

Elisa Galliano, PhD

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PROFILE

I lead a neuroscience laboratory studying neuronal plasticity and learning in the olfactory system, with a side interest in dopaminergic heterogeneity. I am equally passionate about education, mentorship, and open science.

ACADEMIC HISTORY

Oct 2024 -	Associate Professor Dept. of Development, Physiology and Neuroscience, University of Cambridge, UK
Oct 2020 – Sept 2024	Assistant Professor Dept. of Development, Physiology and Neuroscience, University of Cambridge, UK
May 2018- Sept 2020	Unestablished Lecturer Dept. of Development, Physiology and Neuroscience, University of Cambridge, UK
May 2014 – Apr 2018	Sir Henry Wellcome Postdoctoral Fellow Centre for Developmental Neurobiology, King's College London, UK – Grubb Lab Department of Molecular and Cellular Biology, Harvard University, USA – Murthy Lab
Nov 2013 – Apr 2014	Research Associate, Grubb lab, King's College London, UK
Jan 2009- Sept 2013	PhD in Neuroscience , Erasmus University Rotterdam, The Netherlands Thesis title "Questioning the cerebellar doctrine", Supervisor Prof Chris De Zeeuw
Oct 2006 – Sept 2008	Master in Neurobiology <i>cum laude</i> , University of Pavia, Italy
Oct 2003 – July 2006	Bachelor in Biology <i>cum laude</i> , University of Pavia, Italy

GRANTS, FELLOWSHIPS, AWARDS

✓ Fellowships and Grants as applicant

2024	Wellcome Trust Career Development Award
2022	MRC Mid-Range Equipment Grant, confocal microscope, co-applicant with Drs Poort & Beltramo
2022	BBSRC New Investigator Grant
2021	The Icelandic Research Fund research grant, co-applicant, Dr Petur Petursen main applicant
2020	Isaac Newton Trust / Wellcome Trust ISSF research grant
2019	The Royal Society Research Grant
2018	Sir Henry Wellcome Postdoctoral Fellowship
2013	Human Frontiers in Science Project Long-term Fellowship – declined
2007	Socrates-Erasmus Fellowship, Exchange Program Pavia/Rotterdam
2005-08	Institute of Advanced Studies (IUSS) Pavia Undergraduate Fellowship

✓ Fellowship and Grants as sponsor / mentor

2025	Gates Cambridge PhD studentship to Tess Stanley
2025	Rannis Icelandic Research Fund PhD grant to Sana Gadiwalla
2024	Junior Research Fellowship (4 years, stipendiary) from Homerton College to Dr Chloé Guillaume
2024	Harding Trust PhD studentship to Connor Doyle
2021	Jesus College Valluri-Rao PhD Scholarship to Harin Wijayathunga
2021	Wolfson-PDN PhD studentship to Ailie McWhinnie
2020	Cambridge Trust PhD studentship to Li Huang

✓ Notable Awards and prizes

- 2019 **Student-Led Teaching Award for best Undergraduate Supervisor** (Science and Technology), University of Cambridge and Cambridge Student Union (UK);
Nominated again for this award in 2020 and 2021
- 2016 Helmsley Scholarship to attend a Cold Spring Harbor Laboratory course (USA), awarded for the cross-disciplinary nature of my career
- 2015 “Italy made me” Award from Italian Ambassador in London, awarded to best early-career Italian life scientist in the UK
- 2014 Bolk Prize from the Dutch Anatomist Association for the best PhD thesis (€1,000)
- 2014 Ugo Basile Young Scientist prize, awarded at FENS 2014

