Laura L. Grima, D.Phil.

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Research Positions

May 2025 - present	Research Scientist, HHMI Janelia Dudman Lab, Mechanistic Cognitive Neuroscience
Sep. 2019 – April 2025	Postdoctoral Associate, HHMI Janelia Dudman Lab, Mechanistic Cognitive Neuroscience
Nov. 2018 – Aug. 2019	Postdoctoral Research Associate, University of Oxford Walton Lab, Department of Experimental Psychology
July – Oct. 2016	Visiting Scientist, Champalimaud Centre for the Unknown, Portugal Paton Lab

Education

2014 – 2018	D.Phil. Experimental Psychology, University of Oxford <i>Investigating the neurochemical basis of action initiation, selection, and inhibition</i> Supervised by Prof. Mark Walton and Prof. Masud Husain External examiner: Prof. Trevor Robbins (University of Cambridge) Internal examiner: Prof. Rafal Bogacz
2013 - 2014	M.Sc. Psychological Research, University of Oxford Supervised by Prof. Masud Husain and Dr. Matthew Apps
2010 - 2013	B.Sc. Psychology, Royal Holloway University of London Supervised by Dr. Jonas Larsson and Dr. Steve Hammett

Publications in preparation

Grima, L. L., Akam, T., Cinotti, F., Sarra, D., & Walton, M. Mesolimbic dopamine is modulated by local and global environmental richness.

Preprints & under review

- Grima, L. L., Guo, Y., Narayan, L., Hermundstad, A. M., & Dudman, J. T. (2024). A global dopaminergic learning rate enables adaptive foraging across many options. https://www.biorxiv.org/content/10.1101/2024.11.04.621923v2
- **Grima, L. L.,** Haberkern, H., Mohanta, R., Morimoto, M., Rajagopalan, A., & Scholey, E. Foraging as an ethological framework for neuroscience.

Peer-reviewed publications

Grima, L. L., Panayi, M. C., Harmson, O., Syed, E. C. J., Manohar, S. G., Husain, M., & Walton, M. E. (2022). Nucleus accumbens D1-receptors regulate and focus transitions to reward-seeking action. *Neuropsychopharmacology*.

- Harmson, O.*, **Grima, L. L.***, Panayi, M. C., Husain, M., & Walton, M. E. (2022). 5-HT_{2C} receptor perturbation has bidirectional influence over instrumental vigour and restraint. *Psychopharmacology, 239*, 123-140. * *Equal contribution*
- Chong, T.-J., Apps, M., Giehl, K., Sillence, A., **Grima, L. L.**, & Husain, M. (2017). Neurocomputational mechanisms underlying subjective valuation of effort costs. *PLoS Biology*, *15*(2), e1002598.
- Syed, E. C. J., **Grima, L. L.**, Magill, P. J., Bogacz, R., Brown, P., & Walton, M. E. (2016). Action initiation shapes mesolimbic dopamine encoding of future rewards. *Nature Neuroscience*, *19*(1), 34-36.
- Apps, M. A. J., **Grima, L. L.**, Manohar, S., & Husain, M. (2015). The role of cognitive effort in subjective reward devaluation and risky decision-making. *Scientific Reports, 5,* 16880.

Grants, Fellowships, and Awards

Please note that as researchers working at Janelia are not permitted to receive grant funding, I have not submitted any grants during my current position.

July 2018	Presentation Prize, MSD D.Phil. Day, University of Oxford
Jan. – June 2018	Goodger & Schorstein Scholarship (£6,000), University of Oxford
August 2017	Research Training Support Grant (£1,300), ESRC
August 2017	Travel Grant (£1,000), Guarantors of Brain
July 2017	Special Grant (£630), St. John's College, Oxford
July 2017	Best Poster Award, FENS/SfN Summer School
September 2016	Special Grant (£620), St. John's College, Oxford
September 2016	Competitive Travel Grant (€500), Dopamine 2016
July 2016	Academic Travel Award (£500), Santander
July 2016	Research Training Support Grant (£170), ESRC
July – Oct. 2016	Overseas Institutional Visit Grant (£1,900), ESRC
October 2015	Travel Grant (£800), Guarantors of Brain
October 2015	Special Grant (£800), St. John's College, Oxford
May 2015	Research Training Support Grant (£600), ESRC
2014 - 2017	Full D.Phil. funding (£61,800), ESRC & St. John's College, Oxford

