

Dimitar Kostadinov, PhD

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King's College London
London, United Kingdom

EDUCATION

- 2009-15 **Harvard University**, Cambridge, MA, USA
PhD, Neuroscience
- 2005-9 **McGill University**, Montreal, QC, Canada
BSc in Physiology, *First Class Honours*

RESEARCH POSITIONS

- 2023- **King's College London**, London, UK
Group Leader, Centre for Developmental Neurobiology
Wellcome Trust Research Fellow
- 2015-23 **University College London**, London, UK
Postdoctoral Research Associate, Wolfson Institute for Biomedical Research
Supervisor: Michael Häusser, PhD
- 2009-15 **Harvard University**, Cambridge, MA, USA
Graduate student, Program in Neuroscience
Supervisor: Joshua Sanes, PhD
- 2008-9 **McGill University**, Montreal, QC, Canada
Research Assistant, Department of Physiology
Supervisor: Ellis Cooper

FUNDING

- 2023- **Wellcome Trust Career Development Award**
Role: Primary investigator
- 2016-18 **EMBO Long-Term Postdoctoral Fellowship**
Role: Primary investigator
- 2012-15 **NIH Predoctoral National Research Service Award**
Role: Primary investigator

AWARDS

- 2023 **Travel Award**, Guarantors of Brain
- 2020 **Early Career Neuroscience Prize**, University College London
- 2019 **Travel Award**, Guarantors of Brain
- 2019 **Travel Grant**, The Physiological Society
- 2012 **Meselson Prize**, Harvard University
- 2006 **Principal's Student Athlete Honour Roll**, McGill University

PUBLICATIONS

- Beau M*, Herzfeld DJ*, Naveros F*, Hemelt ME*, D'Agostino F*, Oostland M*, Sánchez-López A*, Chung YY, Maibach M, Kyranakis S, Stabb HN, Martínez Lopera MG, Lajko A, Zedler M, Ohmae S, Hall NJ, Clark BA#, Cohen D#, Lisberger SG#, **Kostadinov D**#, Hull C#, Häusser M#, Medina JF# (2025) [A deep-learning strategy to identify cell types across species from high-density extracellular recordings](#). *Cell* 188(8): 2218-34.
- Carolan J, Land MA, Lu X, Beau M, **Kostadinov D**, St-Pierre F, Clark BA, Häusser M (2025) All-optical voltage interrogation for probing synaptic plasticity *in vivo*. *Nature Communications*.
- Kostadinov D**#, Häusser M (2022) [Reward signals in the cerebellum: origins, targets, and functional implications](#). *Neuron* 110(8): 1290-1303. [Perspective]

4. Sezener E*, Grabska-Barwińska A*, **Kostadinov D***, Beau M, Krishnagopal S, Budden D, Hutter M, Veness J, Botvinick M, Clopath C, Häusser M, Latham PE (2022) [A rapid and efficient learning rule for biological neural circuits](#). *bioRxiv*
 5. Steinmetz NA*, Aydin Ç*, Lebedeva A*, Okun M*, Pachitariu M*, ...**Kostadinov D**, ...Harris TD (2021) [Neuropixels 2.0: A miniaturized high-density probe for stable, long-term brain recordings](#). *Science* 372(6539).
 6. **Kostadinov D**[§], Beau M, Blanco-Pozo M, Häusser M (2019) [Predictive and reactive reward signals conveyed by climbing fiber inputs to cerebellar Purkinje cells](#). *Nature Neuroscience* 22(6): 950-62.
 - Preview by J. Medina: [Teaching the cerebellum about reward](#)
 7. **Kostadinov D**, Mathy A, Clark BA (2019) [Dynamics of the Inferior Olive Oscillator and Cerebellar Function](#). In: Manto M, Gruol D, Schmähmann J, Koibuchi N, Sillitoe R (eds) *Handbook of the Cerebellum and Cerebellar Disorders*. Springer, Cham. [Book Chapter]
 8. Ing-Esteves S, **Kostadinov D**, Marocha J, Sing AD, Joseph KS, Laboulaye MA, Sanes JR, Lefebvre JL (2018) [Combinatorial effects of alpha-and gamma-protocadherins on neuronal survival and dendritic self-avoidance](#). *Journal of Neuroscience* 38(11): 2713-29.
 9. Peng YR, Tran NM, Krishnaswamy A, **Kostadinov D**, Martersteck EM, Sanes JR (2017) [Satb1 regulates contactin 5 to pattern dendrites of a mammalian retinal ganglion cell](#). *Neuron* 95(4): 869-83.
 10. **Kostadinov D**, Sanes JR (2015) [Protocadherin-dependent dendritic self-avoidance regulates neural connectivity and circuit function](#). *eLife* 4: e08964.
 - Preview by A. Garrett and R. Burgess: [Self-awareness in the retina](#)
 11. Lefebvre JL, **Kostadinov D**, Chen WV, Maniatis T, Sanes JR (2012) [Protocadherins mediate dendritic self-avoidance in the mammalian nervous system](#). *Nature* 488(7412): 517-21.
- *Co-first author, #Co-senior author, §Corresponding author

