

Curriculum Vitae

Isaura Martins, PhD

Católica Medical School - Center for Interdisciplinary Research in Health

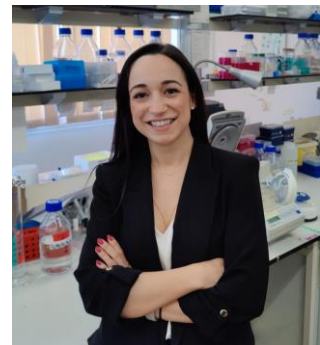
Phone: +351 915500052

Office: +351 218724310

Email: ismartins@ucp.pt

Date of birth: 16 of July 1987, Coimbra, Portugal

ORCID iD: 0000-0002-1329-7769



EDUCATION

- 2011 - 2015:** PhD (Neuroscience) ◉ University of Manchester, Manchester, UK
2008 - 2010: M.S. (Biochemistry) ◉ University of Coimbra, Coimbra, Portugal
2005 - 2009: B.S. (Biochemistry) ◉ University of Coimbra, Coimbra, Portugal

PROFESSIONAL EXPERIENCE

- 2024-present:** Principal Investigator Católica Medical School - Center for Interdisciplinary Research in Health
2024-present: Visiting Researcher GIMM, Lisbon, Portugal
2023- 2024: Postdoctoral Fellow ◉ iMM-JLA, Lisbon, Portugal
2017 - 2023: Postdoctoral FCT Fellow ◉ iMM-JLA, Lisbon, Portugal
2021: Science writing consultant ◉ Haymarket Media Inc, New York, USA
2015 - 2017: Postdoctoral Researcher ◉ iMM-JLA, Lisbon, Portugal
2011 - 2015: PhD FCT Fellow ◉ University of Manchester, Manchester, UK
2010 - 2011: Research Trainee ◉ CNC, Coimbra, Portugal

SCIENTIFIC AND PROFESSIONAL TRAINING

- 2020:** Trends in CNS Regenerative Medicine ◉ Minho University - ICVS, Braga, Portugal
2018: Spinal Cord Injury ◉ Neuroscience School of Advanced Studies, Venice, Italy
2017: Spinal Cord Injury Training Program ◉ Ohio State University, Columbus, Ohio, USA
2016: Staff Exchange under the Twining Program at Prof. Dr. Hellmut Augustin Lab ◉ German Cancer Research Center DKFZ, Heidelberg, Germany
2013: Research Trainee at Prof. David Allsop Lab ◉ University of Lancaster, Lancaster, UK

AWARDS/HONORS

- 2023:** SPBD Outstanding Developmental Biology Research Paper
2022: Lídia Silva Santos Postdoctoral Achievement Award 2022
2022: Best oral Communication Award – I International Meeting on the Brain Vasculature
2021: Pfizer Basic Research Award 2021
2020: Invited speaker International Online Spinal Cord Injury Research Seminars (i-OSCIRS)
2017: Craig H. Neilson Foundation Sponsorship to attend SCITP 2017 Ohio State University
2014: Travel Grant Guarantors of Brain
2013: Best Neuroscience oral presentation award University of Manchester
2013: Travel Grant Guarantors of Brain

INTELLECTUAL PROPERTY

- Provisional patent application PT 118583 (Pending).** “Treatment of Spinal Injury”. Inventors: **Martins, I.**, Saúde, L. And Neves-Silva, D. Applicants: iMM
- Patent PCT/EP2020/075769.** “Treatment of spinal cord injury”. Inventors: Paramos-de-Carvalho, D., **Martins, I.**, Jacinto, A. and Saúde, L. Applicants: iMM & UNL
- Patent PCT/IB2020/062306.** “Eletriptan Hydrobromide for treatment of spinal cord injury and improvement of locomotor function”. Inventors: Chapela, D., Côte-Real, S., Saúde, L., **Martins, I.**, Sousa, S. Applicants: TechnoPhage, SA & iMM

FUNDING as Principal Investigator

- 2024:** Wings for Life Research Grant
2023: Morton Cure Paralysis Fund Grant
2022: Exploratory Research Project FCT PeX 2022