Invited talks

'Reimagining reinforcement learning' workshop, CoSyNe, Montreal
BEACON Seminar, University of Oxford
Emerging Neuroscientists Seminar Series, Sainsbury Wellcome Centre
Monitoring Molecules in Neuroscience, UNC Chapel Hill
Janelia conference: the Mechanistic Basis of Foraging
School of Psychology & Neuroscience Seminar, University of Glasgow
Physiology, Pharmacology, & Neuroscience Seminar, University of Bristol
SLAB Lab seminar, University of California, Santa Barbara
FENS 2020, Virtual Forum
9 th International Symposium on the Biology of Decision-Making, Oxford
Department of Psychology Seminar Series, Royal Holloway
Dudman Lab, HHMI Janelia
MSD D.Phil. Day, University of Oxford
Department of Psychology Seminar Series, University of York
Lecture Supper, St. John's College Oxford
D.Phil. Seminar Series, Experimental Psychology, University of Oxford

Selected Poster Presentations

- Grima, L. L., Guo, Y., Narayan, L., Hermundstad, A., & Dudman, J. T. (2025). *A global dopaminergic learning rate enables adaptive foraging across many options*. CoSyNe, Montreal, Canada.
- Grima, L. L., Guo, Y., Hermundstad, A., & Dudman, J. T. (2024). *Mesolimbic dopamine reflects rapid matching across many options*. Gordon Research Conference: Basal Ganglia, Ventura California, U.S.
- Grima, L. L. & Dudman, J. T. (2022). *Characterising foraging dynamics during naïve learning across many options in time and space*. Society for Neuroscience, San Diego, U.S.
- Grima, L. L., Akam, T., & Walton, M. E. (2021). Average reward rate shapes both tonic and phasic dopamine activity during patch foraging. Computational and Systems Neuroscience (CoSyNe) online conference.
- **Grima, L. L.**, Akam, T., & Walton, M. E. (2020). *Separable contributions of local and global environmental richness to mesolimbic dopamine signalling during foraging*. Virtual Dopamine (ViDA) online conference.
- Grima, L. L., Syed, E. C. J., Husain, M., & Walton, M. E. (2017). *Rapid dopamine transmission tracks and promotes reward-seeking actions*. FENS/SfN Summer School: Chemical Neuromodulation, Bertinoro, Italy. Poster prize awarded.
- Grima, L. L., Syed, E. C. J., Husain, M., & Walton, M. E. (2016). *D1 receptor stimulation causes impulsive action initiation and action selection*. Dopamine 2016, Vienna, Austria.
- Grima, L. L.,* Apps, M. A. J.,* & Husain, M. (2015). *Cognitive effort: subjective reward devaluation and risk sensitivity*. 5th International Symposium on Biology of Decision-Making, Paris, France.

Teaching and Supervision

2025	Scientists Teaching Science – 10 week online course
2021	Co-mentor, Janelia-Meyerhoff Undergraduate Summer Program
2017 - 2019	Visiting Lecturer, Brain and Behaviour, Royal Holloway University of London
2017 - 2018	Supervision of Sebastian Andersson and Freya Marijatta, M.Sc. Neuroscience projects
2015 - 2019	Tutor, Brain Anatomy Practical, Royal Holloway University of London
2015 - 2016	Supervision of visiting student Oliver Harmson
2015	Teaching and Learning Skills Course, University of Oxford

Professional Service

Nov. 2025	Conference co-organiser: Foraging conference, University of Birmingham
Feb. 2024	Conference co-organiser: 'Bridging diverse perspectives on the mechanistic basis of
	foraging', HHMI Janelia
2021-2023	Co-organiser of The Future of Foraging seminar series (online)
2016 - 2017	President of the Bryant Society for Experimental Psychologists, Oxford
2016 - 2017	ESRC doctoral training centre Scholars' Association Secretary, Oxford
2015 - 2017	Vice Chair of Graduate Joint Consultative Committee, Department of Experimental
	Psychology, Oxford
2011 - 2013	Psychology Student Representative, Royal Holloway University of London
Journal review	eLife, Neuropsychopharmacology, Journal of Neuroscience Research, Current
	Opinion in Behavioral Sciences, Journal of Experimental Psychology: General
Conference review	CoSyNe