

Dardo N. Ferreiro

EDUCATION

- 2018 **Ph.D. in Neuroscience** **Federal University of Rio Grande do Norte (Brazil)**
Orientation selectivity of neurons and their spatial layout in cat and agouti visual cortex.
Performed *in-vivo* multielectrode electrophysiology and intrinsic signal imaging recordings, in the largest ever recorded rodent, I proved that the presence of orientation preference maps and pinwheels does not depend on brain size.
- 2012 **M.Sc. in Biology** **University of Buenos Aires (Argentina)**
Molecular basis of the resistance to nitrosative stress in Mycobacterium tuberculosis.
Through computer modeling, bioinformatics and in-silico simulations of protein dynamics, I described the enzymatic active site of a target for drug development against tuberculosis.

RESEARCH POSITIONS

- Since 2026 **Assistant Professor** **Universidad Torcuato Di Tella**
Neuroscience department, Business School
- 2019-2025 **Post-Doctoral Researcher** **Ludwig-Maximilians-University**
Joint appointment at the Neurobiology and Psychology Departments.
- 2018-2019 **Post-Doctoral Researcher** **Brain Institute @ Federal University of Rio Grande do Norte**
Supervised by Kerstin E. Schmidt
- 2014-2018 **Doctoral Researcher** **Brain Institute @ Federal University of Rio Grande do Norte**
Supervised by Kerstin E. Schmidt
- 2010-2012 **Research Assistant** **Biochemistry Dept @ University of Buenos Aires**
Supervised by Marcelo A. Marti
- 2008-2010 **Research Assistant** **Inorganic Chemistry Dept @ University of Buenos Aires**
Supervised by Darío A. Estrin

PUBLICATIONS

- 2025 **Visual nudging of navigation strategies improves frequency discrimination during auditory-guided locomotion**
Frontiers in Neuroscience
Malzacher A, Hilbig T, Pecka M, **Ferreiro DN***
*Corresponding author
- 2023 **Compromising improves forecasting**
Royal Society Open Science. doi: 10.1098/rsos.221216
Ferreiro DN*, Deroy O, Bahrami B
*Corresponding author
- 2023 **Temporal hyper-precision of brainstem neurons alters spatial sensitivity of binaural auditory processing with cochlear implants**
Frontiers in Neuroscience. doi: 10.3389/fnins.2022.1021541
Muller M, Hu H, Dietz M, Beiderbeck B, **Ferreiro DN**, Pecka M
- 2022 **An active sensing paradigm for studying human auditory perception**
Frontiers in Integrative Neuroscience. doi: 10.3389/fnint.2022.892951
Ferreiro DN*, Winhart VR, Grothe B, Bahrami B, Pecka M
*Corresponding author

- 2022 **Democratic forecast: Small groups predict the future better than individuals and crowds**
Journal of Experimental Psychology: Applied. doi: [10.1037/xap0000424](https://doi.org/10.1037/xap0000424)
 Dezechache G, Dockendorff M, **Ferreiro DN**, Bahrami B, Deroy O
- 2021 **Source identity shapes spatial preference in primary auditory cortex during active navigation**
Current Biology. doi: [10.1016/j.cub.2021.06.025](https://doi.org/10.1016/j.cub.2021.06.025)
 Amaro D, **Ferreiro DN**, Grothe B, Pecka M
- 2021 **Helping the waiter to hold his tray: rigid haptic linkage promotes inter-personal motor coordination**
Quarterly Journal of Experimental Psychology. doi: [10.1177/17470218211009082](https://doi.org/10.1177/17470218211009082)
Ferreiro DN, Frith CD, Bahrami B
- 2020 **Sensory Island Task (SIT): A new behavioral paradigm to study sensory perception and neural processing in freely moving animals**
Frontiers in Behavioral Neuroscience. doi: [10.3389/fnbeh.2020.576154](https://doi.org/10.3389/fnbeh.2020.576154)
Ferreiro DN*, Amaro D*, Schmidtke D, Sobolev A, Gundi P, Belliveau L, Sirota A, Grothe B, Pecka M.
 *Contributed equally.
- 2020 **Spatial clustering of orientation preference in primary visual cortex of the large rodent Agouti**
iScience. doi: [10.1016/j.isci.2020.101882](https://doi.org/10.1016/j.isci.2020.101882)
Ferreiro DN, Conde-Ocazonez SA, Patriota JHN, de Souza LC, de Oliveira MF, Wolf F, Schmidt KE
- 2013 **The key role of water in the dioxygenase function of Escherichia coli flavohemoglobin**
Journal of Inorganic Biochemistry. doi: [10.1016/j.jinorgbio.2012.10.015](https://doi.org/10.1016/j.jinorgbio.2012.10.015)
Ferreiro DN, Boechi L, Estrin DA, Martí MA
- 2011 **p38g activation triggers dynamical changes in allosteric docking sites**
Biochemistry. doi: [10.1021/bi1007518](https://doi.org/10.1021/bi1007518)
 Rodriguez Limardo RG*, **Ferreiro DN***, Roitberg AE, Martí MA, Turjanski AG.
 *Contributed equally.

