.ac.uk

Prof. Tina Lonsdorf - collaborator and line manager at Bielefeld University, Bielefeld, Universitätsstraße 25, 33615 Bielefeld, tina.lonsdorf@uni-bielefeld.de.