RECENT INVITED TALKS, SYMPOSIA CONTRIBUTIONS, WORKSHOPS

- 2026 Neuroscience Interest Group seminar series, Francis Crick Institute London
- 2025 Ludwig Maximilian University of Munich Neuroscience seminar series, host Prof Keys
- 2025 University of Torino Neuroscience seminar series, host Prof De Marchis
- 2024 International Symposium on Olfaction and Taste, Reykjavik, Iceland; speaker and symposium co-chair
- 2024 UCL Neuroscience, Physiology and Pharmacology Department, host Prof Beato
- 2024 University of Sheffield, talk at the Division of Development, Regeneration, Neurophysiology, Host Dr Lin
- 2023 German Physiological Society Annual meeting, symposium talk, Berlin, DE
- 2023 European Chemoreception Research Organization Annual meeting, symposium talk Nijmegen, NL
- 2023 Erasmus University Rotterdam, talk at the Neuroscience Department, Host Dr Gao
- 2023 Kavli Institute for Theoretical Physics “Statistical Learning in the Brain” 6-weeks Workshop and associated “Timescales of Plasticity” conference, Santa Barbara, USA
- 2022 Warwick University talk at the Biological Society, invited and hosted by final year undergraduates
- 2022 Cambridge Neuroscience “New Horizons”, Annual meeting, symposium talk, Cambridge, UK
- 2022 UK Semiochemistry Network Annual meeting, symposium chair, Cambridge, UK
- 2021 EMBO Axons Conference, symposium talk, scheduled for Tuscany but moved online
- 2021 Kyushu University seminar series, talk hosted by Prof Imai, Fukuoka, JP (online version)
- 2021 Adrian Seminar Series, PDN Department, talk hosted by Dr Jones, Cambridge, UK
- 2020 EUNIC Berlin, public lecture hosted by the British Council at the Czech Centre Berlin, DE
- 2019 “David Marr, 50 years on” Conference, Organizer and Scientific Program Chair, Cambridge, UK
- 2019 British Neuroscience Association Annual meeting, symposium co-chair and speaker, Dublin, IE
- 2018 Society for Neuroscience Annual meeting, symposium talk, San Diego, USA
- 2018 Bonn International Graduate School in Neuroscience, Plenary Lecture, Bonn, DE
- 2018 UK Semiochemistry Network Annual meeting, symposium talk, Cambridge, UK
- 2018 Cornell University, Department of Psychology, talk hosted by Profs Cleland and Linster
- 2018 Young Embryologists Network Annual meeting, symposium talk, London, UK
- 2018 Neureka! and Sainsbury Wellcome Centre student-organized “What is the quantum of neural computation?” Joint Symposium, seminar, London, UK

SUPERVISION AND MENTORING OF EARLY CAREER RESEARCHERS

- Since the later stages of my PhD, I have directly supervised a variety of people across different career stages including 35 students (15 undergraduates, 10 master, 10 PhD), 3 postdocs, and 2 research assistants.
- I am/have been formal advisor to 6 PhD students, and I have mentored 2 postdocs via the University of Cambridge Postdoc Academy scheme.

- During the Covid19 pandemic, I co-lead a career development scheme for 23 Cambridge Neuroscience postdocs, for which I delivered seminars on how to design virtual lectures/workshops, helped them deliver them, and mentored those preparing applications for lectureships (4 of which were successful).

