

# ROADMAP TO FOSTER RESEARCH, DEVELOPMENT AND INNOVATION AT ICVS

# ACTION PLAN (2023-2027)

Luísa Alexandra Meireles Pinto

Application for ICVS Director

January 2023

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# 1. SHORT CURRICULAR NOTE Academic-scientific career of Luísa Pinto

Luísa Pinto, PhD Ciência ID: 6718-2ED6-30B6 ORCID ID: 0000-0002-7724-0446 Research ID: A-7414-2010 Scopus Author ID: 22956209700 E-mail: luisapinto@med.uminho.pt

Luísa Pinto graduated in Biochemistry from the University of Coimbra and performed an internship during 1 year at the Karolinska Institute (Sweden) on therapeutic tools for She holds PhD Neurosciences Parkinson's Disease. а in by the Ludwig-Maximilians-Universität München (Germany). She is currently Assistant Researcher with tenure and team coordinator of the "Brain circuits and neuron-glia adaptations" thematic line at ICVS. She is also Invited Assistant Professor at the School of Medicine, University of Minho, since 2009, CEO of the start-up company "BNML-Behavioural & Molecular Lab", since 2012, and co-founder Member of the European College of NeuroPsychopharmacology (ECNP) Network on Resilience.

Luísa Pinto is currently supervising 6 PhD and 2 MSc students. Moreover, 1 Post-doc and 12 PhD and 16 MSc students already finished their degree under her supervision. With the goal of establishing a mechanistic link between brain neuro-glia plasticity and depression, research in her group led to i) demonstration that hippocampal cytogenesis is essential for the sustained remission from depression using animal models; ii) deeper understanding of processes implicated in the onset, treatment and recurrence of depression by characterizing the cellular signatures of antidepressants; iii) first proof that AP2y crucially modulates adult glutamatergic neurogenesis and cognition; iv) uncovering of a critical role of epigenetic mechanisms, namely via TET3, in brain plasticity and behavior.

Luísa Pinto has 3 patents, published 72 scientific publications, many in high-profile journals, such as *Neuron*, *Cell Stem Cell*, *Nature Neuroscience* (as 1<sup>st</sup> author) and *Molecular Psychiatry* (as senior author), with a total IF\_2021 of 546, and average IF\_2021=8 (accumulated IF - corrected for the author position: 355; 160 in the last three years; >2000 citations and h-index=29, ISI Web of Knowledge; January 2023).

Luísa Pinto has received several distinctions for her work, including the prestigious Doktorandenpreis des VdFF, 2009, in Germany, the 1<sup>st</sup> Prize of the ANJE Young Entrepreneur Award in 2013, and the Nature Research Award for Driving Global Impact (runner up, 2019). She was granted various highly competitive positions, including an FCT Investigator position in 2014, and a CEEC Assistant Researcher position in 2020 (8% approval rate). Recognition of her scientific expertise and leadership qualities is reflected in invitations to give oral communications (>30) and to serve as reviewer for the Postdoctoral IdEx Programme of Excellence, ANR, ERA-NET NEURON JTC2018-Mental Disorders, Research Foundation Flanders, Graduate Women in Science program, and FCT. She gained scientific management experience by coordinating FCT-funded projects, a Bial-funded project and various pharma-sponsored projects. She also served as Local Coordinator of the EU-funded Horizon2020 ITN-Network on Metabolic Dysfunctions associated with Pharmacological Treatment of Schizophrenia (total 3.750,899€; 2017-2021).

#### 2. MOTIVATION MANIFEST

Personal statement

In 2009, I integrated the ICVS, within the new School of Medicine (initially called School of Health Sciences), University of Minho (UMinho). Over these years, the ICVS has gained international and national recognition through the quality of its scientific production and advancements in biomedicine, both among peers and in society.

During these 14 years, I had the privilege and the opportunity to develop my academic/scientific career and to participate in ICVS growth and development. My intracurricular activities at ICVS have included key roles as: (i) Coordinator and regular lecturer of post-graduate courses; (ii) Coordinator of Bio-entrepreneurship (since 2017); (iii) Coordinator of advanced post-graduate courses (since 2022); (iv) Coordinator of the "Brain circuits and neuron-glia adaptations" research team (since 2022). I am also CEO of a start-up company located at the ICVS - "BNML – Behavioural & Molecular Lab", since 2012, whose experience has given me important management skills.

Scientific Research **was, is and will be** one of the main activities I dedicate myself to. Integrative approaches to understanding brain function have guided all my scientific activities, transcending the fields of genes, molecules, cellular mechanisms, and whole organism physiology and behavior. I started my research work at the Karolinska Institute, Sweden (2003-2004), where I did an internship on stem cells as a therapeutical tool for Parkinson Disease with Prof. Ernest Arenas and Dr. Gonçalo Castelo-Branco. I went then to the Helmholtz Zentrum München, Germany, to perform my PhD (2004-2008, under supervision of Dr. Magdalena Götz), during which my work represented a significant advancement in the understanding of neurogenic mechanisms in the brain. I moved then to ICVS as a Post-Doc fellow (2009-2013) and became Assistant Researcher in 2013. This career path allowed me to work in different teams with distinct expertises and backgrounds, different research institutes and countries. This diversity of scientific environments and cultures is an added value to understand the organization of science and research institutes.

Recently, I contributed to the successful ICVS application "Health from Portugal (HfPT)", yielding over 1 million euros from the Portuguese Government Recovery and Resilience Plan (RRP) together with 101 consortium partners. In representation of ICVS, I am coordinating work package 9 (C1.; PPS85 and PPS86 – Capacitation of clinical research centers) of this consortium to implement good laboratory practices (GLP) and an office to support grant applications at ICVS.

This 14-year journey gave me the confidence and motivation to take the helm of the ICVS, as it is now time for profound changes in the national and international research scenarios and, as a consequence, on the ICVS itself.

In the current application for the position of Director of ICVS, Paula Ludovico (Associate Professor with Habilitation) and Bruno Costa (Assistant Researcher with tenure) will join me as Vice-Directors of the ICVS. Paula and Bruno are two long-standing successful researchers at the ICVS that are recognized for their scientific value and knowledge of the dynamics of the ICVS (see biographic sketchers attached).

When I joined the ICVS, what most impressed me was the great environment in the laboratories and the feeling of being integrated in a research "family". The sharing of equipment, facilities, resources and specially knowledge among people was always present, and was a unique hallmark of the ICVS, highlighted by several other Research Institutes in Portugal and abroad. This was naturally translated into high motivation levels of researchers and supporting staff, clearly demonstrated by the outstanding achievements of several researchers throughout the years.

Unfortunately, the feeling today is that the ICVS has lost attraction and motivation of its people. The reasons for this are several and complex, and the proposed direction team will be committed to recover the motivation of people and the lively and stimulating environment at ICVS, where researchers feel fulfilled while working and sharing knowledge, making the Institute unique and attractive to its people, from young students to more experienced researchers. Other current challenges include restricted scientific career opportunities and funding issues, of limited and intermittent natures for the aspirations and true potential of the organization. We also aim to embark on an intensive and directed funding acquisition strategy to obtain higher levels of funding, as well as longer-term programs that allow the maintenance of high-tech equipment and other capabilities. I believe our experience, recognition and personal qualities have readied us to lead and successfully implement relevant changes at ICVS.

As a TEAM, together with all the ICVS community (students, researchers and staff), we will (re)project the present and the future of the ICVS through the implementation of the actions' plan herein proposed, focused on the following pillars: People-centered, Scientific excellence-driven, Funding and Long-term Sustainability, and Integrity, Ethics and Social Responsibility (as detailed below).

#### 3. LINES OF STRATEGIC DEVELOPMENT

Mission, Vision and Values

The ICVS Roadmap to Foster Research, Development and Innovation (2023-2027) will be implemented in alignment with the core mission of **Training**, and **generating Knowledge** and **Value** of the School of Medicine.

The ICVS is now a *central and aggregating partner* of the Health Cluster created by the School of Medicine and including the Clinical Academic Center – Braga, 2CA Braga, B.ACIS – Associação Ciência, Inovação e Saúde, and the Associação Centro de Medicina P5. Recently, the ICVS also integrated the CoLAB – 4LifeLab Collaborative Laboratory in Knowledge and Technology for Better Health.

The strategy for the ICVS development has also been centered in the establishment of a consortium with the research group 3B's - Biomaterials, Biodegradables and Biomimetics. The ICVS/3B's Associate Laboratory was created in 2011 as a result of the partnership established over the years between the ICVS and the 3B's. In 2021, the ICVS/3B's Associate Laboratory renovated its label for 10 more years.

The ICVS technological platform includes state-of-the-art scientific equipment for areas such as Cell and Tissue Culture, Electrophysiology, Biosafety Level 2 and 3, Molecular Biology, Imaging, Microscopy Imaging, Neuroanatomy/Neuroimaging, Histology, Biological Resources, Cytometry, Endoscopy, as well as a fully equipped Centre for Animal Experimentation, including areas for behavioral studies, experimental infections and surgical techniques. *The ICVS has created an environment where early-phase, clinical and applied research can thrive.* Furthermore, the ICVS research infrastructure facilitates the translation of discoveries into improved treatments and services for the benefit of patients.

The ICVS brings together more than 250 researchers with complementary backgrounds, academics and clinicians, to translate lab-based scientific breakthroughs into potential new treatments, diagnostics and medical technologies. This fruitful research ecosystem resulted in 2021 in more than 389 publications in international top-level scientific journals. Many of the ICVS researchers, including young scientists and MDs, have been honored with highly relevant awards for their scientific achievements.

During its existence, the ICVS has achieved important goals in all areas of activity. The ICVS started its activities by developing research on: (i) Microbiology and Infection, (ii) Neurosciences, and (iii) Surgical Sciences. Currently, the ICVS is organized in teams with thematic research instead of research domains and although the transition period has already passed, many of decisions taken are still to be implemented.

Our Mission, Vision and Values are strategic for the implementation of the actions' plan herein presented and focused in the pillars: People-centered, Scientific excellence-driven, Funding and Long-term Sustainability, and Integrity, Ethics and Social Responsibility.

#### **Our Mission, Vision, and Values**

#### Our mission

To advance knowledge and healthcare by promoting scientific excellence in biomedical and translational research, and educating next-generation researchers in science, technology, and innovation.

#### Our vision

Our vision is to be, by the end of 2027, consolidated as <u>the central player</u> in biomedical and translational research within the Minho *Health Cluster* and a leading Institute for biomedical research at the National and International arenas.

#### Our values and goals

#### People-Centered

- To attract/retain talent, strongly investing in people's motivation and providing a lively, stimulating, and inclusive working environment.
- To promote a culture of openness by regular meetings with the ICVS community, working actively to identify priorities and to achieve common goals.
- To support academic success, personal growth, and well-being of all the ICVS members (scientists, supporting staff, and students).
- To promote equity and equal opportunities, embracing, respecting, and valuing the diversity, experiences, and unique ideas of ICVS members.
- To guide and nurture young researchers in training.
- To support opportunities for personal and career development.
- To attract talents as "Visiting Scientist" for short period visits at the ICVS, by taking advantage of scientific mobility programs.
- To offer a model of "transformational leadership", investing in the success of each single ICVS member.

Scientific Excellence-Driven

- To achieve excellence in biomedical sciences within all aspects of healthcare and to provide the highest standards of service to society.
- To gather and retain critical mass, reinvigorating and enriching the scientific environment.
- To optimize ICVS human resources according to people' skills and aspirations, committed to the highest job performance and service standards.

- To promote the creation of specialized/certificated services to society regarding opportunities that increased exponentially in recent years (e.g., molecular diagnostics).
- To actively promote the acquisition of state-of-the-art scientific equipment.
- To consolidate the participation of the ICVS in the National Roadmap of Research Infrastructures, including the MinhoMedBiobank.
- To promote ICVS participation in the new national research center to be created (Centro de Investigação com recurso a modelos alternativos aos animais utilizados para fins científicos – Lei do Orçamento 2022, artº 265).
- To foster strategic collaborations with worldwide top research institutions and stakeholders.
- To create the best scientific environment for a leading position within the Minho Health Cluster setting.
- To promote an environment that fosters interactions with the Minho Health Cluster partners and hospitals, industry and academia, and to favor entrepreneurship and knowledge/technology translation for the benefit of the society.

Funding and Long-term Sustainability

- To create an office dedicated to identifying relevant grant applications and expert project writing with a full-time Science Manager.
- To explore problem-solving creative approaches with the School of Medicine and the UMinho, to increase the Institute' sustainability and independence/autonomy, and to minimize the problems and time-consuming procedures with several processes.
- To continue the ICVS policy of sharing equipment, core facilities, and global infrastructures.
- To embrace new and creative strategies for funding and sustainability by reinforcing and diversifying the ICVS funding resources, spanning not only conventional but also non-conventional international (e.g., collaborative Open Innovation programs with industry, Scientific divulgation calls) and national (e.g., CCDR-N) funding schemes.
- To consolidate and find new tools to attract and keep talents, applying to external (e.g., ERA Chair, Synergy Grants, CCDRN, Sponsorship) and ICVS/EM funds.
- To open discussion on the ICVS model that better supports research activities.

Integrity, Ethics, and Social Responsibility

- To foster the ICVS communication, outreach, and dissemination programs, by stimulating applications to new and specific funding opportunities.
- To implement conditions for protecting and storing raw data according to the RGPD and current FCT rules.
- To conduct ethical, responsible, and meaningful research.
- To achieve the highest standards of professional integrity, ethical behavior, and social responsibility, displaying empathy, care, and respect towards the human person and animal welfare, for the progress and appreciation of knowledge, scientific integrity, quality, originality, and freedom of research.
- To be committed to a research practice subordinated to universal ethical values and principles and those that derive from the commitment to the construction of science

as a "collective heritage" (European Code of Conduct for Research Integrity and Code of Ethical Conduct of UMinho).

- To promote continuous training and monitoring of research integrity and bioethics.
- To nurture a flexible and progressive environment that fosters gender equality and inclusion.
- To act and promote transparency, integrity, and responsibility in the ICVS governance.

6<sup>th</sup> January 2023

Luísa Alexandra Meireles Pinto

#### 4. ANNEXES

Biographic sketches of Paula Ludovico and Bruno Costa (Proposed Vice-Directors)

**Paula Ludovico** graduated in Biology, University of Porto (1994), and has a Master of Science in Molecular Genetics at the University of Minho (1999). In 2002, she concluded her PhD in Biological Sciences at the University of Minho. In 2002 she joined the Health Sciences School of the University of Minho as an Assistant Professor. Since 2011, she is an Associate Professor, with Habilitation (2016) at the School of Medicine\*, Principal Investigator at the Life and Health Sciences Research Institute (ICVS), School of Medicine, and of the ICVS/3B's Associate Laboratory, University of Minho. She was a Visiting Scientist (2001) at the Department of Biological Sciences, Columbia University, New York, USA, at the Department of Neurology, Miami University, Florida, USA, and at the *Institut de Biochimie et Génétique Cellulaires / Centre National de la Recherche Scientifique*, Bordeaux, France. In 2013, she was a Visiting Professor at the Faculty of Sciences, Department of Biology at KU Leuven, Belgium. She was the Pro-director of ICVS (2019-2022), a member of the Direction board of ICVS (2014-2022), and a member of the Scientific Council of ICVS since 2003.