PUBLICATIONS

Conference papers

1. **Martins, Isaura;** Knight, Elysse; Allan, Stuart; Lawrence, Catherine. "Effects of a high-fat diet on the cerebrovasculature and neuroinflammation in an experimental model of Alzheimer's disease". Paper presented in Alzheimer's Association International Conference, Vancouver, 2012. 10.1016/j.jalz.2012.05.1263
2. **Martins, Isaura;** Allan, Stuart; Lawrence, Catherine. "THE EFFECT OF RESVERATROL SUPPLEMENTATION ON THE EFFECTS OF A HIGH-FAT DIET IN A 3XTGAD FEMALE MOUSE MODEL OF ALZHEIMER'S DISEASE". Paper presented in Alzheimer's Association International Conference, Copenhagen, 2014. 10.1016/j.jalz.2014.05.648

Journal articles

1. **Martins I.****, Neves-Silva D.#, Ascensão-Ferreira M., Dias A.F., Ribeiro D., Isidro A.F., Quitéria R., Paramos-de-Carvalho D., Barbosa-Morais N.L. and Saúde L. (2023) Mouse spinal cord vascular transcriptome analysis identifies CD9 and MYLIP as injury-induced players. *Int. J. Mol. Sci.* 24, 7:6433. **DOI:** 10.3390/ijms24076433. (***corresponding author, #first co-author**) **IF:** 6.208.
2. Isidro A., Medeiros A.M., **Martins I.**, Neves-Silva D., Saúde L. and Mendes C. Using the MouseWalker to quantify locomotor dysfunction in a mouse model of spinal cord injury. (2023) *J. Vis. Exp.* 193, e65207. **DOI:**10.3791/65207. **IF:** 1.424.
3. Frederico B., **Martins I.**, Chapela D., Gasparrini F., Chakravarty P., Ackels T., Piot C., Almeida B., Carvalho J., Ciccarelli A., Peddie C.J., Rogers N., Briscoe J., Guillemot F., Schäfer A.T., Saúde L. and Reis e Sousa C. (2022) DNGR-1-tracing marks an ependymal cell subset with damage-responsive neural stem cell potential, *Dev. Cell* 57: 1957-1975.e9. **DOI:** 10.1016/j.devcel.2022.07.012 **IF:** 13.417.
4. Paramos-de-Carvalho D.*, **Martins I.***, Cristóvão A.M., Dias A.F., Neves-Silva D., Chapela D., Farinho A., Pereira T., Jacinto A. and Saúde L. (2021) Targeting senescent cells improves functional recovery after spinal cord injury. *Cell Reports* 36: 109334. **DOI:** 10.1016/j.celrep.2021.109334 (***shared first author**) **IF:** 9.423.
5. Paramos-de-Carvalho D.*, **Martins, I.*** Cristóvão A.M., Dias A.F., Neves-Silva D., Chapela D., Farinho A., Pereira T., Jacinto A. and Saúde L. (2020) "Depletion of senescent cells improves functional recovery after spinal cord injury". *bioRxiv*: <https://doi.org/10.1101/2020.10.28.358762>. (***shared first author**)
6. Chapela D., Sousa S*., **Martins I.***, Cristóvão A., Pinto P., Corte-Real S., Saúde L. (2019) A zebrafish drug screening platform boosts the discovery of novel therapeutics for spinal cord injury in mammals. *Sci Rep* 9(1):10475. **DOI:** 10.1038/s41598-019-47006-w (*** shared second author**) **IF:** 4.525.

7. **Martins I.**, Rivers-Autin J., Allan S., Lawrence C.B. (2017) Mitochondrial abnormalities and synaptic loss underlie memory deficits seen in mouse models of obesity and Alzheimer's disease. *Journal of Alzheimer's disease* 55(3):915-932. **DOI:** 10.3233/JAD-160640. **IF:** 3.731.
8. Knight E.M., **Martins I.V.A.**, Gümüşgöz S., Allan S., Lawrence C.B. (2014) High-fat diet-induced memory impairment in 3xTgAD mice is independent of changes in amyloid and tau pathology. *Neurobiology of Aging* 35(8):1821-32. **DOI:** 10.1016/j.neurobiolaging.2014.02.010. **IF:** 5.013.
9. Gomes S., **Martins I.**, Fonseca A. C., Oliveira C. R., Resende R., Pereira C. M. (2014) Protective effect of leptin and ghrelin against toxicity induced by amyloid- β oligomers in a hypothalamic cell line. *J Neuroendocrinology* 26 (3): 176-85. **IF:** 3.138.
10. **Martins I.**, Gomes S., Costa R. O., Otvos L., Oliveira C. R., Resende R., Pereira C. M. (2013) Leptin and ghrelin prevent hippocampal dysfunction induced by A β oligomers. *Neuroscience* 241 (0) 41-51. **IF:** 3.327.
11. Costa R. O., Ferreiro E., **Martins I.**, Santana I., Cardoso S. M., Oliveira C. R., Pereira C. F. (2012) Amyloid β -induced ER stress is enhanced under mitochondrial dysfunction conditions. *Neurobiology of Aging*. 33 (4):824.e5-824.e16. **IF:** 6.166.