ARTICLES, DATASETS, PREPRINTS

1. Doyle C, Wang J, **Galliano E**[✉], Guillaume C (2025) A low-cost and open-source olfactometer to precisely deliver single odours and odour mixtures. *bioRxiv* 2025.09.11.675563; doi: <https://doi.org/10.1101/2025.09.11.675563>
2. **Galliano E**[✉], Keck T (2025) Interactions between homeostatic plasticity and statistical learning: A role for inhibition. *Current Opinion in Neurobiology*, 93:103065, Systems Neuroscience issue on Statistical Learning
3. Zhang Y, Pakulat LM, Takács S, Campbell L, **Galliano E**, Hrabovszky E, Colledge WH, Jones S (2025) Neuronal plasticity at puberty in mouse hypothalamic Kiss1 neurons that control fertility. *Proc Natl Acad Sci U S A*. 2025 Oct 28;122(43):e2512855122. doi: 10.1073/pnas.2512855122.
4. Gadiwalla S, Guillaume C, Huang L, White SJB, Basha N, Petersen PH, **Galliano E**[✉] (2025) Ex vivo functional characterization of mouse olfactory bulb projection neurons reveals a heterogenous continuum. *eNeuro*, 12 (3) ENEURO.0407-24.2025.
→ **Full Dataset deposited on Apollo** (doi.org/10.17863/CAM.114886)
5. Huang L, Hardyman F, Edwards M, **Galliano E**[✉] (2024) Deprivation-induced plasticity in the rodent's early visual, auditory, and olfactory circuits. *eNeuro*, ENEURO.0435-23.2023. **Corresponding author**.
→ **Full Dataset deposited on Apollo** (doi.org/10.17863/CAM.104411)
6. Lau MYH, Gadiwalla S, Jones S, **Galliano E**[✉] (2024) Characterization of identified dopaminergic neurons in the midbrain and olfactory bulb. *Eur J Neurosci*. doi: 10.1111/ejn.16239. **Shared corresponding author**.
→ **Full Dataset deposited on Apollo** (doi.org/10.17863/CAM.102763)
7. **Galliano E**[✉], Hahn C, Browne L, Rodriguez Villamayor P, Tufo C, Crespo A and Grubb MS. (2021) Brief sensory deprivation triggers cell type-specific structural and functional plasticity in olfactory bulb neurons. *Journal of Neuroscience*; doi.org/10.1523/JNEUROSCI.1606-20.2021. **Shared corresponding author**. *Cover of the March 10th 2021 issue. 20 citations*.
→ **Full Dataset deposited on KCL repository** (doi.org/10.18742/RDM01-757), 240 downloads.
8. Luppi AI, Newton CC, Folsom L, **Galliano E**[✉], Romero-Garcia R. (2021) Ten simple rules for aspiring graduate students. *PLOS Comp Bio*; 17(8), e1009276. Editorial. **Shared corresponding author**. 1 citation, 2053 downloads.
9. **Galliano E**[✉], Schonewille M, Peter S, Rutteman M, Houtman S, Jaarsma D, Hoebeek FE, De Zeeuw CI (2018) Impact of NMDA Receptor Overexpression on Cerebellar Purkinje Cell Activity and Motor Learning. *eNeuro*, ENEURO.0270-17.2018; **Shared corresponding author**. 10 citations.
10. **Galliano E**[✉], Franzoni E, Breton M, Chand AN, Byrne DJ, Murthy VN, Grubb MS. (2018) Embryonic and postnatal neurogenesis produce functionally distinct subclasses of dopaminergic neuron. *eLife*, 7:e32373 doi: 10.7554/eLife.323. **Shared corresponding author**. 34 citations.
→ **Full Dataset deposited on Dryad** (doi.org/10.5061/dryad.b5hg8d6), 90 downloads.
11. Chand AN, **Galliano E**, Chesters RA, Grubb MS (2015) A distinct subtype of dopaminergic interneuron displays inverted structural plasticity at the axon initial segment. *J Neuroscience*, 35(4):1573-90. 84 citations.
12. D'Angelo E, **Galliano E**, De Zeeuw CI. (2015) The olivo-cerebellar system. *Frontiers*. Editorial. 8 citations.
13. **Galliano E**, De Zeeuw CI. (2014) Questioning the cerebellar doctrine. In *Progress in Brain Research, Cerebellar Learning Volume*, 210:59-77. Book chapter. 27 citations.
14. **Galliano E**, Gao Z, Schonewille M, Todorov B, Simons E, Pop A, D'Angelo E, van den Maagdenberg AM, Hoebeek F, De Zeeuw CI. (2013) Silencing the majority of cerebellar granule cells uncovers their essential role in motor learning and consolidation. *Cell Reports*, Apr 25;3(4):1239-51. 134 citations.