Paula Ludovico pioneered the study of regulated cell death in fungi and has been using yeast as an eukaryotic model system to address important scientific questions in cellular and molecular biology. Particularly, she has been exploiting the yeast chronological aging model to investigate the proteostasis control during cellular aging. More recently, she has been studying another age-related disease, the acute myeloid leukemia (AML), in the scope of several projects on diagnosis, pathogenesis (particularly on the role of autophagy and UPS), treatment and monitoring of AML. Her track record is currently mirrored by more than 90 publications in international journals (accumulated IF - corrected for the author position: 275.088; >6800 citations and h-index=30, ISI Web of Knowledge; January 2023) and 5 international book chapters. Her research has been supported by funding agencies (e.g., FCT) and by contracts with the industry (e.g., Amicus therapeutics and Novartis). She serves as an editorial board member for the journals Cancers and Microbial Cell, and she has been an ad-hoc reviewer for more than 70 journals (e.g. Aging Cell, Cell Death and Differentiation, Autophagy and PNAS) and several funding agencies, including the AIAS-COFUND II fellowships 2020, French National Cancer, Biotechnology and Biological Sciences Research Council (UK), National Science Foundation, CAREER Proposals (USA), Research Project Proposal, Research Foundation - Flanders (Belgium) and FCT (as a member and cocoordinator of the panel Biochemistry and Experimental Biology). Thanks to her contributions to the field, she has received over 50 invitations as an invited speaker and chair at established international meetings.

\*Formerly School of Health Sciences until December 2016

**Bruno Costa** is an Assistant Researcher with tenure at the School of Medicine, University of Minho (Portugal), working at the Life and Health Sciences Research Institute (ICVS). He graduated in Applied Biology in 2003, and joined the ICVS in 2004 to start his PhD in Health Sciences, concluded in December 2008. He is mainly interested in the study of molecular (genetic and epigenetic) and cellular hallmarks of human brain tumors, and how these can be translated into therapeutic and prognostic values, contributing to a precision medicine approach in brain cancer care. During his scientific career, he also worked in other research institutes in Portugal (University of Porto), in the Netherlands (Leiden University Medical Centre), and in the USA (University of California, San Francisco). He was granted various highly competitive positions, including an FCT Investigator position in 2013, and a CEEC Assistant Researcher position in 2019 (8% approval rate), and successfully secured funding from multiple agencies [510.000€ as Principal Investigator (PI), 245.000€ as co-PI (110.000€ allocated to him at ICVS), 190.000€ as a team member of institutional projects, and 492.500€ as FCT salary grants].

Bruno Costa has accumulated 23 honors/prizes, including prestigious recognitions from the Calouste Gulbenkian Foundation, the Luso-American Development Foundation, and the Portuguese League Against Cancer. He was an invited speaker in 26 communications, including 8 plenary talks, and a guest editor for 4 international scientific journals. His work as project leader was awarded with 11 best poster/oral communication prizes in scientific meetings. He has been an invited scientific evaluator for 8 international funding agencies [ERA-NET" (European Commission), "World Cancer Research", "INSERM" (France), "Fondation contre le Cancer" (Belgium), "The Cancer Society of New Zealand", "The Swiss Cancer League", "National Science Center Poland", and FCT (Portugal)], and a recurring referee for >35 ISI-indexed international journals.

Bruno Costa successfully supervised 7 PhD, 8 MSc, and 6 Medical (final-year project) students who already concluded their thesis, and is currently the supervisor of 3 PhD, 1 MSc, and 1 MD students. He was an invited jury in 16 MSc and 8 PhD defenses, and has been a main organizer and lecturer of annual editions of 6 Post-Graduation courses, and 1 international EMBO workshop. He published 63 papers (ISI h-index=22; average IF\_2021=7.6), many in highly-prestigious journals (e.g. "Cancer Cell", "Cell Reports", "Neuro-Oncology", "Cancer Research", "Clinical Cancer Research" and "Theranostics"), accumulating >1500 citations, and has 1 international patent on a biomarker for glioblastoma. Presently, he is a Board Member of the Portuguese Association for Cancer Research (ASPIC), and a National Delegate MC Member of a European COST Action.

# **Curriculum Vitae**

Luísa Alexandra Meireles Pinto

Braga, January 2023

Pinto, Luísa A.M.

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#### 1. SUMMARY OF PERFORMANCE INDICATORS

The following summary table provides an overview of my CV related with the specific performance indicators to the application for Director of the ICVS, as approved in the Scientific Council of the School of Medicine in 19<sup>th</sup> of December of 2022.

CRITERION	MINIMUM	ACCOMPLISHED
<b>1. Pedagogical competence and d</b>	issertation guidance	
a.i. <u>Postgraduate training</u> :	6 PhD students, 3 of which	12 PhD students successfully
Supervision	successfully completed	completed (6 supervisions and 6
		co-supervisions) and 6 PhD
		students with thesis in progress (3
		supervisions and 3 co-
		supervisions)
a.ii. <u>Postgraduate training</u> :	6	14 postgraduate courses, 1
Organization of postgraduate		workshop and 2 Congresses.
courses/activities		
2. Scientific Merit		
a. <u>Scientific/technological</u>	$\geq$ 150 and $\geq$ 30 in the last 3 years	355 in total and 160 in the last 3
productivity: Impact factor - Sum		years
of the number of publications		
corrected by impact factor and		
authorship position		
or		
a. <u>Scientific/technological</u>	10 in Q1 journals with at least 5 as	23 in Q1, with 12 as last author in
productivity: Quartiles	first or last author in the last 3	the last 3 years
	years	
3. N° of citations (ISI Web of	≥1000	2353
Knowledge)		
4. H-index (ISI Web of	≥20	29
Knowledge)		
5. Competitive cumulative funding in the last 5 years through:		
Scientific-technological projects	>200.000€	1.497.051,69€

#### Pinto, Luísa A.M.

#### 2. PERSONAL INFORMATION

Family name, First name:	Pinto, Luísa
Researcher unique identifier(s)	ORCID: orcid.org/0000-0002-7724-0446;
	ScopusID: 22956209700
	Web of Science ResearcherID: <u>A-7414-2010</u>
	Ciência ID: <u>6718-2ED6-30B6</u>
Date of birth:	10 <sup>th</sup> of March, 1981
Nationality:	Portuguese
E-mail:	luisapinto@med.uminho.pt
Phone number:	00351 966778306



#### 3. SYNOPSIS OF THE SCIENTIFIC AND CURRICULAR PATH

I started my research work at the Karolinska Institute (2003-2004), where I did an internship on the subject of stem cells as a therapeutical tool for Parkinson Disease with Prof. Ernest Arenas and Dr. Gonçalo Castelo-Branco, experts in stem cells and regenerative therapies. I went then to the Helmholtz Zentrum München, Germany, to do my PhD in Neurosciences. During my PhD studies (2004-2008, under supervision of Dr. Magdalena Götz), I provided the first lineage and transcriptomic profile of functionally distinct radial glia-like stem cells in the developing cortex (MCN, 2008; Prog. Neurobiol., 2007) that lead to the discovery of novel genes shown later to be important for proper brain function (Nat. Neurosci., 2009; Cell, 2013). My contribution, the discovery of AP2 $\gamma$ , a novel transcription factor essential for glutamatergic neurogenesis and visual acuity (Nat. Neurosci., 2009), represented a significant advance in the understanding of neurogenic mechanisms in the brain and was recognized by the prize "Doktorandenpreis des VdFF 2009".

One aspect missing from the integrative approach I used in my PhD work was to study the impact of these novel molecules and mechanisms regulating neurogenesis to brain function and behavior in health and disease. As such, I started working as a Postdoc (2009-2013) at Nuno Sousa's lab at the University of Minho (Life and Health Sciences Research Institute -ICVS), focusing on the modulation of adult hippocampal neurogenesis in the context of depression. During this period, I delivered the **first demonstration of the essentiality of hippocampal cytogenesis for sustained remission from depression** (Transl. Psychiatry, 2013; Mol. Psychiatry, 2013), and **developed novel cellular and behavioral methods** (PlosOne, 2012; Front. Behav. Neurosci., 2014); the latter resulted in the **patent PT105555**. This study has changed the field in the sense that adult neurogenesis but also astrogliogenesis started to be recognized as crucial mechanisms in depression's pathophysiology (commented by the Editor Joel Yager in <u>NEJM</u>, 2013).

This study spurred me to start my own research team at ICVS with a FCT (Portuguese National Science Agency) Investigator position (Starting Level; 16% approval rate; 2015-2020) with a new research program, aiming at investigating the **brain's molecular and neuro- and glio-plasticity mechanisms underlying the different behavioral modalities affected by depression**. Research of my team led to: i) deeper understanding of **brain neuro-glia plasticity processes implicated in the onset, treatment and recurrence of depression** by characterizing the cellular and molecular signatures of antidepressants (<u>Neuropshychopharmacology, 2015;</u> Transl. Psychiatry, 2017; Brain Struct. Funct., 2018; Front. Cell. Neurosci., 2018; Front. Behav. Neurosci., 2020; Neuroscience, 2021; Glia, 2021; Neuroscience & Biobehavioral Reviews, 2021; Mol. Psychiatry, 2021; Cell Proliferation, 2022; Cells, 2022); ii) first proof that **AP2y crucially modulates adult glutamatergic neurogenesis and cognition, as well as anxious-like behavior and memory** in juvenile mice (<u>Mol. Psychiatry, 2017; J Exp Neurosci., 2018; eLife, 2021</u>) iii) advance in the understanding of the **function of epigenetic DNA modifications in brain neuronal plasticity and behavior** (<u>Neuroscience & Biobehavioral Reviews, 2019; Cell. Mol. Life Sci., 2020; Mol. Psychiatry, 2021; Mol. Neurobiology, 2022</u>). As a result of

my work on astrogliogenesis function in health and depression, I was recently awarded with a runner up <u>Nature</u> <u>Research Award for Driving Global Impact: 2019 Brain Sciences</u>, USA and with the FCT CEECI position (8% approval rate) in 2020, to fund my salary for 6 years. More recently (November, 2021), I was awarded with a tenure position as Assistant Researcher at the University of Minho, Braga, Portugal. Currently (since January 2022), I'm also team coordinator of the "Brain circuits and neuron-glia adaptations" thematic line at ICVS.

As reflected above, the findings of my team have opened new perspectives regarding the role of specific subpopulations of newborn neurons and glia in the regulation of hippocampal plasticity and their relevance to neuropsychiatric disorders. Over the past years, I have been invited to participate in several symposia and delivered over 30 invited talks, with the goal of pushing for new perspectives, neuroglioplasticity mechanisms and approaches in the field of neurosciences and neuropsychiatry. I'm frequently invited to serve as reviewer for the Postdoctoral IdEx Programme of Excellence, French National Research Agency (2015-2017), ERA-NET NEURON JTC2018-Mental Disorders, Research Foundation Flanders (2018; 2021-2023); Graduate Women in Science program (2019, 2021); National Science Centre Poland (2022) and FCT (2020-2023). I also serve as Associate Editor for the journals Cells, Frontiers in Neuroscience, Frontiers in Neurology and Frontiers in Psychiatry. My intra-curricular activities at ICVS include service as i) Coordinator and regular lecturer of advanced post-graduate courses; ii) Coordinator of Bio-entreneurship (since 2017); iii) Invited Assistant Professor at UMinho School of Medicine (since 2009). I gained scientific management experience by coordinating FCT-funded projects ( $50.000 \in +268.113 \in$  for salary in 2015-2020; 335.811€ for salary in 2021-2027; 249.392,10€ for a research project in 2023-2025), a Bial-funded project (48.000€; 2015-2020); a Mantero Belard Prize for Neurodegenerative Diseases from Santa Casa da Misericórdia de Lisboa (SCML) (Co-PI of 200.000€; 2020-2023). and managing various pharma-sponsored projects (total 300.000€). I also served as Local Coordinator of the EU-funded Horizon2020 ITN-Network on Metabolic Dysfunctions associated with Pharmacological Treatment of Schizophrenia (total 3.750,899€; management as PI of 238.356€ in 2017-2021). Lastly, I gained unique experience as Co-founder and CEO of a spin-off company (Bn'ML) since 2012, for which I shared the TecMinho Young Enterpreneurs Prize and the ANJE Young Entrepreneur Award.

#### 4. ABSOLUTE WORTH/ BIBLIOMETRIC INDICATORS

- Total accumulated impact factor: **480**
- Sum of the number of publications, corrected for the publication impact factor and the corresponding position of authorship: **355**
- Number of peer-reviewed articles: 72
- Number of Citations: 2492 (Scopus); 2353 (Web of Science)
- h índex: 28 (Scopus); 29 (Web of Science)
- Completed supervisions: 1 Post-doc, 12 PhD and 16 MSc students
- Current supervisions: 6 PhD (3 supervisions and 3 co-supervisions) and 2 MSc students

#### 5. EDUCATION

# 2008 PhD in Natural Sciences

Faculty of Biology, Ludwig-Maximilians University of Munich, Munich, Germany Thesis: "Molecular mechanisms regulating neurogenesis in the developing mouse cerebral cortex." PhD Supervisor: Prof. Dr. Magdalena Götz

#### 2004 Graduation (BSc) in Biochemistry

Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal

#### 6. CURRENT POSITIONS

2021-	Assistant Investigator with tenure
	Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal
2009-	Invited Assistant Professor (dedication of 30%)
	School of Medicine, University of Minho, Braga, Portugal
2012-	CEO of the spin-off company BNML – Behavioral & Molecular Lab LDA
	Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal

#### 7. PREVIOUS POSITIONS

2021	Assistant Investigator (FCT Scientific Employment Position 2020)
	Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal
2020-2021	Doctoral Researcher to perform activities of I&D, advanced training and specialized
	services in the field of Health Sciences
	B'acis – Associação Ciência, Inovação e Saúde
	School of Medicine, University of Minho, Braga, Portugal
2015-2020	Assistant Investigator (FCT Starting Position)
	Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho,
	Braga, Portugal
2013-2015	Invited Assistant Investigator
	Programa Operacional Regional do Norte (ON.2)/QREN
	Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal
2009-2013	Post-Doctoral fellow, Prof. Dr. Nuno Sousa laboratory
	Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal
2005-2008	PhD student, Prof. Dr. Magdalena Götz laboratory
	Stem Cell Research Institute, Helmholtz Zentrum München, Munich, Germany
2003-2004	Internship in Neurobiology, Dr. Ernest Arenas
	Department of Medical Biochemistry & Biophysics, Karolinska Institute, Stockholm,
	Sweden

# 8. SCIENTIFIC PERFORMANCE

## 8.1 SCIENTIFIC OR TECHNOLOGICAL PRODUCTION

#### 8.1.1 PEER-REVIEWED PUBLICATIONS

My research output includes <u>72 published peer-reviewed articles</u> (81% of the articles in Q1 journals) in highprofile journals such as *Neuron, Cell Stem Cell, Nature Neuroscience* (as 1st author) and *Molecular Psychiatry* (as senior author), **1 Book Chapter**, **1 Edited Book**. My <u>sum of the number of publications</u>, corrected for the publication impact factor and the corresponding position of authorship, <u>is 355</u> (cumulative IF=480; cumulative IF\_2021=546; average impact factor=7.1; average IF\_2021=8). My work has <u>2353 citations (Web of Science)</u>, with a <u>*h*-index of 29 (Web of Science)</u>.