SELECTED SEMINARS AND PRESENTATIONS

Mar 2025	Cerebellum Seminars , Johns Hopkins University, USA [Video]
Nov 2024	Circuit Biology , Lundbeck A/S, Denmark
Sept 2024	External Seminar Series , Allen Institute for Neural Dynamics, USA
Jan 2023	Neurophysiologisches Seminar , Universitätsklinikum Essen, Germany
May 2022	Institut du Cerveau – Paris Brain Institute (ICM) , France
Mar 2022	Wu Tsai Institute , Yale University, USA
Dec 2021	Centre for Developmental Neurobiology , King's College London, UK
Dec 2021	Department of Neurobiology , Northwestern University, USA
Sep 2021	SickKids Hospital and Department of Physiology , University of Toronto, Canada
Jul 2021	Department of Neuroscience, Physiology, and Pharmacology , UCL, UK
Mar 2020	Cortex Club , University of Oxford, UK
Dec 2019	Google Deepmind , UK
Sep 2019	Neuroscience Department , Institute Pasteur, France
Nov 2018	Department of Physiology , McGill University, Canada
Jun 2016	NeuroTuscany , Italy
Sept 2012	Program in Neuroscience Retreat , Harvard University, USA

SELECTED CONFERENCE PRESENTATIONS

Jul 2025	Gordon Research Conference: Cerebellum , Switzerland [Oral presentation]
Oct 2024	Cerebellar predictive encoding in health and disease (Mini-symposium), Society for Neuroscience Annual Meeting, USA [Oral presentation]
Aug 2023	Gordon Research Seminar: Cerebellum , USA [Poster]
Nov 2022	Society for Neuroscience Annual Meeting , USA [Poster]
May 2022	Dendrites 2022 , EMBO Workshop, Crete, Greece [Oral presentation]
Jul 2019	Gordon Research Seminar: Cerebellum , Switzerland [Oral presentation]
May 2019	10th International Meeting of the Society for Research on Cerebellum and Ataxia , University of Sheffield, UK [Oral presentation]

Nov 2018 **Society for Neuroscience Annual Meeting**, USA [Poster]
 Aug 2017 **Gordon Research Seminar: Cerebellum**, USA [Poster]
 Nov 2014 **Society for Neuroscience Annual Meeting**, USA [Poster]
 Oct 2009 **Society for Neuroscience Annual Meeting**, USA [Poster]

SUPERVISION

PhD students (King's College London)

2025- Ceren Arslan, MRC-ITND PhD programme (Primary supervisor)
 2024- Subham Ganguly, MRC-ITND PhD programme (Primary supervisor)
 2024- Carolina Soares, LIDo PhD programme (Primary supervisor)
 2024- Nina Treder, MRC-ITND PhD programme (Third supervisor)

Masters and Undergraduate students (King's College London)

2024 Camilla Thormod Hjort, MSc in Applied Neuroscience

Supervision of students prior to joining King's

2018-24 Maxime Beau, *PhD thesis project*, Neural Computation Laboratory, UCL
 2021-23 Sam Clothier, *MSci in Neuroscience*, UCL
 2021-23 Mátyás Váradi, *MSci in Neuroscience*, UCL
 2019-20 Gabriela Martinez, *MSc in Machine Learning*, CentraleSupélec, Paris-Saclay
 2017-19 Yooni Chung, *MSc in Neuroscience*, UCL
 2016-17 Marta Blanco-Pozo, *MSc in Neuroscience*, UCL
 2015-16 Charlotte Piette, *MSc in Brain and Mind Science*, Ecole normale supérieure
 2012 Olivia Ho-Shing, *PhD rotation project*, Sanes Lab, Harvard University

PROFESSIONAL ACTIVITIES

Teaching

2025 Population recordings and manipulation workshop, *MRC-ITND PhD program*, KCL
 Long-range connectivity and calcium imaging, *MSc Neuroscience*, KCL
 2023-24 Two-photon microscopy and optogenetics, *SWC PhD programme*, UCL
 2018-19 Course Assistant, *Neuropixels Training Course*, UCL
 2015 Retinal neurophysiology, *Cellular Basis of Brain Function*, UCL
 2013 Teaching Fellow, *Systems Neuroscience*, Harvard University
 2011 Teaching Fellow, *Neurobiology of Behavior*, Harvard University
 2008-9 Teaching assistant, *Mammalian Physiology*, McGill University

Ad-hoc reviewing

Cell, eLife, Journal of Neuroscience, Nature Communications, Nature Neuroscience, Neuron, PLOS Biology, PNAS, Science, Scientific Reports

Society memberships

Society for Neuroscience, British Neuroscience Association, The Physiological Society

Search committee panel member

King's Prize Fellowship (2025), King's Interdisciplinary Science Physical Sciences of Life (2025), UKRI Future Leaders Fellowship (2025 KCL shortlisting)

Departmental service

Host: Centre for Developmental Neurobiology Internal Seminars (2024-)

Mock interview panels: Wellcome Mental Health Award (Neuroscience), Wellcome Discovery Award, Wellcome Career Development Award, Wellcome Early Career Award, BBSRC Discovery Fellowship, Epilepsy Research Institute Emerging Leader Fellowship