15. **Galliano E**, Potters JW, Elgersma Y, Wisden W, Kushner SA, De Zeeuw CI, Hoebeek FE (2013) Synaptic transmission and plasticity at inputs to murine cerebellar Purkinje cells are largely dispensable for standard non-motor tasks. *J Neuroscience*, Jul 31;33(31):12599-618. *49 citations*.
16. **Galliano E**, Baratella M, Sgritta M, Ruigrok TJH., Haasdijk ED, Hoebeek FE, D'Angelo E, Jaarsma , De Zeeuw CI. (2013) Anatomical investigation of potential contacts between climbing fibers and cerebellar Golgi cells in the mouse. *Frontiers in Neural Circuits*, 7:59. *22 citations*.
17. Badura A, Schonewille M, Voges K, **Galliano E**, Renier N, Gao Z, Witter L, Hoebeek FE, Chedotal A, De Zeeuw CI. (2013) Climbing fiber input shapes reciprocity of Purkinje cell firing. *Neuron*, May 22;78(4):700-13. *114 citations*.
18. **Galliano E**, Mazarrello P, D'Angelo E. (2010) Discovery and rediscoveries of Golgi cells. *J Physiol*. 588(Pt 19):3639-55. Review. *55 citations*.

NOTEWORTHY ACADEMIC SERVICE, NATIONAL AND INTERNATIONAL ESTEEM

2025-ongoing	Master in Basic and Translational Neuroscience, University of Cambridge, course co-Director
2023- ongoing	Member and since 2024 co-chair of the Member of the Data Working Group of the ALBA Network, which champions evidence-based actions to promote EDI in brain sciences
2023-2026	Appointment to BBSRC Pool of Experts, Panels A and C member
2022	Hiring panel member for 4 Neuroscience Assistant Professorships, PDN Department, Cambridge
2021 – ongoing	Member of the Natural Sciences and Medical/Veterinary Science Curriculum Reviews, working groups on Integrated Learning Objectives and Assessment, University of Cambridge
2021-2022	School of Biological Sciences, University of Cambridge, Neuroscience Theme Lead
2020- ongoing	Fellow and Director of Studies for Biological Natural Sciences, Fitzwilliam College Cambridge
Summer 2020	Volunteer scientist at the AstraZeneca/GSK/Cambridge University Covid19 testing facility
2020	Federation of European Neuroscience Society (FENS), Member of the Host Society Committee for Glasgow 2020, outreach and public engagement portfolio
2019-ongoing	Grant and fellowship reviewer for MRC and BBSRC (UK), FWO (BE)
2019-2021	Co-founder and co-organizer of the Life Sciences Early PIs Network, University of Cambridge
2019	“Artificial and Biological Cognition” Programme committee member, Cambridge
2012-13	Co-Editor of the Frontiers Neural Circuits special issue “The Olivo-Cerebellar System”
2012-ongoing	Peer-reviewer for international academic journals (neuroscience-focused)
2006	Promoter and organizer of the conference “An informal Golgian Symposium”, Pavia

TEACHING AND EXAMINING

I regard teaching and training the next generation of scholars as fundamental parts of the academic mission. Already before joining Cambridge and taking up my first official academic post, I have taught in six undergraduate courses as an instructor, guest lecturer, and teaching assistant in four universities (Pavia, Rotterdam, KCL, Harvard).