# Authors contributed equally to the work NA: not attributed WOS: Web of Science

<sup>\*</sup> Last author

#### Peer-reviewed articles (orcid.org/0000-0002-7724-0446).

- Vaz, A., Ribeiro, I., Pinto, L.\* (2022). Frontiers in Neurogenesis. <u>Cells</u> 11(22), 3567. (*IF=7.666; citations according to WOS=0*)
- Marote, A., Santos, D., Mendes-Pinheiro, B., Serre-Miranda, C., Anjo, S.I., Vieira, J., Ferreira-Antunes, F., Correia, J.S., Borges-Pereira, C., Pinho, A.G., Campos, J., Manadas, B., Teixeira, M.R., Correia-Neves, M., Pinto, L., Costa, P.M., Roybon, L., Salgado, A.J.\* (2022). Cellular Aging Secretes: a Comparison of Bone-Marrow-Derived and Induced Mesenchymal Stem Cells and Their Secretome Over Long-Term Culture. <u>Stem Cell Rev Rep.</u> Sep 24. doi: 10.1007/s12015-022-10453-6. (*IF=6.692; citations according to WOS=0*)
- Antunes, C., Da Silva, J.D., Guerra-Gomes, S., Alves, N.D., Loureiro-Campos, E., Pinto, L.\* and Marques, J.\* (2022). Tet3 deletion in adult brain neurons of female mice results in anxiety-like behavior and cognitive impairments. <u>Mol. Neurobiol.</u> 59:4892–4901. (*IF=5.682;* <u>citations according to WOS=0</u>)
- Gaspar, R., Soares-Cunha, C., Domingues, A.V., Coimbra, B., Baptista, F.I., Pinto, L., Ambrósio, A.F., Rodrigues, A.J., Gomes, C.A. (2022). The duration of stress determines sex specificities in the vulnerability to depression and in the morphologic remodeling of neurons and microglia. <u>Front. Behav. Neurosci</u>, 16:834821. (<u>IF=3.617; citations according to WOS=2</u>)
- Soares-Cunha, C., Correia, R., Domingues, A.V., Coimbra, B., Vasconcelos, N.AP., Pinto, L., Sousa, N., Rodrigues, A.J.\* (2022). Distinct role of nucleus accumbens D2-MSN projections to ventral pallidum in different phases of motivated behavior. <u>Cell Reports.</u> Feb 15;38(7):110380. (*IF=9.995; citations according to WOS=2*)
- Machado-Santos, A.R., Loureiro-Campos, E., Patrício, P., Araújo, B., Alves, N.D., Mateus-Pinheiro, A., Correia, J.S., Morais, M., Bessa, J.M., Sousa, N., Rodrigues, A.J., Oliveira, J.F.\* and Pinto. L\* (2022). Beyond New Neurons in the Adult Hippocampus: Imipramine Acts as a Pro-Astrogliogenic Factor and Rescues Cognitive Impairments Induced by Stress Exposure. <u>Cells</u>, 11, 390. (*IF=7.666; citations according to WOS=3*)
- Lima, S., Sousa, N., Patrício, P.\* and Pinto, L.\* (2022). The underestimated sex: a review on female animal models of depression. <u>Neuroscience & Biobehavioral Reviews</u>, 133; 104498. (*IF=9.052; citations according to WOS=0*)
- Manchia, M., Gathier, A., Eser. H.Y, Schmidt, M.V., de Quervain, D., van Amelsvoort, T., Bisson, J.I., Cryan, J.F., Howes, O.D., Pinto, L., van der Wee, N., Domschke, K., Branchi, I., Vinkers, C.H.\* (2022). The impact of the prolonged COVID-19 pandemic on stress resilience and mental health: a critical review across waves. <u>European Neuropsychopharmacology</u>, 55:22-83. (*IF=5.415; citations according to WOS=44*)
- 9. Silveira-Rosa, T., Mateus-Pinheiro, A., Correia, J.S., Silva, J.M., Martins-Macedo, J., Araújo, B., Machado-Santos, A.R., Alves, N.D., Silva, M., Loureiro-Campos, E., Sotiropoulos, I., Bessa, J.M., Rodrigues, A.J., Sousa, N., Patrício, P.\* and Pinto, L.\* (2022). Suppression of adult cytogenesis in the rat brain leads to sex-differentiated disruption of the HPA axis activity. Cell Proliferation, Feb;55(2):e13165. (*IF=8.755; citations according to WOS=2*)
- Assunção Silva, R.C., Pinto. L. and Salgado, A.J.\* (2022). Cell Transplantation and Secretome based Approaches in Spinal Cord Injury Regenerative Medicine: From Basic Studies in Animal Models to Clinical Application. <u>Medicinal Research Reviews,</u> 42(2):850-896. (<u>IF=12.388; citations according to WOS=3</u>)
- Loureiro-Campos, E., Mateus-Pinheiro, A., Patrício, P., Soares-Cunha, C., Silva. J., Sardinha, V.M., Mendes-Pinheiro, B., Silveira-Rosa, T., Domingues, A.V., Rodrigues, A.J., Oliveira, J.F., Sousa, N., Alves, N.D.\* and Pinto, L.\* (2021). Constitutive AP2gamma deficiency reduces postnatal hippocampal neurogenesis, inducing anxious-like phenotype and memory impairments in juvenile mice that either persist or emerge during adulthood. <u>eLife</u>, 10:e70685.

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- Patrício, Р., Mateus-Pinheiro, Machado-Santos, A.R., Alves, N.D., A., Correia, J.S., Morais, М., Bessa, J.M., Rodrigues, A.J., Sousa, and N. Pinto, L.\* (2021). Cell Cycle Regulation of Hippocampal Progenitor Cells in Experimental Models of Depression and after Treatment with Fluoxetine. Int. J. Mol. Sci. Oct 30;22(21):11798. (IF=6.208; citations according to WOS=4)
- Mendes-Pinheiro, B., Soares-Cunha, C., Marote, A., Loureiro-Campos, E., Campos, J., Barata-Antunes, S., Monteiro-Fernandes, D., Santos, D., Duarte-Silva, S., Pinto. L. and Salgado, A.J.\* (2021). Unilateral Intrastriatal 6-Hydroxydopamine Lesion in Mice: A Closer Look into Non-Motor Phenotype and Glial Response. <u>Int. J. Mol. Sci.</u>, 22, 11530. https://doi.org/10.3390/ijms222111530. (*IF=6.208; citations according to WOS=7*)
- Mateus-Pinheiro, A., Patrício, P., Alves, N.D., Martins-Macedo, J., Caetano, I., Silveira-Rosa, T., Araújo, B., Mateus-Pinheiro, M., Silva-Correia, J., Sardinha, V.M., Loureiro-Campos, E., Rodrigues, A.J., Oliveira, J.F., Bessa, J.M., Sousa, N., Pinto, L.\* (2021). Hippocampal cytogenesis abrogation impairs inter-regional communication between the hippocampus and prefrontal cortex and promotes the time-dependent manifestation of emotional and cognitive deficits. <u>Molecular Psychiatry</u>, Dec 26(12): 7154–66. (*IF=13.437; citations according to WOS=5*)
- Martins-Macedo, J., Salgado, A.J., Gomes, E.D.\*, Pinto, L.\* (2021). Adult Brain Cytogenesis in the Context of Mood Disorders: from Neurogenesis to the Emergent Role of Gliogenesis.
   <u>Neuroscience & Biobehavioral Reviews</u>, Dec;131:411-428. (*IF=9.052; citations according to WOS=0*)
- Loureiro-Campos, E., Pinto, L., Falcão, A.M.\* (2021). CSF circulation regulates depression: do not disturb the flow! <u>Molecular Psychiatry</u>, Dec;26(12):7072-7073. (*IF=13.437; citations* <u>according to WOS=0</u>)
- Coimbra, B., Domingues, A.V., Soares-Cunha, C., Correia, R., Pinto, L., Sousa. N., Rodrigues, A.J.\* (2021). Laterodorsal tegmentum-Ventral Tegmental Area projections encode positive reinforcement signals. Journal of Neuroscience Research. 99(11):3084-3100. (*IF=4.433; citations according to WOS=1*)
- Marques, F.<sup>#</sup>, Pinto, L.<sup>#</sup>, Azevedo, M.M, Sampaio-Marques, B., Areias, A.C., Salgueira, A., Costa, M.J., Rodrigues, F., Ludovico L.\* (2021). Innovative, integrative and interactive inclass activity on metabolic regulation: Evaluating educational impacts. <u>Biochemistry and</u> Molecular Biology Education. 49(6):870-881.. (*IF*=1.369; citations according to WOS=0)
- Dioli, C., Patrício, P., Pinto, L.G., Marie, C., Morais, M., Vyas, S., Bessa, J.M., Pinto, L., Sotiropoulos, I.\* (2021). Adult neurogenic process in the subventricular zone-olfactory bulb system is regulated by Tau protein under prolonged stress. <u>Cell Proliferation</u>. Jul;54(7):e13027. (*IF=8.755; citations according to WOS=4*)
- 20. Gaspar, R., Soares-Cunha, C., Domingues, A.V., Coimbra, B., Baptista, F.I., Pinto, L., Ambrósio, A.F., Rodrigues, A.J., Gomes, C.A.\* (2021). Resilience to stress and sex-specific remodeling of microglia and neuronal morphology in a rat model of anxiety and anhedonia. <u>Neurobiology of Stress.</u> May, 14, 100302. (*IF=7.142; citations according to WOS=10*)
- Machado-Santos, A. R.#, Alves, N.D.#, Araújo, B., Correia, J.S., Patrício, P., Mateus-Pinheiro, A., Loureiro-Campos, E., Bessa, J.M., Sousa, N., Pinto, L.\* (2021). Astrocytic plasticity at the dorsal dentate gyrus on an animal model of recurrent depression. <u>Neuroscience</u>. Feb 1;454:94-104. (*IF=3.708; citations according to WOS=11*)
- Martins-Macedo, J., Lepore, A.C, Domingues, H.S., Salgado, A.J., Gomes, E.D., Pinto, L.\* (2021) Glial restricted precursor cells in central nervous system disorders: Current applications and future perspectives. Glia. 69(3), pp. 513–531. (*IF=8.073; citations according to WOS=8*)
- Antunes C., MSc, Da Silva J.D., Guerra-Gomes S., Alves N.D., Ferreira F., Loureiro-Campos
   E., Branco M.R., Sousa N., Reik W., Pinto L.\* and Joana Marques J.\* (2021). Tet3 ablation

	in adult brain neurons increases anxiety-like behavior and regulates cognitive function in mice.
	Molecular Psychiatry, May;26(5):1445-1457. (IF=13.437; citations according to WOS=20)
24.	Guerra-Gomes, S., Cunha-Garcia, D., Nascimento, D., Duarte-Silva, S., Loureiro-Campos, E.,
	Sardinha, V.M., Viana, J.F., Sousa, N., Maciel, P., Pinto, L. and Oliveira, J.F. (2021). IP3R2
	null mice display a normal acquisition of somatic and neurological development milestones.
	European Journal of Neuroscience, 54(5), pp. 5673–5686. (IF=3.698; citations according
	<u>to WOS=8</u> )
25.	Patrício, P., Mateus-Pinheiro, A., Alves, N.D., Morais, M., Rodrigues, A.J., Bessa, J.M., Sousa,
	N., Pinto, L.* (2020) miR-409 and miR-411 Modulation in the Adult Brain of a Rat Model of
	Depression and After Fluoxetine Treatment. Front. Behav. Neurosci. 14:136. IF=3.588;
	citations according to WOS=6)
26.	Vinkers, C.H., van Amelsvoort T., Bisson J.I., Branchi I., Cryan J.F., Domschke K., Manchia
	M., Pinto L., de Quervain D., Schmidt M.V., van der Wee N. (2020). Stress resilience during
	the coronavirus pandemic. Eur Neuropsychopharmacol. Jun;35:12-16. (IF=4.6; citations
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27.	Santiago M., Antunes C., Guedes M., Iacovino M., Kyba M., Reik W., Sousa N., Pinto L.,
	Branco M.R., Marques C.J.* (2020). Tet3 regulates cellular identity and DNA methylation in
	neural progenitor cells. Cell. Mol. Life Sci. 77(14), 2871-2883. (IF=9.261; citations
	according to WOS=16)
28.	Antunes, C., Sousa N., Pinto L.*# and Marques J.*# (2019). TET enzymes in neurophysiology
	and brain function. Neuroscience & Biobehavioral Reviews. Jul 102:337-344. (IF=8.329;
	citations according to WOS=20)
29.	Dioli, C., Patrício, P., Sousa, N., Kokras, N., Dalla, C., Guerreiro, S., Santos-Silva, M.A.,
	Rego, A.C., Pinto, L., Ferreiro, E., Sotiropoulos, I.* (2019). Chronic stress triggers divergent
	dendritic alterations in immature neurons of the adult hippocampus, depending on their
	ultimate terminal fields. Transl Psychiatry. Apr 26;9(1):143. (IF=5.28; citations according
	<u>to WOS=25</u> )
30.	Gustavsson, N., Marote, A., Pomeshchik, Y., Russ, K., Azevedo, C., Chumarina, M.,
	Goldwurm, S., Collin, A., Pinto, L., Salgado, A.J., Klementieva, O., Roybon, L., Savchenko,
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31.	Duarte, J.M., Gaspar, R., Caetano, L., Patrício, P., Soares-Cunha, C., Mateus-Pinheiro, A.,
	Alves, N.D., Santos, A.R., Ferreira, S.G., Sardinha, V., Oliveira, J.F., Fontes-Ribeiro, C.,
	Sousa, N., Cunha, R.A., Ambrósio, A.F., Pinto, L., Rodrigues, A.J.*, Gomes, C.* (2019).
	Region-specific control of microglia by adenosine A2A receptors: uncoupling anxiety and
	associated cognitive deficits in female rats. Glia. Jan 67(1):182-192. (IF=5.984; citations
	according to WOS=19)
32.	Assunção-Silva R.C., Mendes-Pinheiro B., Patrício P., Behie L, Teixeira F.G., Pinto L.,
	Salgado A.J.* (2018). Exploiting the impact of the secretome of MSCs isolated from different
	tissue sources on neuronal differentiation and axonal growth. Biochimie. Dec 155:83-91.
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33.	Guerra-Gomes S., Viana J.F., Nascimento D.S.M., Correia J.S., Sardinha V.M., Caetano I.,
	Sousa N., Pinto L.*#, Oliveira J.F.*# (2018). The Role of Astrocytic Calcium Signaling in the
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	(CSC-43) from a patient with sporadic Parkinson's disease. Stem Cell Res. Mar 27:82-85.
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WOS=36) 59. Bessa, J.M., Morais, M., Ferreira, L., Marques, F., Pinto, L., Palha, J.A., Almeida, O.F.X., and Sousa, N.\* (2013). Stress-induced anhedonia is associated with hypertrophy of medium spiny neurons of the nucleus accumbens. Transl Psychiatry. Jun 4;3:e266. (IF=4.360; citations according to WOS=83) 60. Mateus-Pinheiro, A., Patricio, P., Bessa, J.M., Sousa, N., and Pinto L.\* (2013). Cell genesis and dendritic plasticity: a neuroplastic pas de deux in the onset and remission from depression. **Molecular Psychiatry.** Jul 18(7):748-50. (IF=15.147; citations according to WOS=23) Patricio, P., Mateus-Pinheiro, A., Sousa, N. and Pinto L.\* (2013). Re-cycling paradigms: Cell 61. cycle regulation in adult hippocampal neurogenesis and implications for pathology. Mol Neurobiol. Aug 48(1):84-96. (IF=5.286; citations according to WOS=30) Mateus-Pinheiro, A.#, Pinto, L.#, Bessa, J.M., Morais, M., Alves, N.D., Monteiro, S., Patrício, 62. P., Almeida, O.F., and Sousa, N.\* (2013). Sustained remission from depressive-like behavior depends on hippocampal neurogenesis. Transl Psychiatry. Jan 15;3:e210. (IF=4.360; citations according to WOS=109) 63. Pinto, L., Mateus-Pinheiro, A., Morais, M., Bessa, J.M., and Sousa, N.\* (2012). Immuno-Golgi as a tool for analyzing neuronal 3D-dendritic structure in phenotypically characterized neurons. Plos One. 7(3):e33114. (IF=3.730; citations according to WOS=11) 64. Mateus-Pinheiro, A., Pinto, L., and Sousa, N.\* (2011). Epigenetic (de)regulation of adult hippocampal neurogenesis: implications for depression. Clinical Epigenetics. Nov 1;3:5. (IF=6.219; citations according to WOS=16) 65. Ninkovic, J., Pinto, L., Petricca, S., Lepier, A., Sun, J., Rieger, M.A., Schroeder, T., Cvekl, A., Favor, J., and Götz, M.\* (2010). The transcription factor Pax6 regulates survival of dopaminergic olfactory bulb neuron via crystalline alpha. Neuron. Nov 18;68(4):682-94. (IF=14.027; citations according to WOS=83) 66. Pinto, L., Drechsel, D., Schmid, M-T., Ninkovic, J., Irmler M., Brill M.S., Restani S., Gianfranceschi, L., Cerri, C., Weber, S.N., Tarabykin, V., Baer, K., Guillemot, F., Beckers, J., Zecevic, N., Dehay, C., Schorle, H., and Götz, M.\* (2009). AP2y regulates basal progenitor fate in a region- and layer-specific manner in the developing cortex. Nat Neurosci. Oct 12(10):1229-37. (IF=14.345; citations according to WOS=82) 67. Pinto, L., and Götz, M.\* (2008). Glial Cells as the Source of Neurons and Glia in the Developing and Adult CNS. Journal of Medical Sciences. 1(3):114-128. (IF=NA; citations according to WOS=NA) 68. Hall, A.C., Bonilla, S., Pinto, L., Attardo, A., Götz, M., Huttner, W.B., and Arenas E.\* (2008). Identification of floor plate radial glia as neurogenic progenitors of midbrain dopaminergic neurons. Glia. Jun 56(8):809-20. (IF=5.599; citations according to WOS=97) 69. Pinto, L., Mader, M.T., Irmler, M., Gentilini, M., Santoni, F., Drechsel, D., Blum, R., Stahl, R., Bulfone, A., Malatesta, P., Beckers, J., and Götz M.\* (2008). Prospective isolation of functionally distinct radial glial subtypes - lineage and transcriptome analysis. Mol Cell Neurosci. May 38(1):15-42. (IF=3.934; citations according to WOS=72) 70. Pinto, L., and Götz, M.\* (2007). Radial Glial cell heterogeneity - The source of diverse progeny in the CNS. Prog Neurobiol. Sep 83(1):2-23. (Front cover photograph of this issue) (IF=10.467; citations according to WOS=193) 71. Nikoletopoulou, V., Plachta, N., Allen, N.D., Pinto, L., Götz, M., and Barde, Y-A.\* (2007). Neurotrophin receptor-mediated death of misspecified neurons derived from embryonic stem cells lacking Pax6. Cell Stem Cell. Nov 1(5):529-40. (IF=16.826; citations according to WOS=42) 72. Castelo-Branco, G., Sousa, K., Bryja, V., Pinto, L., Wagner, J. and Arenas, E.\* (2006). Ventral midbrain glia express region-specific transcription factors and regulate dopaminergic neurogenesis through Wnt-5a secretion. Mol Cell Neurosci. Feb 31(2):251-62. (IF=4.607;

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#### **Book Chapters**

1.