SUPERVISION

2024 - 2025: Supervisor of Madalena Pires, Biomedical Research Master Student under the Thesis: Uncovering the role of MYLIP-expressing pericytes as new regulators of neuroinflammation and blood spinal cord barrier integrity after spinal cord injury.

2021 - 2023: Supervisor of Mariana Monteiro, Veterinary Medical Master Student under the Thesis: Histopathological and molecular characterization of the Liver after Spinal Cord Injury in the Mouse.

2020 - present: Co-supervisor of Ana Isidro, PhD Student (SFRH/BD/08168/2020), under the Thesis: The role of induced senescent cells in spinal cord neuroprotection and repair after an injury.

2020 - 2024: Co-supervisor of Dalila Silva, PhD Student (SFRH/BD/138636/2018), under the Thesis: The contribution of the perivascular and extracellular matrix components to the spinal cord regenerative outcome.

2020: Supervisor of the project "The role of periphery in spinal cord injury" for a Master Lecture Degree at Universidade do Algarve Departamento de Ciências Biomédicas e Medicina, Portugal

2018: Tutor for medical student under the SCORE Research Exchange - Intercâmbios em Investigação Científica, da IFMSA, Faculdade de Medicina de Lisboa and Samarskij gosudarstvennyj medicinskij universitet, Russia.

2013-2014: Supervisor of a Master Student at the University of Manchester, UK under the Thesis: Effect of High Fat Diet and Alzheimer's Disease on Peripheral Inflammation and Oxidative Stress: Potential of Resveratrol to Attenuate Peripheral Mechanisms and Cognition.

OTHER ACTIVITIES

2022: Invited Reviewer to Frontriers of Neuroscience Journal

2021: Science writing consultant ◦ Haymarket Media Inc, New York, USA

2018 - present: Journal scientific committee ◦ Journal de Investigação Médica (JIM)

2017: EMBO Leadership and Management Skills Workshop

2014: Volunteer at Central Manchester University Hospital, Manchester, United Kingdom

SCIENCE COMMUNICATION ACTIVITIES

2023 : Interviewed by Rádio em Movimento as a young female Neuroscientist in Portugal

2021 - 2022: Member of “Fala-me Neuro” with the support of Sociedade Portuguesa de Neurociências (SPN)

2021: Invited for “Dia do Cientista 2021” at Escola Nº1 Rio De Mouro, Sintra

2020: Invited speaker for "Dia do Cientista 2020" in Pavilhão do Conhecimento - Ciência Viva

2020: Part of the members of the virtual round table for "Noite dos Investigadores 2020" organized by Instituto de Medicina Molecular

2019: Part of the Science Club iMM to promote science and scientific activities in the Pediatric Unit at Hospital Santa Maria Lisboa

2017: Interviewed by Diário de Notícias about the role of women in Science (<https://www.dn.pt/sociedade/interior/ser-mulher-cientista-ou-chefe-cada-uma-e-como-e-5748450.html>)

2016 - 2017: Member of the Postdoctoral Association of Instituto de Medicina Molecular (iMM), organised several postdoctoral activities such as Postdoc Day at iMM, Postdoc Retreat and a Gender Balance in Science Debate to promote awareness of women in science with several important scientists worldwide such as the 2013 Laureate UNESCO-L’Oreal “For Women in Science” Reiko Kuroda and the EMBO Director Maria Leptin (<https://justnews.pt/noticias/instituto-de-medicina-molecular-acolhe-debate-sobre-a-igualdade-de-generos-na-ciencia#.XWUs5OhKg2w>)

2007-2009: Member (2007-2008) and Vice-President (2008-2009) of Biochemistry Students Association, Coimbra. Organisation of several events, such as: Portuguese Biochemistry Students Meeting; Commemoration of 30th anniversary of the Biochemistry course in Portugal; Biochemistry’s Department Open Day and Radical Weekend for Biochemistry students.