GRANTS, FELLOWSHIPS AND AWARDS

- 2023 **Naturalistic neuroscience of social cognition** Ludwig-Maximilians-University
 Research Cooperation Program: aimed 'to promote and support research collaboration between LMU Munich and New York University' (**14480 euro, lead-applicant**).
- 2022 - 2023 **Neurobiology of teaching in social learning** Ludwig-Maximilians-University
 Excellence Junior Researcher Fund: aimed 'to provide ideal research and training conditions for outstanding early-career researchers' (**32000 euro, single applicant**).
- 2019 - 2021 **Biomentoring Program Awardee** Ludwig-Maximilians-University
 A mentoring program to support 'highly-promising junior scientists in developing their academic career' (**10000 euro, single applicant**).
- 2018 **Young Investigator training Program Awardee** Germany
 Attendance to the 11th FENS Forum of Neuroscience, Berlin. Short stay at the Neurobiology division, at Ludwig-Maximilians University, Munich, Germany.
 Funded by IBRO-FENS (**2600 euro, single applicant**).

- 2016 **Scholarship for travel, registration and full board** **Argentina and Uruguay**
Funded by the 'Latin American Center for Interdisciplinary Training' to attend the 3rd Latin American School of Neuroethology
- 2016 **Best project prize** **São Paulo, Brazil**
VI Latin American School on Computational Neuroscience (LASCON)
Project: "Simulating feature selection in a neural model of a visual cortex hypercolumn".
Ferreiro DN, Herrera D and Rodrigues YE
- 2012 **Fellowship for undergraduate research project** **University of Buenos Aires**
Funded by the FP7 international collaboration initiative from the European Commission
- 2011 **Scholarship for travel, registration and full board** **Obergurgl, Austria**
Funded by the European Science Foundation to attend the conference Charge transfer in Biosystems
- 2008-2010 **Scholarship for undergraduate research project** **University of Buenos Aires**
Funded by the National Research Council

INVITED TALKS

- 2025 **Leader-follower dynamics emerge from expertise imbalance during foraging**
Annual meeting of the Ethological Society @ Tutzing, Germany
- 2023 **Naturalistic behaviors for studying object identification in auditory cortex**
Symposium: Physiology and Psychophysics of Predictive Auditory Scene Analysis and Object Formation
185th Meeting of the Acoustical Society of America @ Sydney, Australia
- 2023 **Behavioural and neural correlates of auditory perception in gerbils and humans**
Perception and Cognition Seminar
Center for Math, Computation and Cognition @ Universidade Federal do ABC, Brazil
- 2023 **Social interactions during task learning in freely moving gerbils**
Learning and decision-making workshop
Organised by Stefano Palminteri @ Max Planck Institute for Human Development, Berlin, Germany
- 2023 **Auditory psychophysics in freely moving humans**
Symposium: Studying natural behavior
Organised by Dan Sanes @ New York University, USA
- 2022 **Identifying sounds**
Brain Awareness Week
National Neuroscience Society @ Carol Davila University, Romania
- 2021 **Spatial tuning of auditory cortex neurons is modulated by sound source identity**
Brains and Bagels Seminar
Organised by Ruth Litovsky @ University of Wisconsin-Madison, USA
- 2019 **Does a large rodent brain have visual orientation maps?**
Neurolunch
Computational Biology Department @ Ludwig-Maximilians-University, Germany
- 2016 **Visual cortex functional response clustering in cats and agoutis**
2nd Brain Institute Annual Symposium
Brain Institute @ Federal University of Rio Grande do Norte, Brazil
- 2016 **Visual cortex responses of cats and agoutis: an electrophysiological comparison**
12th International Congress of Neuroethology
International Society for Neuroethology @ Montevideo, Uruguay