Pinheiro A.M., **Pinto L.** and Sousa N. (2017). "Sistemas de memória", <u>Edições Lidel</u>. ISBN: 978-972-757-693-7

#### **Edited Books**

 Oliveira J. F., Catarina A.G., Vaz S.H. Sousa N. and Pinto, L., (2016). Glial Plasticity in Depression. <u>Frontiers Media SA</u>. ISSN 1664-8714; ISBN 978-2-88919-999-0; DOI 10.3389/978-2-88919-999-0

#### **Communications in conferences/congresses**

- Loureiro-Campos, E., Alves, N.D., Mateus-Pinheiro, A., Patrício, P., Machado-Santos, A.R., Sousa, N., Pinto, L. (2017). AP2y transcription factor as a modulator of hippocampal neurogenesis in an animal model of depression. <u>European Neuropsychopharmacology</u> 27;8539. (30<sup>th</sup> ECNP Congress)
- Loureiro-Campos, E., Alves, N.D., Mateus-Pinheiro, A., Patrício, P. Machado-Santos, A.R., Sousa, N., Pinto, L. (2017). The role of AP2y transcription factor in the modulation of adult glutamatergic neurogenesis in depression. <u>European Neuropsychopharmacology</u> 27;S27-28. (ECNP Workshop for Junior Scientists in Europe)
- Dioli, C., Patricio, P., Silva, J., Morais, M., Mateus-Pinheiro, A., Rodrigues, A.J., Vyas, S., Sousa, N., Bessa, J.M., Pinto, L., Sotiropoulos, I. (2017). Tau-dependent suppression of adult neurogenesis in the stressed hippocampus. <u>Journal of Neurochemistry</u> 142;138-139. (*ISN-ESN Meeting*).
- Alves, N.D., Correia, J.S., Patricio, P., Machado-Santos, A.R., Mateus-Pinheiro, A., Loureiro-Campos, E., Morais, M., Bessa, J.M., Sousa, N., Pinto, L. (2016). Adult neuroplasticity as a pathological trigger of recurrence in depression. <u>European Neuropsychopharmacology</u> 26;8448-8449. (29<sup>th</sup> ECNP Congress)
- Alves, N.D., Machado-Santos, A.R., Mateus-Pinheiro, A., Patricio, P., Correia, J.S., Morais, M., Bessa, J.M., Sousa, N., Pinto, L. (2015). Adult neuroplasticity as a pathological trigger of recurrence in depression. <u>European Neuropsychopharmacology</u> 25;S564-S565. (ECNP Workshop for Junior Scientists in Europe)
- Patricio, P., Mateus-Pinheiro, A., Machado-Santos, A., Alves, N., Morais, M., Bessa, J., Sousa, N., Pinto, L. (2015). Cell cycle regulation of the progenitor cells from the adult hippocampal dentate gyrus in depression and by antidepressants. <u>European Neuropsychopharmacology</u> 25;S134. DOI: 10.1016/s0924-977x(15)30080-8. (28<sup>th</sup> ECNP Congress)
- Patricio P., Mateus-Pinheiro, A., Machado-Santo, SA., Alves, N., Morais, M., Bessa, J., Sousa, N., Pinto, L. (2015). Cell cycle regulation of the progenitor cells from the adult hippocampal dentate gyrus in depression and by antidepressants. <u>European Neuropsychopharmacology</u> 25;S19-20. (*ECNP Workshop for Junior Scientists in Europe*)
- Teixeira, F.G., Serra, S.C., Panchalingam, K.M., Anjo, S.I., Manadas, B., Pinto, L., Sousa, N., Behie, L.A., Salgado, A.J. (2015). Mesenchymal Stem Cells Secretome as Modulator of Brain Repair: Effects on Neurogenesis and Parkinson's Disease Regeneration. <u>Tissue Engineering</u> 21;S61-62 (4<sup>th</sup> TERMIS World Congress)
- Lima, A., Reis, M., Oliveira, A.F., Sardinha, V.M., Mota, C., Pinto, L., Marques, F., Cerqueira, J., Sousa, N., Oliveira, J. (2013). Glial pathology in the prefrontal cortex affects the cognitive function of the rat. <u>Glia</u> 61;S79-80. (*11<sup>th</sup> European Meeting on Glial Cell Function in Health and Disease*)
- 10. Teixeira, F.G., Carvalho, M.M., Silva, N.A., Marques, F., Mesquita, S.D., Neves, N.M., Reis,

R.L., **Pinto**, L., Sousa, N., Salgado, A.J. (2012). Using the secretome of mesenchymal progenitors of the umbilical cord as a modulator of neural and glial survival, viability and differentiation. Journal of Tissue Engineering and Regenerative Medicine 6;281-282

- Stahl, R., Walcher, T., Pinto, L., Blum, R., Goetz, M. (2010). Identification and function of a novel nuclear protein in neurogenesis. <u>International Journal of Developmental Neuroscience</u> 28;680-681. DOI: 10.1016/j.ijdevneu.2010.07.117 (18<sup>th</sup> Biennial Meeting of the International Society for Developmental Neuroscience).
- Goetz, M., Tripathi, P., Pinto, L., Rite, I., Buffo, A. (2007). Radial glia, astrocytes and stem cells common mechanisms of neurogenesis? <u>Neuron Glia Biology</u> 2;S20-S20. (*Glia Meeting*)

# 8.2 COORDINATION/PARTICIPATION IN SCIENTIFIC OR TECHNOLOGICAL DEVELOPMENT PROJECTS

• <u>Total competitive funding</u> as Principal/Co-Principal or Coordinating Researcher: 1.769.954€ + 603.924€ salary grant.

• Total competitive as Principal/Co-Principal or Coordinating Researcher in the last 5 years: 1.497.051,69€.

## 8.2.1 ONGOING RESEARCH PROJECTS

2022-	"Health from Portugal (HfPT)", Portuguese Government Recovery and Resilience Plan (RRP) (ICVS application together with 101 consortium partners), Portugal. (2023-2027; Budget: 801.812,59€); PI/Coordinator of WP 9 (C1.; PPS85 and PPS86) Capacitation of clinical research centers).
2022-	"Hippocampal connectivity and behavioral performance in health and depression: where does adult astrogliogenesis stand?". <b>Portuguese Foundation for Science and Technology (FCT)</b> , Portugal. 2022.02201.PTDC (2023-2025; Budget: 249.392,10€; Principal Investigator).
2022-	"Impact of hippocampal Adult-Born Neurons for Brain Circuitry and Behavior in the context of Depression ". <b>Programa Pessoa – Bilateral Cooperation Portugal-France, Portuguese</b> <b>Foundation for Science and Technology (FCT)</b> , Portugal. <i>CBM 2021.09229</i> (2022-2024; 2000€/year; Principal Investigator).
2021	"Understanding the pathophysiology of depression by interrogating the role of adult astrogliogenesis in hippocampal connectivity". <b>Portuguese Foundation for Science and Technology (FCT)</b> , Portugal. 2020.02855.CEECIND (2021-2027; salary grant 335.811 $\in$ ; <u>Principal Investigator</u> ).
2021-	"Neuron-astrocyte signaling in depression: learning from astrocytes how to effectively treat depression". Health Research 2021, La Caixa Foundation, Spain. <i>HR21-01020</i> (2020-2023; 499.478€; Task Coordinator)
2020-	"Neuronal circuits of reward and aversion: where do endogenous opioids stand?". <b>Portuguese</b> <b>Foundation for Science and Technology (FCT)</b> , Portugal. <i>PTDC/MED-NEU/4804/2020</i> (2020-2023; 248.430€; Task Coordinator).
2020-	"Encoding reward and aversion in the mammalian brain: the overlooked role of endogenous opioids". <b>Health Research 2020, La Caixa Foundation</b> , Spain. <i>HR20-01000</i> (2020-2023; 499,788€; Task Coordinator)
2019-	"SynChronize – Focused Ultrasound combined with Stem Cells Secretome and Pharmacotherapies: establishing a Multimodal path for Parkinson's Disease repair". Mantero Belard Prize for Neurodegenerative Diseases, Santa Casa da Misericórdia de Lisboa (SCML), Portugal. (2020-2023; 200.000€; Co-Principal Investigator).

#### 8.2.2 COMPLETED RESEARCH PROJECTS

- 2019-2021 "Impact of adult astrogliogenesis in the healthy and depressed hippocampal dentate gyrus".
   Nature Research Awards for Driving Global Impact: 2019 Brain Sciences, Nature in partnership with Tencent, USA. (2019-2021; 10.000\$ USD/9.080€; Principal Investigator).
- 2018-2021 "Impact of prenatal stress in the reward system: from depression to addiction and back". **Portuguese Foundation for Science and Technology (FCT)**, Portugal. *PTDC/MED-NEU/29071/2017* (2018-2021; 237.976€; Task Coordinator).
- 2017-2021 "Metabolic Dysfunctions associated with Pharmacological Treatment of Schizophrenia". Horizon 2020. Collaborative project *H2020-MSCA-ITN-ETN-2016* (2017-2020; extended until June 2021); 3.750,899€; Partner Coordinator/Principal Investigator and Legal Representative (LEAR) of 238.356€).
- 2016-2020 "Predicting the effects of antidepressants in the recovery, remission and relapse of depression: a novel multimodal approach". Portuguese Foundation for Science and Technology (FCT), Portugal. *PTDC/DTP-PIC/6936/2014* (<u>198.058€; Task Coordinator</u>).
- 2016-2019 "New avenues for the development of personalized medical interventions for neurological, oncologic and surgical disorders – PersonalizedNOS". Northern Portugal Regional Operational Programme (NORTE 2020), under the Portugal 2020 Partnership Agreement, through the European Regional Development Fund (FEDER). NORTE-01-0145-FEDER-000013 (3 289 317,45€; Task Coordinator – management of 18.000€ for research).
- 2015-2020 "(Epi)genetic control of brain plasticity and function: a focus on depression". Portuguese Foundation for Science and Technology (FCT), Portugal. IF/01079/2014 (50.000 $\notin$  + salary grant 268.113 $\notin$ ; Principal Investigator).
- 2015-2020 "Gliogenesis control of brain neuroplasticity, neurophysiology and cognitive function". **Bial** Foundation, Portugal. *Grant* 427/14 (48.000€; Principal Investigator).
- 2014-2016 "Functional analysis of TET-mediated epigenetic regulation of neurogenesis". **EpiGeneSys**, **FP7 European Community-funded Network of Excellence**. Small Scale Collaborative project (10.000€; Principal Investigator).
- 2013-2016 "Study of the antidepressant properties of Pirlindol in an animal model of Chronic Mild Stress". **TecniMed**, Portugal. (200.000€; Task Coordinator).
- 2013-2014 "Could gliogenesis be an important mechanism underlying the pathophysiology of depression?". Life and Health Sciences Research Institute (ICVS), University of Minho. (8.000€; Principal Investigator).
- 2012-2015 "The interplay between astrocytes and neurons in the progression of stress-induced pathologies". Portuguese Foundation for Science and Technology (FCT), Portugal. *PTDC/SAU-NSC/118194/2010* (150.000€; Task Coordinator).
- 2012-2015 "Translation of neuron-glia interactions in complex cognitive functions". **Bial Foundation**, Portugal. *Grant 61/10* (50.000€; Team Member).
- 2012-2014 "Development of an automated system to expose rodents to chronic stress and modulate neuropsychiatric disorders". Vale ID&T - National Strategic Reference Framework (QREN). Project N° 2012/23712 (33.313€; Principal Investigator). This project led to the creation of an automated rack to model depression in animal models.
- 2011-2012 "Evaluation of the behavioral effects of BI and MTEP compounds in an animal model of depression". **Boehringer Ingelheim Pharma GbmH**, Germany. (<u>100.000€; Principal</u> Investigator).

- 2010-2013 "Multimodal analysis of the neurobiology of depression". **Portuguese Foundation for** Science and Technology (FCT), Portugal. *PTDC/SAU-NEU/105180/2008* (<u>120.000€; Task</u> Coordinator).
- 2010-2012 "Neudesina function study of a new neurotrophic factor". **Portuguese Foundation for** Science and Technology (FCT), Portugal. *PTDC/SAU-OSM/104475/2008* (<u>36.000€; Team</u> <u>Member</u>).

#### 8.3 INTERVENTION IN THE SCIENTIFIC COMMUNITY

#### 8.3.1 ORGANIZATION OF SCIENTIFIC EVENTS

#### Scientific meetings/symposia

- 2018-2019 **Co-organizer** of the *European Behavioural Pharmacology Society (EBPS) Biennial Meeting*, Braga, Portugal, 28-31 August 2019.
- 2019 **Organizer** of the *Symposium* "Neuroinflammation and glial plasticity in anxiety and depression: Underlying mechanisms and novel therapeutic targets" at the 7<sup>th</sup> Mediterranean Neuroscience Society Conference, Marrakech, Marocco, 23-27 June 2019.
- 2016-2017 **Co-organizer** of the 15<sup>th</sup> Meeting of the Portuguese Society of Neuroscience (SPN), Braga, Portugal, 25-26 May 2017.
- 2014 **Co-organizer** of the *EMBO workshop* "Epigenetic plasticity: Implications in neural (dys)function", 65 participants, University of Minho, Braga, Portugal, 22-25 October 2014.
- 2003 **Co-organizer** of the *I*<sup>st</sup> National Meeting of Biochemistry Students, Coimbra, Portugal.

