



Isa Fernandes Mota

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Education

2020-2023	MSc in Biomedical Research at University of Lisbon/ Instituto de Medicina Molecular João Lobo Antunes (iMM)
2017-2020	BSc in Biochemistry at University of Coimbra

Work experience

01/2025-Present	Researcher at Isaura Martins' Lab, CIIS Exploring the role of pericytes as metabolic regulators after spinal cord injury.
01/2025-Present	Visiting Researcher at Leonor Saúde's Lab, GIMM Exploring the role of pericytes as metabolic regulators after spinal cord injury.
06/2024-11/2024	Research Fellow at Margarida Serra's Lab, iBet iPSCs differentiation into cardiac fibroblasts in bioreactors within BravE European project. R&D industry services for Takeda Pharmaceuticals.
10/2023-04/2024	Research Fellow at Rui Oliveiras' Lab, IGC Analysis of brain activation networks in artificially selected social zebrafish, under the orientation of Dr. Rui Oliveira and Dr. Magda Teles.
01/2023-08/2023	Science Communicator at Ciência Viva - Agência Nacional para a Cultura Científica e Tecnológica Promote pedagogical activities for the lay public in the scope of various scientific fields.
09/2021-05/2023	Master's Project at Vanessa Morais and Ana Sebatião's Labs, iMM Characterization of the metabolic profile of differentiated cells derived from Subventricular Zone Neural Stem Cells, under the orientation of Dr. Vanessa Morais and Dr. Sara Xapelli.
02/2020-06/2020	Bachelor's Project at CIBIT, ICNAS Behavior tests with sensory stimulation and determination of the estrous cycle phase in mice, under the orientation of Dr. João Martins, at Miguel Castelo-Branco's Lab.
09/2019-12/2019	Trainee at Laboratory of Biophysics, University of Coimbra Preparation of hippocampus slices and handling of fluorescence microscopy, under the orientation of Dr. Emília Ferreira.

Publications

- > Soares, R., Lourenço, D. M., **Mota, I. F.**, et al. (2024). Lineage-specific changes in mitochondrial properties during neural stem cell differentiation. *Life Science Alliance*, 7(7).

Technical Expertise

- > Mouse handling
- > Spinal cord injury surgery
- > qPCR
- > Western Blot
- > Cell culture
- > Magnetic Activated Cell Sorting (MACS)
- > Immunofluorescence
- > Microscopy
- > Metabolic analysis

Computer skills

- > Adobe Illustrator
- > Adobe Photoshop
- > GraphPad Software
- > Agilent Seahorse Wave software
- > ZEN microscopy software
- > ImageJ

Languages

- > Portuguese ●●●●●
- > English ●●●●●
- > Spanish ●●●○○

- > Miranda, C.F., Pessoa, A., Batista, M., **Mota, I. F.** et al. (2021) ROS Signals Induced by Mushrooms Phenolic Compounds Produced from Lignocellulosic Biomass. *Waste and Biomass Valorization*, 12, 3027-3033.

Posters

- > **I. F. Mota**, D. Neves-Silva, M. Pires, L. Saúde, I. Martins, Unraveling the Role of Pericytic IDOL in Lipid dysfunction after Spinal Cord Injury. Presented at: Azores International Meeting on Spinal Cord Injury; October 2025; Azores, Portugal
- > **I. F. Mota**, R. Soares, A. M. Sebastião, S. Xapelli, V. A. Morais, Characterization of the metabolic profile of differentiated cells derived from Subventricular Zone Neural Stem Cells. Presented at: EpiEpiNet 3rd Annual Meeting; September 2022; Lisbon, Portugal
- > R. Soares, **I. F. Mota**, D. M. Lourenço, A. M. Sebastião, S. Xapelli, V. A. Morais, Modulation of postnatal neural stem cell fate: role of Mitochondrial Dynamics and Bioenergetics. Presented at: 4th ISN-JNC Flagship school "Brain Metabolism in Health and Disease"; September 2022; Schmerlenbach, Germany
- > R. Soares, **I. F. Mota**, D. M. Lourenço, A. M. Sebastião, S. Xapelli, V. A. Morais, Disentangling the role of Mitochondrial Dynamics in the context of adult neural stem cell differentiation. Presented at: EMBO course: Neural Stem Cells: From basic understanding to translational applications; June 2022; Kyllini, Greece
- > R. Soares, **I. F. Mota**, D. M. Lourenço, A. M. Sebastião, S. Xapelli, V. A. Morais, The relevance of Mitochondrial Dynamics in Neural Stem Cell Fate Presented at: EpiEpiNet 2nd Annual Meeting; January 2022; Virtual Meeting

Oral Presentations

- > Rita Soares, **Isa F. Mota**, et al., Characterizing the role of Mitochondrial Dynamics in postnatal Neural Stem Cell fate. Presented at: ISN-APSN Meeting; August 2022; Honolulu, USA
- > Rita Soares, **Isa F. Mota**, et al., The relevance of Mitochondrial Dynamics in Neural Stem Cell Fate Presented at: EpiEpiNet 2nd Annual Meeting; January 2022; Virtual Meeting

Awards & Scholarships

- > Travel Grant to attend EpiEpiNet Summer School in Lund, Sweden; 2022
- > Instituto de Medicina Molecular João Lobo Antunes (iMM) scholarship for iMM's Master's program (tuition fees covered); 2020-2022

Science Communication

08/2024	Speaker at "Neuroarte: Tintas e Tintos" workshop
01/2023	Speaker at 1 st Conferência de Professores CompreenderSAÚDE
11/2022	Speaker at Science Communication round table, at COLife Postdoc day 2022

Courses

- > EpiEpiNet Summer School: Optogenetics, Chemogenetics, CRISPR and epilepsy models; June 2022; Lund, Sweden
- > ESN YSSC Virtual Workshop "The First Publication"; May 2022

- > CONGENTO Course on Laboratory Animal Science (Function A) for mouse/rat and zebrafish; July 2021
- > FLxFlow Course: Principles and Applications of Flow Cytometry, May 2021
- > “Data Science: R Basics” by HarvardX; January 2020
- > “BrainX: Cellular Mechanisms of Brain Function” by EPFLx; September 2019

Association/Committee member

2022-Present	Member of “Fala-me Neuro” Science Communication Association
2021-2022	Member of Instituto de Medicina Molecular João Lobo Antunes (iMM) Master Student Committee
2019-2022	Member of “miniBIOQS – Associação Ciência para Todos” association

Teaching

2024	Physics and chemistry high school teacher, Escola Stuart Carvalhais, Portugal
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