✓ Lecture design and delivery

- Synaptic transmission, MPhil in Basic and Translational Neuroscience, 2020/21-2024/25 [1 extended lecture]
- Sensory Physiology, Sensor Technologies MRes, 2023/24-ongoing [1 extended lecture]
- Olfactory physiology, third year undergrads, Cambridge, AY 2017/18-2022/23 [3 lectures, 1 workshop]
- Plasticity in sensory and motor circuits, third year undergrads, Cambridge, AY 2018/19-ongoing [Introduction to the course with Dr Jones, 4 lectures, 1 Q&A session]
- How to make posters and figures, third year undergrads, Cambridge, 2020/21-ongoing [1 workshop]
- Chemical senses, second year pre-clinical medics/vets, U Cambridge, AY 2021/22-ongoing [1 lectures]
- Synaptic transmission, second year undergrads, AY 2025/26-ongoing [3 lectures]

- Sensing the Environment, first year undergrads, part of the year-long course Physiology of Organisms, Cambridge, AY 2018/19-ongoing [4 lectures, covering all sensory modalities in plants and animals]
 - Neurobiology of Learning and Memory, Harvard University, third year neurobiology concentrators, AY 2016/17 [year-long weekly course for a small group of 12 students]
 - Synaptic transmission, Erasmus University Rotterdam, first year Master in Neuroscience, 2011-2013
 - History and philosophy of science, Institute of Advances Studies, University of Pavia, AY 2007/08
- ✓ Teaching Demonstrator for lab-based practical classes
- Modern techniques in neuroscience for morphological and physiological investigation, AY2020/21-2024/25 – design and delivery of two fully online labs on the Lt platform for MPhil in Basic and Translational Neuroscience
 - Brain histology, second year undergrads, Cambridge, AY 2018/19-ongoing – I moved it online in April 2020, excellent feedback, and then reshaped as a hybrid class in April 2022
 - Human neuroanatomy for pre-clinical medics: Cambridge, AY 2017/18-ongoing, King’s College London AY 2014/15 and 2015/16, and Erasmus University Rotterdam AY 2012/13 and 2014/13
 - Ion Channels in Synaptic and Neural Circuit Physiology, Cold Spring Harbour Laboratories, June 2017
 - Cellular neurophysiology, Erasmus University Rotterdam, AY 2012/13 and 2014/13
- ✓ Life-long learning
- Co-developer and termly live-session delivery for the Cambridge Advanced Online Functional Neuroanatomy course led by Dr Jones and accredited by Society of British Neurological Surgeons
- ✓ Examiner / Assessor
- HHMI/University of Cambridge and BBSRC Doctoral Training Program assessor and advisor; PhD examiner for six theses (Cambridge, KCL, UCL, Erasmus University, University of Torino)
 - First-year PhD registration oral examination, 9 students (Cambridge)
 - MPhil examiner, thesis + viva, for 4 students (Cambridge, Kavli Institute for Systems Neuroscience)
 - Undergraduate Examiner and Assessor, University of Cambridge, AY 2017/18-ongoing: setting exam questions for own lectures, marking neuroscience and physiology papers, examining third year Experimental Project reports, examining pre-clinical neuroscience for medics and vets
 - Neurobiology Tutorials, Harvard University, AY 2016/17

PUBLIC ENGAGEMENT, OUTREACH, WIDENING PARTICIPATION

2023	Laboratory placement for sixth formers from low participation areas, in2science programme
2022-ongoing	Women in STEM programme, Fitzwilliam & St Anne’s Oxford, online lecture and Q&A
2021	Admission work for the “Experience Postgrad Life Sciences” widening access scheme, Cambridge
2021	Cambridge Widening Access to Medicine Society (CamWAMS) online lecture and Q&A
2020- ongoing	Biological Natural Sciences Admissions lead, Fitzwilliam College Cambridge
2019	Two podcasts on olfaction with The Naked Scientists
2018-2019	Organizer of “Olfactory Cocktail Party” outreach activity for Cambridge Science Week
2017-2018	Co-Organiser of 3 debates on neuroscience topics, w/ British Neuroscience Association
2017	Interactive neuroscience teaching, Royal College of Psychiatrists, Gatsby/Wellcome Trust
2014-2018	The Brilliant Club Scholars Programme, design and 6x delivery neurobiology course for at high school students from low-income backgrounds

CV updated in March 2026