#### Post-graduation/Advanced training courses

- Co-organizer of the advanced course "Being a bio-entrepreneur" (8th Edition), Life and 2022 Health Sciences Research Institute (ICVS), Braga, Portugal, 7-25 March 2022. 2021 **Co-organizer** of the advanced course "Being a bio-entrepreneur" (7<sup>th</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 2-19 March 2021. **Co-organizer** of the advanced course "Being a bio-entrepreneur" (6<sup>th</sup> Edition), Life and 2020 Health Sciences Research Institute (ICVS), Braga, Portugal, 10-28 February 2020. **Co-organizer** of the advanced course "Being a bio-entrepreneur" (5<sup>th</sup> Edition), Life and 2019 Health Sciences Research Institute (ICVS), Braga, Portugal, 4-22 March 2019. **Co-organizer** of the advanced course "Being a bio-entrepreneur" (4<sup>th</sup> Edition), Life and 2018 Health Sciences Research Institute (ICVS), Braga, Portugal, 2-20 April 2018. 2017 Co-organizer of the advanced course "Molecular and cellular analysis: essential toolkit for in vitro cell cultures, gene expression and microscopy", Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 15 May - 2 June 2017. 2017 Co-organizer of the advanced course "Advanced Hands-on the Rodent Brain: from intracellular trafficking to brain connectome", Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 26 April - 12 May 2017. 2016 Co-organizer of the advanced course "Epigenetics – from mechanisms to disease", Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 18-29 April 2016. 2016 Co-organizer of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (6<sup>th</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 29 February - 10 March 2016. 2015 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells
- 2015 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (5<sup>th</sup> Edition), Life and Health Sciences

<sup>2022-2023</sup> **Co-organizer/Member of the Scientific Programme** Committee for the *36th European* College of Neuropsychopharmacology (ECNP) Congress, Barcelona, Spain, 07-10 October 2023.

Research Institute (ICVS), Braga, Portugal, 2-13 March 2015.

- 2014 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (4<sup>th</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 10-14 March 2014.
- 2013 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (3<sup>rd</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 11-15 March 2013.
- 2012 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (2<sup>nd</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 12-16 February 2012.
- 2011 **Co-organizer** of the advanced course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (1<sup>st</sup> Edition), Life and Health Sciences Research Institute (ICVS), Braga, Portugal, 31 January 4 February 2011.

#### 8.3.2 EDITORIAL BOARD MEMBERSHIPS

- 2022- **Topic Editor**, "Global Excellence in Emotion Regulation and Processing: Europe" [RT35072] for the Journal *Frontiers in Behavioral Neuroscience* (ongoing)
- 2022- Associate and Topic Editor, "Frontiers in Neurogenesis series II" for the Journal *Cells* (ongoing)
- 2021 Associate and Topic Editor, "Frontiers in Neurogenesis series I" for the Journal Cells
- 2021 **Topic Editor**, "Neural Plasticity and Behavioral Responses to Adversity" (ID: 18284) for the Journal *Frontiers in Behavioral Neuroscience*
- 2020- Associate Editor Editorial Board of Neurodegeneration (specialty section of *Frontiers in Neuroscience, Frontiers in Neurology and Frontiers in Psychiatry*)
- 2019- **Review Editor**, Editorial Board of Neurodegeneration for the Journals *Frontiers in Neurology, Frontiers in Neuroscience and Frontiers in Psychiatry.*
- 2018- **Review Editor,** Editorial Board of Neurogenesis for the Journal *Frontiers in Neuroscience*.
- 2017- **Member**, Editorial Board of the Journal *EC Neurology* and Journal *Current Pharmacogenomics and Personalized Medicine*.
- 2016- Member, Editorial Board of the Journal *Matters*.
- 2015-2016 **Topic Editor**, "Glial plasticity in Depression" for the Journal *Frontiers in Cellular Neuroscience*.
- 2013- Member, Editorial Board of the Journal *Advances in Biology*.

#### 8.3.3 EVALUATION/REVISION OF SCIENTIFIC ARTICLES

- 2022- **Reviewer** for the Journals Brain Pathology, Journal of Neuroscience, Molecular Neurobiology, Neuropharmacology, Frontiers in Behavioral Neuroscience.
- 2021- **Reviewer** for the Journals Neurobiology of Stress, Frontiers in Psychiatry, Neuroscience, Neuroscience Letters, Cells, Psychoneuroendocrinology, Frontiers in Neuroscience.
- 2020- **Reviewer** for the Journals *Molecular Psychiatry, Translational Psychiatry, Frontiers in Behavioral Neuroscience.*
- 2019- **Reviewer** for the Journals European Journal of Neuroscience, Journal of Neural Transmission.
- 2018- **Reviewer** for the Journals Brain and Behavioral Research, International Journal of Neuroscience, Neurochemical Research, Frontiers in Neuroscience.
- 2017- **Reviewer** for the Journals Oncotarget, Journal of Endocrinology, PeerJ, Hippocampus, Journal of Neuroimmunology.
- 2016- Reviewer for the Journals European Neuropsychopharmacology, Journal of

*Psychopharmacology, Genes Brain and Behavior, Molecular Neurobiology* and *Molecular Psychiatry.* 

2014- **Reviewer** for the Journals Neuroscience, Plos One, Frontiers in Behavioral Neuroscience, Frontiers in Cellular Neuroscience, British Journal of Pharmacology, International Journal of Neuropsychopharmacology, Neuropharmacology.

#### **8.3.4 EVALUATION OF PROJECTS**

- 2022 **Project Reviewer,** *National Science Centre*, Poland.
- 2021- **Project Reviewer**, *Research Foundation Flanders (FWO)*, Belgium (panels 2021 2023).
- 2021 **Project Reviewer**, *Graduate Women in Science (GWIS)* National Fellowships Program, USA.
- 2020- Scientific Reports Evaluator, Member of the Evaluation Committee for Final Scientific Reports of projects IC&DT 2019-2022| CA Experimental Biology and Biochemistry, *Foundation for Science and Technology (FCT)*, Portugal.
- 2019 **Project Reviewer**, *Graduate Women in Science (GWIS)* National Fellowships Program, USA.
- 2018 **Project Reviewer**, *ERA-NET NEURON NEURON JTC2018- Mental disorders*, Germany.
- 2018 **Project Reviewer**, *Research Foundation Flanders (FWO)*, Belgium.
- 2014-2016 **Project Reviewer**, *IdEx Programme of Excellence*, University of Bordeaux, France.
- 2014 Scientific Evaluator of Projects, French National Research Agency (ANR), France.

#### 8.3.5 COMMUNICATIONS IN CONFERENCES/CONGRESSES

#### **Oral Communications in Symposia**

- 31/05/2022 "Adult astrogliogenesis as a key mechanism underlying the pathophysiology of stress-induced depression". 8th Mediterranean Neuroscience Society (MNS) Conference, Dubrovnik, Croatia, May 29-June 2 2022.
- 05/10/2021 "Adult neuro- and astrogliogenesis as key mechanisms underlying the pathophysiology of stress-induced depression". **34**<sup>th</sup> **ECNP Congress**, Lisbon, Portugal, 2-5 October 2021.
- 31/08/2019 "Glial plasticity as a key mechanism underlying the pathophysiology of depression". **EBPS Biennial Meeting**, Braga, Portugal, 28-31 August 2019.
- 25/06/2019 "Glial plasticity as a key mechanism underlying the pathophysiology of depression". 7<sup>th</sup> Mediterranean Neuroscience Society Conference, Marrakech, Marocco, 23-27 June 2019.
- 18/04/2018 "Impact of adult hippocampal cytogenesis modulation on cognitive behavior and brain physiology". 2018 International Conference on Learning and Memory, California, USA, 18-22 April 2018.
- 12/06/2017 "Genetic and epigenetic factors that modulate neuro- and glio-plasticity: Relevance to depression". 6<sup>th</sup> Mediterranean Neuroscience Society Conference, St. Julian's, Malta, 12-15 June 2017.
- 19/09/2016 "Genetic and epigenetic factors that modulate stress-induced neuro- and glio-plasticity: Relevance to Depression". **29**<sup>th</sup> **ECNP Congress**, Vienna, Austria, 17-20 September 2016.
- 03/07/2016 "Genetic and epigenetic factors that modulate stress-induced neuro- and glio-plasticity: Relevance to Depression". 10<sup>th</sup> FENS Forum of Neuroscience, Copenhagen, Denmark, 2-6 July 2016.
- 24/06/2014 "Cell genesis and dendritic plasticity: A neuroplastic pas de deux in the onset and remission from depression". **29<sup>th</sup> CINP World Congress**, Vancouver, Canada, 22-26 June 2014.

#### **Communications in Poster**

2022 "Gliogenesis control of brain neuroplasticity, neurophysiology and cognitive function". 13<sup>th</sup>
Symposium of Bial Foundation, Porto, Portugal, 6-9 April 2022 (with oral communication).
2015 "Cell genesis and dendritic plasticity: A neuroplastic pas de deux in the onset and remission from depression". XII European Meeting on Glial Cells in Health and Disease, Bilbao,

	Spain, 15-18 July 2015.
2013	"The role of AP2 $\gamma$ in adult neurogenesis modulation: Impacts for stress-related disorders". $13^{rd}$
	Meeting of the Portuguese Society for Neurosciences, Luso, Portugal, May 30 <sup>th</sup> to June 1 <sup>st</sup>
	2013.
2012	"Immuno-Golgi as a tool for analyzing neuronal 3D-dendritic structure in phenotypically
	characterized neurons in animals submitted to chronic mild stress". 42 <sup>nd</sup> Annual Meeting of
	the Society for Neuroscience, New Orleans, USA, 13-17 October 2012.
2012	"Immuno-Golgi as a tool for analyzing neuronal 3D-dendritic structure in phenotypically
	characterized neurons in animals submitted to chronic mild stress". 8th FENS Forum of
	Neuroscience Congress, Barcelona, Spain, 14-18 July 2012.
2012	"The role of AP2 $\gamma$ in adult neurogenesis modulation: Impacts for stress-related disorders". 8 <sup>th</sup>
	FENS Forum of Neuroscience Congress, Barcelona, Spain, 14-18 July 2012.
2012	"Sustained remission from depressive-like behavior depends on hippocampal neurogenesis".
	6 <sup>th</sup> National Meeting on Cell Signaling- SINAL2012, Braga, Portugal, 12-13 April 2012.
2010	"Long-lasting behavioral and molecular effects induced by chronic mild stress and by
	antidepressants treatment". 40 <sup>th</sup> Annual Meeting of the Society for Neuroscience, San Diego,
	USA, 12-16 November 2010.
2009	"AP2y regulates basal progenitor fate in a region- and layer-specific manner in the developing
	cortex". 11th Meeting of the Portuguese Society of Neurosciences, Braga, Portugal, 4-6 June
	2009.
2008	"AP2y regulates basal progenitor fate and upper layer neuron specification in the mouse
	cerebral cortex". <b>3<sup>rd</sup> Cortical Development Meeting</b> , Crete, Greece, 22-25 May 2008.
2007	"Transcriptional profile of neurogenic versus non-neurogenic radial glial cells in the
	developing cortex". IBRO Satellite Meeting on Neural Development, Cairns, Australia, 9-
• • • •	11 July 2007.
2007	"AP2γ regulates the generation of basal progenitors and upper layer neurons in the developing
• • • •	cortex". 7th IBRO World Congress of Neuroscience, Melbourne, Australia, 12-17 July 2007.
2005	"Ventral midbrain glia modulate dopaminergic neuron development by secreting Wnts". Stem
<b>2</b> 0 0 4	Cells Keystone, Canada, 5-10 February 2005.
2004	"From stem cells to midbrain dopaminergic neurons". MBB (Medical Biochemistry and
	Biophysics) Conference, Stockholm, March 2004.

## 8.3.6 LECTURES PRESENTATION AS INVITED SPEAKER

- 18/10/2022 "Adult astrogliogenesis: a key mechanism underlying the pathophysiology of stress-induced depression". VI Symposium of the Portuguese Glial Network, Porto, Portugal.
- 29/09/2022 "Adult cytogenesis as a key mechanism underlying the pathophysiology of stress-induced depression". **iMM Post-Doc Day**, Lisbon, Portugal.
- 07/07/2022 "Adult astrogliogenesis as a key mechanism underlying the pathophysiology of stress-induced depression". Satellite event of the FENS Forum 2022, Paris, France
- 10/03/2022 "Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to Depression". 12° International Meeting of the Portuguese Society for Stem Cells and Cell Therapies, Braga, Portugal.
- 19/07/2021 "Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to Depression". Seminaries in Mental Health organized by the Portuguese Society for Neuroscience (SPN), Portugal.
- 21/04/2021 "Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to Depression". Seminaries in the Institute for Clinical and Biomedical Research (iCBR), Coimbra, Portugal.
- 13/06/2019 "Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to

	Depression". Eurogenesis 4 <sup>th</sup> Meeting, Bordeaux, France, 11-13 June 2019.
29/03/2019	"Genetic and Epigenetic factors that modulate stress-induced Neuro- and Glio-plasticity in an
	animal model of Depression". Symposium on Animal Models of Affective Disorders, Ruhr-
	University of Bochum, Bochum, Germany.
03/10/2018	"Impact of adult hippocampal cytogenesis modulation on behavior and brain physiology:
	relevance for Depression". Seminaries in the Faculty of Medicine of the University of Porto
	(FMUP), Porto, Portugal.
18/05/2018	"Beyond new neurons in the adult brain: on the role of adult glial plasticity in the depressed
	brain". III Symposium of the Portuguese Glial Network, Porto, Portugal.
19/10/2017	"Behavioral and Molecular solutions for pre-clinical testing of compounds". <b>3<sup>rd</sup> PhD Students</b>
	Meeting of the Mind-Brain College in the University of Lisbon, Lisbon, Portugal.
04/05/2017	"Genetic and Epigenetic factors that modulate stress-induced Neuro- and Glio-plasticity".
	Institute of Stem Cell Research, Helmholtz Center Munich, Munich, Germany.
02/11/2016	"Neuro- and Glio-plasticity in depression". I Symposium of the Portuguese Glial Network,
	Braga, Portugal.
06/05/2016	"Hippocampal Neuro- and Glio-plasticity: Insights on its importance in the healthy and
	depressed brain". 3B's - Biomaterials, Biodegradables and Biomimetics Seminars,
	Guimarães, Portugal.
17/03/2016	"Hippocampal Neuro- and Glio-plasticity: Insights on its importance in the healthy and
	depressed brain". St. George's University-ICVS Joint Meeting, Braga, Portugal.
04/12/2015	"Genetic and Epigenetic Factors that Modulate Stress-Induced Neuro- and Glia-Plasticity:
	Relevance for Depression". NeuroConferences @ ICVS, Braga, Portugal, 3-5 December
	2015.
05/06/2015	"Genetic and epigenetic factors that modulate neuro and glio-plasticity in depression". CINP
	Thematic Meeting, Dublin, Ireland, 4-6 June 2015.
16/04/2015	"Seeking and testing new therapeutical approaches in Neurosciences". Health Clusters
	Portugal Meeting, Coimbra, Portugal.
11/05/2015	"Epigenetic factors that modulate Neuro and Glio-plasticity in Depression". 1st Joint
	Neuromeeting IBI-ICVS, Instituto de Investigación Biomédica, Vigo, Spain.
30/05/2015	"Genetic and Epigenetic Factors that Modulate Stress-Induced Neuro- and Glio-Plasticity:
	Relevance for Depression". Thomas Jefferson University-ICVS Joint Neuroscience
	Symposium, Thomas Jefferson University, Philadelphia, USA.
04/06/2009	"AP2 $\gamma$ regulates basal progenitor fate in a region- and layer-specific manner in the developing
	cortex". 11 <sup>th</sup> Meeting of the Portuguese Society of Neurosciences, Braga, Portugal, 3-6 June
	2009.
24/05/2008	"AP2 $\gamma$ regulates basal progenitor fate and upper layer neuron specification in the mouse
	cerebral cortex". 3 <sup>rd</sup> Cortical Development Meeting, Crete, Greece, 22-25 May 2008.

## 8.3.7 ACTIVITIES IN SCIENTIFIC SOCIETIES

- 2022- **Co-Founder Member** of the European College of NeuroPsychopharmacolgy (ECNP) Network 'Resilience' (budget received: 15.000€).
- 2021- Member of the Scientific Programme Committee for the 36<sup>th</sup> ECNP Congress 2023
- 2021- **Member** of the Research Foundation Flanders (FWO) Review College (panels 2021 2023)
- 2019- **Co-founder Member** of the European College of NeuroPsychopharmacolgy (ECNP) Thematic Working Group on Stress Resilience (<u>budget received: 15.000€</u>).
- 2019- **Member** of the European College of Neuropsychopharmacology (ECNP).
- 2018- Member of the European Behavioural Pharmacology Society (EBPS).
- 2018-2019 Scientific Committee Member, 16<sup>th</sup> Meeting of the Portuguese Society of Neuroscience.
- 2013-2015 Associate Member, of EpiGeneSys, FP7 European Community-funded Network of

Excellence.

- 2012- **Member** of the Portuguese Society of Neuroscience (SPN).
- 2010- **Member** of the Society for Neuroscience (SFN).

## 8.3.8 FELLOWSHIPS, GRANTS AND AWARDS/PRIZES

- 2022 SPN Best Manuscript Award for the paper "Hippocampal cytogenesis abrogation impairs inter-regional communication between the hippocampus and prefrontal cortex and promotes the time-dependent manifestation of emotional and cognitive deficits.", published in Molecular Psychiatry, 2021.
- 2021 **ECNP's 2021 Citation Prize** for the paper 'Stress resilience during the coronavirus pandemic", published in European Neuropsychopharmacoly, 2020.
- 2020Assistant Investigator (FCT Scientific Employment Position, 8% approval rate),<br/>Portuguese Foundation for Science and Technology, Portugal (335.811€ salary for 6 years).
- 2019 Nature Research Award for Driving Global Impact: 2019 Brain Sciences, USA, runner up award, 10.000\$ USD/9.080€.
- 2015- Investigator FCT Starting Grant (IF-FCT, 16% approval rate), Portuguese Foundation for Science and Technology, Portugal, (50.000€ + 268.113€ salary for 5 years).
- 2013-2015 Assistant Researcher Grant, ON.2 SR&TD Integrated Program, Programa Operacional Regional do Norte (ON.2), QREN, Portugal.
- 2013 **1<sup>st</sup> Prize of the 13<sup>th</sup> edition of the Young Entrepreneur Award**, Portuguese Association of Young Entrepreneurs (ANJE), Portugal, 20.000€.
- 2011 1<sup>st</sup> Prize of Business Ideas, TecMinho, Portugal, 5.000€.
- 2011 Prize of Young Entrepreneur in the SpinUM competition, TecMinho, Portugal, 5.000€.
- 2009-2013 **Post-Doctoral fellowship**, Portuguese Foundation for Science and Technology, Portugal.
- 2009 **"Doktorandenpreis des VdFF 2009"** (Award of the best PhD), Helmholtz Zentrum München, Germany, 1.000€.
- 2004-2008 PhD scholarship, Portuguese Foundation for Science and Technology (FCT), Portugal.
- 2008 **Best Poster Award**, 3<sup>rd</sup> Cortical Development Meeting, Crete, Greece.
- 2007 Best Poster Award, 7th IBRO World Congress of Neuroscience, Melbourne, Australia.

# 9. KNOWLEDGE TRANSFER AND VALORIZATION

## 9.1 PATENTS

- Salgado A., Marote A., Pinto L., Pinheiro B. Compositions for therapy or treatment of Parkinson's disease, methods and uses thereof. (2020) <u>Registered European Patent</u> 20167348.0-1118.
- Salgado A., Silva N., Silva R., Gomes E., Pinto L., Serra S., Ribeiro J., Monteiro S., Pinho A. Compositions for treatment of spinal cord injury, methods and uses thereof. (2020) Registered European Patent 20166914.0-1112.
- Pinto L., Pinheiro A., Bessa J., Morais M., Sousa N. Immuno-Golgi as a tool for analyzing neuronal 3D-dendritic structure in phenotypically characterized neurons. (2011) National Patent nr 105555, 2011. N/Ref.: PPE 48174/13.

## 9.2 ACTIVITIES OF COOPERATION AND/OR LINKED WITH THE INDUSTRY

2022- **Co-Supervision of 1 internship student** of the *Master Program in Biotechnology*, University

of Minho – <u>development of a project in cooperation with the start-up BNML – Molecular &</u> <u>Behavioral Lab (Ana Rita Dourado - project is detailed in point 10.4.3)</u>.

- 2020- **Co-Supervision of 1 PhD student** of the *PhD Program in Applied Health Sciences* development of projects in cooperation with Industrial partners (Andreia Vaz project is detailed in point 10.3.1).
- 22/11/2017 **Co-organizer of the Forum Match@Saúde Workshop & Mentoring** *Connecting Research and Industry in Healthcare*, University of Minho, Braga, Portugal. (Selection of teams with technological projects in the field of Healthcare to be supported by the Industry).
- 2015-2021 **Co-Supervision of 4 PhD students** of the *PhD Program in Applied Health Sciences* development of projects in cooperation with Industrial partners (Rui Lima, Ana Marote, Rita Silva and Joana Sousa projects are detailed in point 10.3.1).
- 2012-2015 **Development of a prototype** automated system to expose rodents to chronic stress and modulate neuropsychiatric disorders funded by the **National Strategic Reference Framework (QREN;** <u>33.313€</u>). (This system is finalized and currently being tested with animals. It will allow the standardization of stress-induced animal models and to provide a more effective and reproducible services of unparalleled and unprecedented value compared to the domestic and international markets).
- 2012- **CEO and Co-Founder of the spin-off company** BNML Behavioral & Molecular Lab LDA, Life and Health Sciences Research Institute (ICVS), University of Minho, Portugal (research sales/contracts with the Industry from <math>2014-2020 1 369  $279 \in$ ).

## 9.3 DISSEMINATION OF SCIENCE AND TECHNOLOGY

- 17/03/2021 Seminar about "*Diary of a stressed neuron*" at the CAF EB, Pontinha, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 15-19 March 2021.
- 16/03/2021Seminar about "Diary of a stressed neuron" at the EB 2,3 D. Pedro IV, Queluz, Portugal.Brain Awareness Week, Dana Alliance for Brain Initiatives, 15-19 March 2021.
- 15/03/2021 Seminar about "*Diary of a stressed neuron*" at the Escola Básica Dr. Joaquim de Barros -Agrupamento de Escolas de Paço de Arcos, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 15-19 March 2021.
- 10/12/2019 Interview for the TV program "Mentes que Brilham" of Porto Canal channel about "Brain cytogenesis processes and Depression" related with the Prize from Nature Research Awards for Driving Global Impact 2019 - Brain Sciences.
- 21/11/2019 **Seminar** about "*Research in Neurosciences at the School of Medicine of the University of Minho*", 1<sup>st</sup> cycle students, João Paulo II School, Braga, Portugal.
- 20/11/2019 Interview in the Days of the Future program of the Antena 1 Radio about "*Brain plasticity* and Depression" related with the Prize from Nature Research Awards for Driving Global Impact 2019 - Brain Sciences.
- 09/08/2019 Interview in the UM I&D program of the RUM- Minho University Radio about "Brain plasticity and Depression" related with the shortlist for the Prize from Nature Research Awards for Driving Global Impact 2019 Brain Sciences.
- 12/04/2019 Interviewer in the Q&A session with Jorge Santos da Silva "From research to Mckinsey & Company", ICVS Open Day 2019, University of Minho, Braga, Portugal.
- 14/03/2019 Seminar about "*Diary of a neuron*" at the Vocational School of Braga, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 11-17 March 2019.
- 02/06/2017 **Presentation** in the ICVS/EM spin-offs showcase, **ICVS Open Day 2017**, University of Minho, Braga, Portugal.
- 15/03/2017Seminar about "Diary of a stressed neuron" at the Vocational School of Braga, Portugal.Brain Awareness Week, Dana Alliance for Brain Initiatives, 13-19 March 2017.
- 25/11/2016 Interview for the TV program "Mentes que Brilham" of Porto Canal channel about "The

	role of AP2y in the production of new neurons in the adult brain".
22/11/2016	<b>Participation in practical sessions</b> for the outreach activity " <i>International Week of Science and Technology</i> ", Life and Health Sciences Research Institute, University of Minho, Braga, Portugal, 18-22 November 2016
27/10/2016	Interview for the Online Newspaper Saúde Online about "AP2y protein induces the production of new neurons".
26/10/2016	<b>Interview</b> for the <b>Radio Antena Minho</b> about "AP2y protein induces the production of new neurons - study done by UMinho".
25/10/2016	Interview for TVI24 about "Portuguese Scientists discover how to produce new neurons".
23/10/2016	<b>Interview</b> for the <b>Online Newspaper Agência Lusa</b> about "Team from UMinho discover protein that induces the production of new neurons in the adult brain".
18/03/2016	Seminar about " <i>Diary of a stressed neuron</i> " at the School EB 2, 3 of Prado, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 14-20 March 2016.
18/03/2015	<ul><li>Seminar about "<i>Diary of a stressed neuron</i>" at the School EB 2, 3 of Serzedelo, Portugal.</li><li>Brain Awareness Week, Dana Alliance for Brain Initiatives, 16-22 March 2015.</li></ul>
23/11/2014	<b>Participation in practical sessions</b> for the outreach activity " <i>Science and Technology Week</i> ", Life and Health Sciences Research Institute, University of Minho, Braga, Portugal, 23-25 November 2014.
08/11/2014	<b>Practical session</b> "How we can visualize proliferating cells" in Barcelos High School, Portugal.
08/11/2014	Lecture about "Is the formation of new neurons relevant to fight against cognitive decline in aging and in Alzheimer's disease?" at the Municipal Library of Barcelos, Portugal. Initiative "The Neurosciences in the Municipality of Barcelos".
12/03/2014	Seminar about " <i>Diary of a stressed neuron</i> " at the High School of Guimarães, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 10-16 March 2014.
13/03/2013	Seminar about " <i>Diary of a neuron</i> " at the Vocational School of Vila Verde, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 9-16 March 2013.
12/03/2012	Seminar about " <i>Diary of a stressed neuron</i> " at the High School of Vila Verde, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 12-18 March 2012.
24/11/2011	<b>Participation in practical sessions</b> for the outreach activity " <i>Physicians and Scientists for a day: Science and Technology Week</i> ", Life and Health Sciences Research Institute, University of Minho, Braga, Portugal, 23-25 November 2011.
30/09/2011	<b>Interview</b> for the <b>Newspaper Correio do Minho</b> about "University of Minho: Depression reduces the number of newborn neurons".
15/03/2010	Seminar about " <i>Diary of a stressed neuron</i> " at the High School of Vila Verde, Portugal. Brain Awareness Week, Dana Alliance for Brain Initiatives, 15-21 March 2010.
15/09/2009	<b>Interview</b> for the <b>Newspaper Público</b> about "Portuguese discover gene involved in the formation of neurons".
03/2009	<b>Interview</b> in the <b>TV program "Clinic" from Porto Canal channel</b> about "Discovery of the gene AP2y that is involved in the generation of neurons".

# **10. OTHER RELEVANT ACTIVITIES**

# **10.1 ACADEMIC MANAGEMENT BODIES**

2022- Team Coordinator of the "Brain circuits and neuron-glia adaptations" thematic line, Life and

Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal.

- 2021- Coordinator of the Post-graduation Advanced Courses, School of Medicine, University of Minho, Braga, Portugal.
- 2017- **Coordinator of Bio-Entrepreneurship**, Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal.
- 2016 **Member**, Working Group for Project applications to the North Portugal Regional Coordination and Development Commission (CCDR-N), Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal.
- 2016 **Member**, Entrepreneurship Working Group, Life and Health Sciences Research Institute (ICVS), University of Minho, Portugal.

#### **10.2 SCIENTIFIC/ACADEMIC JURIES IN EXTERNAL INSTITUTIONS**

- 11/10/2022 Thesis opponent of the **MSc student Helena Margarida Teixeira Ferreira**, Thesis title *"Mother-offspring relationship in autism spectrum disorder: influence on development and behavior"*. **Master in Biomedical Research**, Faculty of Medicine, University of Coimbra, Coimbra, Portugal.
- 13/09/2022 Thesis opponent of the **PhD student Rui Miguel Silva Rodrigues**, Thesis title "*Catalysing brain plasticity through adult neural stem cell modulation: the role of cannabinoids and neurotrophic factors*". **PhD in Biomedical Sciences**, Faculty of Medicine, University of Lisbon, Lisbon, Portugal.
- 14/01/2022 Thesis opponent of the **PhD student Teresa Correia Soares Canedo**, Thesis title "Unveiling the cellular and molecular players involved in methemphetamine induced neuroinflammation: focus on astrocyte-microglial crosstalk". Faculty of Medicine, University of Porto, Porto, Portugal.
- 22/10/2021 Thesis opponent of the **MSc student Ana Rita Gonçalves Gaspar,** Thesis title "*Microglia* morphology and susceptibility to depression – impact of sex differences". **Master in Biomedical Research**, Faculty of Medicine, University of Coimbra, Coimbra, Portugal.
- 21/10/2019 Thesis opponent of the **MSc student Inês Moreira Ribeiro**, Thesis title "*Neuron-Microglia* crosstalk under methamphetamine: exploring ligand-receptor pairs that may attenuate microglia reactivity". **Master in Neurobiology**, Faculty of Medicine, University of Porto, Porto, Portugal.
- 22/02/2018 Thesis opponent of the **PhD student Vanessa Filipa Coelho Santos**, Thesis title "*Effect of methylphenidate on blood-brain barrier function in health and attention deficit hyperactivity disorder*". **Inter-University Doctoral Program in Aging and Chronic Diseases**, Faculty of Medicine, University of Coimbra, Coimbra, Portugal.
- 22/09/2017 Thesis opponent of the MSc student Miguel Maria Restolho Mateus Pinheiro, Thesis title "Glucocorticoid effects in the developing hippocampus: A morphometric assessment".
   Master in Cellular and Molecular Biology, Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal.
- 22/09/2017 Thesis opponent of the **MSc student Tiago João dos Santos Reis**, Thesis title "*The role of cortico-striatal circuits in social hierarchies*". **Master in Cellular and Molecular Biology,** Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal.
- 21/09/2017 Thesis opponent of the MSc student Marta Isabel Ferreira Leite Pereira, Thesis title "Characterization of Grasp2 Knockout mice as a new model of autism spectrum disorders".
   Master in Cellular and Molecular Biology, Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal.
- 20/04/2017 Thesis opponent of the **PhD student Nuno Miguel de Jesus Machado**, Thesis title "*Role of the adenosinergic system in animal models of chronic stress and depression*". **Doctoral Program in Biosciences**, Faculty of Sciences and Technology, University of Coimbra,

Coimbra, Portugal.

- 05/04/2017 Thesis opponent of the **PhD student António Manuel Carvalho da Silva**, Thesis title "Neurobiology of the circadian clock: metabolism control and implications for Alzheimer's disease". **Doctoral Programme in Experimental Biology and Biomedicine (PDBEB)**, Institute for Interdisciplinary Research, University of Coimbra, Coimbra, Portugal.
- 07-09-2014 Thesis opponent of the MSc student Mário Jorge da Silva Carvalho, Thesis title *"Molecular mechanisms of the synaptic and cognitive effects of ghrelin"*. Master in Cellular and Molecular Biology, Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal.

## **10.3 SUPERVISION/CO-SUPERVISION OF POST-GRADUATION STUDENTS**

Ongoing supervisions: 6 PhD (3 as supervisor and 3 as co-supervisor) and 2 MSc students. Completed supervisions: 1 Post-Doc, 12 PhD (6 as supervisor and 6 as co-supervisor) and 16 MSc students.

## **10.3.1 ONGOING SUPERVISION**

### PhD students

- 2023- **Bruna Alexandra Vale Araújo**, Thesis title "Modulation of adult hippocampal neurogenesis by antidepressants may aid the prevention of Parkinson's Disease". **PhD in Biomedicine**, Faculty of Medicine, University of Porto, Porto, Portugal. (co-supervision with Dr. Fábio Teixeira, i3S)
- 2023- **João Luís Fernandes Machado**, Thesis title "*Decoding the neuron-astrocyte dialogue that supports cognitive processing*". **PhD in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. João Oliveira, ICVS)
- 2021- **Diana Rodrigues**, Thesis title "*The rostral ventromedial medulla as a key target of the maladaptive response to chronic inflammatory pain*". **PhD in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. Filipa Ribeiro, ICVS)
- 2021- Inês Moreira Ribeiro, Thesis title "Impact of hippocampal adult-born neurons for circuitry and behavior in depression". PhD in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2020- Andreia de Fátima da Silva Vaz, Thesis title "Modeling and assessing the neurobiological mechanisms of major depressive disorder: perspectives from patient-derived iPSC models".
   PhD Program in Applied Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2017- **Tiago Silveira Rosa**, Thesis title "*Circuitry and connectivity of Hippocampal Neurons in the context of depression and antidepressant treatment*". **PhD in Medicine MD-PhD Program**, School of Medicine, University of Minho, Braga, Portugal.

### MSc students

- 2022- Gonçalo Alexandre Martins Ferreira, Thesis title "Understanding the role of astrogliogenesis on brain physiology and behavior", Master in Biomedical Research (MIB), Faculty of Medicine, University of Coimbra, Coimbra, Portugal (is doing MSc thesis at ICVS, University of Minho under the Almeida Garret program).
- 2022- Iara Pereira da Silva, Thesis title "Tau protein as a regulator of the hippocampal neurogenic niche", Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. Joana Silva, ICVS)

# **10.3.2 COMPLETED SUPERVISION**

## Post-Doc

2017-2019 **Patrícia Carvalho Patrício,** Project Title "*Hippocampal adult-born neurons in depression and after antidepressant treatment: implications for circuitry and behavior*", Life and Health Sciences Research Institute (ICVS), University of Minho, Braga, Portugal

## PhD students

- 2017-2022 Eduardo Manuel Loureiro de Campos, Thesis title "*Role of adult astrogliogenesis in the healthy and depressed brain*". PhD in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2017-2022 **Bárbara Filipa Mendes Pinheiro**, Thesis title "Unveiling the effects of MSCs Secretome in Parkinson's Disease: Impact of Neurogenesis Mediated Repair". **PhD in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. António Salgado, ICVS)
- 2017-2021 Joana Catarina Pereira de Sousa (co-supervision), Thesis title "Modulation of neuronal proteostasis by serotonin: impact on neurodegeneration". PhD Program in Applied Health Sciences, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. Andreia Castro, ICVS)
- 2017-2021 **Rui Augusto Ribeiro Lima** (co-supervision), Thesis title "A Poly-Pharmacological Therapy to Repair the Injured Spinal Cord". **PhD Program in Applied Health Sciences**, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. Nuno Silva, ICVS)
- 2015-2020 Cláudia Filipa Cunha Antunes, Thesis title "*Role of Tet3 enzyme in brain function*". Inter-University Doctoral Programme in Ageing and Chronic Diseases, School of Medicine, University of Minho, Braga, Portugal.
- 2015-2020 Sónia Isabel Nunes Guerra Gomes, Thesis title "*The impact of neuron-astrocyte networks* on cognitive function in depression". PhD in Health Sciences, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. João Oliveira, ICVS)
- 2015-2020 Ana Maria Franco Aveiro Marote (co-supervision), Thesis title "Unveiling the potential of iPSCs-derived mesenchymal stem cells for the development of cell-free therapies for Parkinson's disease". PhD Program in Applied Health Sciences, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. António Salgado, ICVS)
- 2015-2020 Rita Catarina Assunção Ribeiro Silva (co-supervision), Thesis title "Modulation of Mesenchymal Stem Cells Secretome through Peptide Grafted 3D Culture Environments: A Focus on Spinal Cord Injury Repair". PhD Program in Applied Health Sciences, School of Medicine, University of Minho, Braga, Portugal. (co-supervision with Dr. António Salgado, ICVS)
- 2014-2020 Ana Rita Machado dos Santos, Thesis title "Gliogenesis as an important mechanism underlying the pathophysiology of depression". Inter-University Doctoral Programme in Ageing and Chronic Diseases, School of Medicine, University of Minho, Braga, Portugal.
- 2013-2017 **Nuno Dinis Alves**, Thesis title "*Adult neuroplasticity as a pathological trigger to recurrence in depression*". **Inter-University Doctoral Programme in Ageing and Chronic Diseases**, School of Medicine, University of Minho, Braga, Portugal.
- 2012-2016 **Patrícia Carvalho Patrício**, Thesis title "Molecular signaling and cell cycle regulation by depression and antidepressant drugs". **PhD Program in Health Sciences**, School of

Medicine, University of Minho, Braga, Portugal.

2011-2016 António Maria Restolho Mateus Pinheiro, Thesis title "Epigenetic orchestration of the adult brain neuroplasticity in health and disease". PhD Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.

### MSc students

- 2019-2020 Joana Catarina Martins Macedo, Thesis title "Role of astrogliogenesis for anxiety and cognitive performance". Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2019-2020 Susana Cristina Soares Lima, Thesis title "Implementation of a chronic social stress rat model and the effects of allopregnanolone to reverse depressive and anxiety-like signs in nulliparous and primiparous females". Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2018-2019 **Bruna Alexandra Vale Araújo**, Thesis title "*Hilar hippocampal cytogenesis: a new source of neural plasticity in the adult mammalian brain?*". **Master Program in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 2018 **Fábio Lopes Ferreira**, Thesis title "*Role of the TET3 enzyme in neuronal morphology and synaptic structure of the hippocampus*". **Integrated Master's degree in Medicine**, School of Medicine, University of Minho, Braga, Portugal.
- 2015-2017 Cátia Alves, Thesis title "Validation of an automated equipment for depression induction in a rodent model". Master Program in Neurosciences, Faculty of Medicine, University of Lisbon, Lisbon, Portugal.
- 2016 António Mateus Pinheiro, Thesis title "Suppression of adult hippocampal cytogenesis in the female brain induces hypercorticosteronemia and anxiety-like behavior". Integrated Master's degree in Medicine, School of Medicine, University of Minho, Braga, Portugal.
- 2015-2016 Eduardo Manuel Loureiro de Campos, Thesis title "*The role of AP2y in the modulation of adult neurogenesis in depression*". Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2014 Ana Cláudia Santos Camelo Pimenta, Thesis title "Epigenetic modulation of adult hippocampal cytogenesis: analyzing healthy vs stressed brain". Integrated Master's degree in Medicine, School of Medicine, University of Minho, Braga, Portugal.
- Joana Catarina Lima Marinho, Thesis title "Epigenetic mechanisms of depression: role of tet enzymes and DNA methylation/hydroxymethylation on healthy and depressed brains".
   Integrated Master's degree in Medicine, School of Medicine, University of Minho, Braga, Portugal.
- 2013-2014 Joana Sofia da Silva Correia, Thesis title "*The impact of astrocytic neuroprotective function in depression*". Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2012-2013 **Rita Trindade**, Thesis title "*Identifying the mechanistic role of TAU on adult neurogenesis modifications induced by chronic stress and environmental enrichment*". **Master Program in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 2012-2013 Ana Rita Machado dos Santos, Thesis title "Impact of astrocytes and gliogenesis on the pathophysiology of Depression". Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 2010-2011 António Maria Restolho Mateus Pinheiro, Thesis title "Impacts of neurogenic modulatory events on the neurobiology of depression". Master Program in Health Sciences, School of

Medicine, University of Minho, Braga, Portugal.

- 2009-2010 Fábio Gabriel Rodrigues Teixeira, Thesis title "In Vivo Studies on the Effects of Umbilical Cord Stem Cells in the Central Nervous System". Master in Oncology, University of Minho/University of Porto, Porto, Portugal.
- 2007-2008 Marion Betizeau, Thesis title "Analysis of genes found to be differentially expressed in a microarray screen comparing the neural stem cells in the cortex and ganglionic eminences of the mouse developing forebrain". Master Program of the Helmholtz Zentrum München, German Research Center for Environment and Health (GmbH), Munich, Germany.
- 2006-2007 **Daniela Drechsel**, Thesis title "*Fate determinants for neurogenesis in the mouse developing cortex*". **Master Program of the Helmholtz Zentrum München**, German Research Center for Environment and Health (GmbH), Munich, Germany.

## **10.4 ACTIVITIES OF ADVANCED TRAINING**

### **10.4.1 1st CYCLE TEACHING ACTIVITIES**

Total teaching hours: **929 hours** Average teaching hours per curricular year: **71.5 hours** 

2021-2022 **Curricular Unit "Fundamentals of Medicine**", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>35.5h</u>)

Curricular Unit "Complementary pathways in medicine", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>42h</u>)

**Curricular Unit "Biologic effects of Radiation"**, *Degree of Medical Physics*, Department of Physics, University of Minho, Braga, Portugal. (<u>5h</u>)

2020-2021 **Curricular Unit "Fundamentals of Medicine**", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (22.15h)

**Curricular Unit "Foundations of Medicine**", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>6.15h</u>)

**Curricular Unit "Biologic effects of Radiation"**, *Degree of Medical Physics*, Department of Physics, University of Minho, Braga, Portugal. (<u>5h</u>)

2019-2020 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>38.5h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (5h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>8h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)

**Curricular Unit "Introduction to the Course of Medicine"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

Curricular Unit "From the Clinic to Molecular Biology I - DCBM1", Degree of

*Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

**Curricular Unit "Biologic effects of Radiation"**, *Degree of Medical Physics*, Department of Physics, University of Minho, Braga, Portugal. (<u>7h</u>)

2018-2019 Curricular Unit "Molecules and Cells", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>26.5h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>3h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (2h)

Curricular Unit "Introduction to the Course of Medicine", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>3h</u>)

**Curricular Unit "From the Clinic to Molecular Biology I – DCBM1"**, Degree of *Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

**Curricular Unit "Biologic effects of Radiation"**, *Degree of Medical Physics*, Department of Physics, University of Minho, Braga, Portugal. (<u>5h</u>)

2017-2018 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>25h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>3h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)

**Curricular Unit "From the Clinic to Molecular Biology I – DCBM1"**, Degree of *Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

**Curricular Unit "Biologic effects of Radiation"**, *Degree of Medical Physics*, Department of Physics, University of Minho, Braga, Portugal. (<u>8h</u>)

2016-2017 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>58.25h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (9h)

**Curricular Unit "From the Clinic to Molecular Biology I - DCBM1"**, Degree of *Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

2015-2016 Curricular Unit "Molecules and Cells", *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (62.25h)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>3h</u>)

2014-2015 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>71.5h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (6.25h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (7h)

**Curricular Unit "Introduction to the Course of Medicine"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>3.5h</u>)

2013-2014 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (54.75h)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (6.5h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>15.5h</u>)

2012-2013 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>70h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (2h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (2h)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (2h)

**Curricular Unit "Fundamentals of Medicine"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>1.5h</u>)

2011-2012 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>32h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (9h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (21h)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

**Curricular Unit "Introduction to the Course of Medicine"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>26h</u>)

2010-2011 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (52h)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (9h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (21h)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

2009-2010 **Curricular Unit "Molecules and Cells"**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>56h</u>)

Curricular Unit "Functional and Organic Systems (SOFs) III", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (9h)

Curricular Unit "Functional and Organic Systems (SOFs) II", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (21h)

Curricular Unit "Functional and Organic Systems (SOFs) I", Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)

# 10.4.2 2<sup>nd</sup> AND 3<sup>rd</sup> CYCLE TEACHING ACTIVITIES/ADVANCED TRAINING

Total teaching hours: 230 hours

Average teaching hours per year: **19.2 hours** 

- 08/11/2022 Lecturer in the advanced postgraduate course "14<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 07-25/03/2022 Lecturer in the advanced postgraduate course "Being a bio-entrepreneur" (8<sup>th</sup> edition), PhD Program in Applied Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>15h</u>)
- 21/09/2021 Lecturer in the advanced postgraduate course "14<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 08/04/2021 Lecturer in the advanced postgraduate course "Neuronal Circuits and Behavior", Biomedicine and Experimental Biology PhD Programme and MIT-Portugal PhD Program in Bio-Engineering, Centre for Neuroscience and Cell Biology (CNC), University of Coimbra, Coimbra, Portugal. (<u>1h</u>)
- 02-19/03/2021 Lecturer in the advanced postgraduate course "Being a bio-entrepreneur" (7<sup>th</sup> edition), PhD Program in Applied Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>15h</u>)
- 22/09/2020 Lecturer in the advanced postgraduate course "13<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 10-28/02/2020 Lecturer in the advanced postgraduate course "Being a bio-entrepreneur" (6<sup>th</sup> edition),
   PhD Program in Applied Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>15h</u>)
- 04-22/04/2019 Lecturer in the advanced postgraduate course "Being a bio-entrepreneur" (5<sup>th</sup> edition), PhD Program in Applied Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>15h</u>)

- 25/09/2018 Lecturer in the advanced postgraduate course "12<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 02-20/04/2018 Lecturer in the advanced postgraduate course "Being a bio-entrepreneur" (4<sup>th</sup> edition), PhD Program in Applied Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>15h</u>)
- 09-19/02/2018 Lecturer in the advanced postgraduate course "Hands-on the Rodent Brain: from intracellular trafficking to brain connectome", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>11h</u>)
- 25/09/2017 Lecturer in the advanced postgraduate course "11<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 02-15/05/2017 Lecturer in the advanced postgraduate course "Molecular and cellular analysis: essential toolkit for in vitro cell cultures, gene expression and microscopy", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>8h</u>)
- 12-26/04/2017 Lecturer in the advanced postgraduate course "Advanced Hands-on the Rodent Brain: from intracellular trafficking to brain connectome", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>11h</u>)
- 20/02/2017 Lecturer in the advanced postgraduate course "Neuronal Circuits and Behavior", Biomedicine and Experimental Biology PhD Programme and MIT-Portugal PhD Program in Bio-Engineering, Centre for Neuroscience and Cell Biology (CNC), University of Coimbra, Coimbra, Portugal. (2h)
- 26/09/2016 Lecturer in the advanced postgraduate course "10<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 23/07/2016 Lecturer in the advanced course "*Epigenomics of Metabolic Disease*", Medical Research Center (CIM), Faculty of Medicine, University of Porto, Porto, Portugal. (<u>1h</u>)
- 18-29/04/2016 Lecturer in the advanced postgraduate course "Epigenetics from mechanisms to disease", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (2h)
- 26/04/2016 Lecturer in the advanced postgraduate course "Neuronal Circuits and Behavior", Biomedicine and Experimental Biology PhD Programme and MIT-Portugal PhD Program in Bio-Engineering, Centre for Neuroscience and Cell Biology (CNC), University of Coimbra, Coimbra, Portugal. (2h)
- 10-14/03/2016 Lecturer in the advanced postgraduate course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (5<sup>th</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>14h</u>)
- 21/09/2015 Lecturer in the advanced postgraduate course "9<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 19/05/2015 Lecturer in the advanced postgraduate course "Neuronal Circuits and Behavior", Biomedicine and Experimental Biology PhD Programme and MIT-Portugal PhD Program in Bio-Engineering, Centre for Neuroscience and Cell Biology (CNC), University of Coimbra,

Coimbra, Portugal. (2h)

- 02-13/03/2015 Lecturer in the advanced postgraduate course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (4<sup>th</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (22.5h)
- 20/09/2014 Lecturer in the advanced postgraduate course "8<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)
- 10-14/03/2014 Lecturer in the advanced postgraduate course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (3<sup>rd</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>16h</u>)
- 28/01/2014 Lecturer in the advanced postgraduate course "Neuronal Circuits and Behavior", Biomedicine and Experimental Biology PhD Programme and MIT-Portugal PhD Program in Bio-Engineering, Centre for Neuroscience and Cell Biology (CNC), University of Coimbra, Coimbra, Portugal. (2h)
- 19/09/2013 Lecturer in the advanced postgraduate course "7<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>2h</u>)
- 11-15/03/2013 Lecturer in the advanced postgraduate course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (2<sup>nd</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>16h</u>)
- 10/02/2013 Lecturer in the advanced postgraduate course "An integrative approach to cell analyses" (2<sup>nd</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>6h</u>)
- 25/09/2012 Lecturer in the advanced postgraduate course "6<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>2h</u>)
- 12-16/02/2012 Lecturer in the advanced postgraduate course "Stem Cells get practical: Approaches on stem cells isolation, characterization and differentiation" (1<sup>st</sup> edition), Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (22.5h)
- 20/09/2011 Lecturer in the advanced postgraduate course "5<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>2h</u>)
- 20/09/2010 Lecturer in the advanced postgraduate course "4<sup>th</sup> Fundamentals in Neuroscience", Master and PhD Programs in Health Sciences, Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho, Braga, Portugal. (<u>2h</u>)

# **10.4.3 MONITORING SCHOOL ACTIVITIES**

## 1st CYCLE

## Jury member activities

07/011/2022 Jury Member of the projects Transition to Professional Practice (TPP), Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>1h</u>)

- 28/06/2018 **Jury Member of the Congress of Option Projects III (PO3)**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (2h)
- 07/06/2018 **Jury Member of the Congress of Option Projects I (PO1)**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>4h</u>)
- 29/06/2017 **Jury Member of the Congress of Option Projects III (PO3)**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (<u>8h</u>)
- 08-09/06/2017 Jury Member of the Congress of Option Projects I (PO1), Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>12h</u>)
- 08-09/06/2016 Jury Member of the Congress of Option Projects I (PO1), Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>8h</u>)
- 11/07/2014 **Jury Member of the Congress of Option Projects I (PO1)**, *Degree of Medicine*, School of Medicine, University of Minho, Braga, Portugal. (2h)
- 08-09/07/2010 Jury Member of the Congress of Option Projects I (PO1), Degree of Medicine, School of Medicine, University of Minho, Braga, Portugal. (<u>8h</u>)

### **Undergraduate supervision**

Total supervisions: 8 PO3, 3 PO1, 8 internships, 1 MINOR, 1 Research Fellow and 1 FLAD Mobility Program student.

- 09/2022-01/2023 Ana Rita da Silva Reis Dourado, Project title "Testing of novel virus tools to ablate astrogliogenesis in the brain of rodents". Internship of the Master degree in Biotechnology, University of Minho, Braga, Portugal.
- 10-11/2022 Francisco de Assis Fernandes Dias, Project title "Exploring the role of the transcription factor AP2gamma in the control of post-natal glutamatergic neurogenesis". MIMED MINOR Laboratory Rotations of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 01-12/2022 **Rita Caridade Silva,** Project title "Focused Ultrasound combined with Stem Cells Secretome and Pharmacotherapies: establishing a Multimodal path for Parkinson's Disease repair". **Research Fellow**, ICVS, School of Medicine, University of Minho, Braga, Portugal.
- 05-06/2020 Mariana Miranda Leite, Joana Pereira Soares Novais dos Santos and Ana Ferreira Pereira, Project title "Pulmonary Embolism: incidence, predictive factors and prognosis analysis in Lung Cancer patients. A systematic review". Option Projects III (PO3) of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05-06/2019 Filipa Guedes, Joana Costa and Cláudio Coelho, Project title "Which are the metabolic pathways altered in the brain of schizophrenia patients with and without antipsychotic treatment? A systematic review". Option Projects III (PO3) of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05-06/2019 Ana Catarina da Maia Ferreira and Ângela Raquel Files Pinto, Project title "Neural dysfunction in postpartum depression (PPD) using magnetic resonance imaging (MRI) a systematic review". Option Projects III (PO3) of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05-07/2019 **Carlota Abreu**, Project title "Transplantation of glial restricted progenitors in the adult hippocampus of rats as a novel therapeutical strategy to modulate neuronal circuits". **Internship of the Biochemistry University degree**, University of Minho, Braga, Portugal.

- 05-07/2018 Alexandra Filipa Basílio Silva, Project title "Analyses of cellular proliferation and differentiation in an in vitro model to study the effects of stress hormones and antidepressants in the adult hippocampal neurogenic niche". Internship of the Biochemistry University degree, University of Minho, Braga, Portugal.
- 05-07/2017 Shad Hunter Sommerville, Project title "Functional Correlates of Adult Hippocampal Cytogenesis: A Matter of Sex and Time?". Biomedical and Clinical Sciences Short Project within the Program for International Mobility: Research Projects of the School of Medicine (FLAD), University of Minho, Braga, Portugal.
- 05-07/2017 Joana Catarina Martins Macedo, Project title "Relevance of adult hippocampal cytogenesis for the behavior of rodents and the role of female hormones". Internship of the Biochemistry University degree, University of Minho, Braga, Portugal.
- 05-07/2017 **Bruna Alexandra Vale Araújo**, Project title "*Glial plasticity as a key mechanism in a model of recurrent depression*". **Internship of the Biochemistry University degree**, University of Minho, Braga, Portugal.
- 05-07/2017 Ana Beatriz Pereira de Sousa, Project title "Impact of the transcription factor AP2y in the modulation of post-natal glutamatergic neurogenesis". Internship of the Biochemistry University degree, University of Minho, Braga, Portugal.
- 05-07/2016 Inês Marques Pinheiro, Project title "Impact of reduced neurogenesis in depressive-like behavior". Internship of the Biochemistry University degree, University of Minho, Braga, Portugal.
- 05-06/2014 Joana Maia, Project title "Adult neuroplasticity as a pathological trigger to recurrence in depression". Option Projects I (PO1) of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05-06/2014 **Rita Neves**, Project title "Adult neuroplasticity as a pathological trigger to recurrence in depression". **Option Projects I (PO1) of the Medicine University degree**, School of Medicine, University of Minho, Braga, Portugal.
- 05-06/2013 Catarina da Luz Neves, Project title "Adult neuroplasticity as a pathological trigger to recurrence in depression". Option Projects I (PO1) of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05-07/2010 Ana Raquel Marques de Sousa, Project title "Effects of the secretome of the human umbilical cord mesenchymal Stem Cells in the proliferation and differentiation of neuronal stem cells". Internship of the Biochemistry University degree, University of Minho, Braga, Portugal.

## **Evaluation of reports from the curricular unit Option Projects**

- 03/05/2022 **Evaluation of 10 reports** from students of **Reflective Practice (PA2)** of the 2<sup>nd</sup> semester of the MinhoMD Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 03/05/2022 **Evaluation of 12 reports** from students of **Reflective Practice (PA/PA1)** of the 2<sup>nd</sup> semester of the MinhoMD Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 17/01/2022 **Evaluation of 10 reports** from students of **Reflective Practice (PA2)** of the 1<sup>st</sup> semester of the MinhoMD Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 17/01/2022 **Evaluation of 12 reports** from students of **Reflective Practice (PA/PA1)** of the 1<sup>st</sup> semester of the MinhoMD Medicine University degree, School of Medicine, University of Minho,

Braga, Portugal.

- 08/07/2019 **Evaluation of 6 reports** from students of **Options Projects III (PO3)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 11/06/2019 **Evaluation of 17 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 09/07/2018 **Evaluation of 5 reports** from students of **Options Projects III (PO3)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 18/06/2018 **Evaluation of 10 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 16/06/2017 **Evaluation of 29 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 14/06/2016 **Evaluation of 30 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 22/06/2015 **Evaluation of 15 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 24/06/2014 **Evaluation of 22 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 11/07/2013 **Evaluation of 9 reports** from students of **Options Projects III (PO3)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 25/06/2013 **Evaluation of 26 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 05/07/2012 **Evaluation of 8 reports** from students of **Options Projects III (PO3)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 25/06/2012 **Evaluation of 24 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 03/02/2010 **Evaluation of 4 reports** from students of **Options Projects II (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.
- 14/07/2010 **Evaluation of 20 reports** from students of **Options Projects I (PO1)** of the Medicine University degree, School of Medicine, University of Minho, Braga, Portugal.

# 2<sup>nd</sup> and 3<sup>rd</sup> CYCLE

### Jury member activities

- 07/12/2022 Thesis opponent of the **MSc student Catarina Vinhas Mósca Deseyve**, Thesis title *"Nucleus Accumbens neuronal activity in associative learning"*. **Master in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 22/10/2021 Thesis opponent of the **MSc student Rita Caridade Silva**, Thesis title "Combining Stem cells Secretome and N-acetylcysteine to Parkinson's Disease modeling and repair". **Master in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 08/01/2021 Thesis opponent of the MSc student Cláudio Miguel Rodrigues Coelho, Thesis title "Cerebral organoids as a tool for studying the modulation of opioid receptors, as well as possible molecular and cellular changes in the brain". Integrated Master's degree in Medicine (Option Project 6 PO6), School of Medicine, University of Minho, Braga, Portugal.
- 15/07/2021 Thesis opponent of the **PhD student Ana Rita Gonçalves Gaspar**, Thesis title "*Microglia morphology and susceptibility to depression impact of sex differences*" **Inter-University**

**Doctoral Programme in Ageing and Chronic Diseases**, Faculty of Medicine, University of Coimbra, Coimbra, Portugal.

- 11/11/2019 Thesis opponent of the **PhD student João Carlos Lima Gonçalves**, Thesis title "Dissecting the mechanisms of dynein recruitment to the nuclear envelope during neocortical development". **PhD in Medicine**, School of Medicine, University of Minho, Braga, Portugal.
- 02/04/2019 Thesis opponent of the **PhD student João Luís Vaz Lima da Silva**, Thesis title "Unraveling the synaptic role of Rab35: implications for Alzheimer's disease pathology". **PhD in Medicine**, School of Medicine, University of Minho, Braga, Portugal.
- 01/02/2018 Thesis opponent of the **PhD student Vanessa Alexandra Morais Sardinha**, Thesis title *"The influence of gliotransmission on higher cognitive functions"*. **PhD Program in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 04/01/2018 Thesis opponent of the MSc student André Miguel Lopes Miranda, Thesis title "*The role of phosphatidylinositol-3,5-bisphosphate in neuronal endolysosomal function: implications for Alzheimer's disease*". Integrated Master's degree in Medicine (Option Project 6 PO6), School of Medicine, University of Minho, Braga, Portugal.
- 04/01/2018 Thesis opponent of the **MSc student Egídio André Miranda Freitas**, Thesis title "Impact of Human Mesenchymal Stem Cells Secretome combined with Pharmacotherapies on Brain Structure and Animal Behavior of Rat Model of Parkinson's Disease". **Integrated Master's degree in Medicine (Option Project 6 – PO6)**, School of Medicine, University of Minho, Braga, Portugal.
- 02/10/2017 Thesis opponent of the **PhD student Célia Márcia Azevedo Soares**, Thesis title "*Fate of the earliest retinal ganglion cells during development of the visual system*". **PhD in Medicine**, School of Medicine, University of Minho, Braga, Portugal.
- 29/03/2017 Thesis opponent of the PhD student Mónica Susana Dias Morais, Thesis title "New insights on the interplay between psychopharmacology and neuroplasticity in psychiatric disorders". PhD Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 08/01/2016 Thesis opponent of the **MSc student Ângela Soraia de Oliveira Mendes**, Thesis title "Pharmacological evaluation of the effect of a reversible inhibitor of monoamine oxidase A and its enantiomers in the control of pain and comorbid emotional impairments in experimental neuropathy". **Integrated Master's degree in Medicine (Option Project 6** – **PO6)**, School of Medicine, University of Minho, Braga, Portugal.
- 09/01/2015 Thesis opponent of the MSc student Ana Patrícia Dias Fernandes Rodrigues, Thesis title "Stimulation of D2 neurons in the nucleus accumbens increases motivation in a model of in utero exposure to glucocorticoids". Integrated Master's degree in Medicine (Option Project 6 – PO6), School of Medicine, University of Minho, Braga, Portugal.
- 09/01/2015 Thesis opponent of the **MSc student João Miguel Carvalho da Costa**, Thesis title "*Cell passages influence the secretome of adipose tissue stem cells*?". **Integrated Master's degree in Medicine (Option Project 6 PO6)**, School of Medicine, University of Minho, Braga, Portugal.
- 30/01/2015 Thesis opponent of the **PhD student Fábio Gabriel Rodrigues Teixeira**, Thesis title "Modulation of the Secretome of Mesenchymal Stem Cells for Central Nervous System Regenerative Medicine Applications". **PhD Program in Health Sciences**, School of Medicine, University of Minho, Braga, Portugal.
- 07/01/2015 Thesis opponent of the MSc student Luís André Santos e Araújo, Thesis title "Effects of bone marrow-derived mesenchymal stem cells secretome on degenerative changes progression associated to massive rotator cuff tears". Integrated Master's degree in Medicine (Option Project 6 – PO6), School of Medicine, University of Minho, Braga, Portugal.

### **Graduate supervision**

Total supervisions: 6 PhD Laboratory rotations and 5 MSc Laboratory rotations

- 10-11/2022 Eva Cristiana Oliveira Ferreira, Project title "Impact of hippocampal adult-born neurons for brain circuitry and behavior in depression". Laboratory rotation of the MD/PhD Program, School of Medicine, University of Minho, Braga, Portugal.
- 03-06/2020 Andreia de Fátima da Silva Vaz, Project title "Brain organoids: models to understand the human brain biology, physiology and invaluable tools for drug development". Laboratory rotation of the PhD Program in Applied Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 10-12/2020 Eduardo Manuel Loureiro de Campos, Project title "Exploring the role of the transcription factor AP2gamma in the control of post-natal glutamatergic neurogenesis". Laboratory rotation of the PhD Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 09-12/2018 Joana Catarina Martins Macedo, Project title "Transplantation of glial-restricted precursor (GRP) cells as a new therapeutic approach to improve anxiety and cognition". Laboratory rotation of the Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 09-12/2018 Rogério Cristiano Rocha de Castro, Project title "Postnatal hippocampal cytogenesis role in healthy and depressive-like contexts". Laboratory rotation of the Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 01-03/2017 Mariana Patrícia Ribeiro Gomes, Project title "Effects of cytogenesis ablation in the modulation of glucocorticoids secretion pattern". Laboratory rotation of the Master Program in Biomedical Research, School of Medicine, University of Coimbra, Coimbra, Portugal.
- 01-03/2016 Ana Alexandra de Portugal dos Santos Pereira, Project title "Regional-specific impact of stress in surviving adult-born astrocytes in the hippocampal dentate gyrus". Laboratory rotation of the Inter-University Doctoral Programme in Ageing and Chronic Disease, School of Medicine, University of Minho, Braga, Portugal.
- 06-07/2014 Sara Rodrigues, Project title "*The role of cytogenesis in the pathomechanisms of depressivelike behavior*". Laboratory rotation of the Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 01-03/2014 Ana Sofia Lopes, Project title "*The role of Cdk5/p35 complex in the pathomechanisms of depressive-like behavior*". Laboratory rotation of the PhD Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 01-03/2011 **Patricia Carvalho Patricio**, Project title "*The role of AP2y in the modulation of adult neurogenesis in depression*". Laboratory rotation of the PhD Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.
- 06-07/2010 António Maria Restolho Mateus Pinheiro, Project title "*The cognitive role of hippocampal neurogenesis in depression*". Laboratory rotation of the Master Program in Health Sciences, School of Medicine, University of Minho, Braga, Portugal.

# **11. CAREER BREAKS**

- Maternity leave: from 08/03/2011 to 05/07/2011
- Medical leave due to risky pregnancy: from 03/02/2020 to 24/06/2020
- Maternity leave: from 25/06/2020 to 21/11/2020

Pinto, Luísa A.M.

I declare, on my honour, that the information contained in this Curriculum Vitae is true.

Braga, 6<sup>th</sup> of January 2023

Signature: Buisa Alexandra Kineles Pinto