

ACADEMIC POSITIONS

- 2020 - present **Principal Investigator** Institute of Molecular Biotechnology of the Austrian Academy of Sciences (IMBA), Vienna, Austria. Maternity leave: November 2021 - May 2022
- 2012 - 2019 **Postdoctoral scientist** Ludwig Maximilian University (LMU) of Munich and Helmholtz Center Munich, Germany. Lab: Magdalena Götz.

EDUCATION

- 2006 - 2012 **PhD in Neuroscience** University of Coimbra, Portugal and Laval University, Québec, Canada. Labs: João Malva / Armen Saghatelian; *summa cum laude*.
- 2001 - 2006 **BSc / MSc in Biology** University of Coimbra, Portugal.

PUBLICATIONS

10 most relevant publications:

1. Pinto-Benito D, Paradelo-Leal C, Cano-Adamuz N, Grassi D, Azcoitia I, **Grade S[§]**, Arevalo MA[§]. Improved myelin clearance and cognitive outcomes after TBI in female mice are mediated by ovarian steroids and sex chromosomes. *bioRxiv* 2026.01.28.702273. [§]**co-senior authors**.
2. Thomas J, Conzelmann KK, Hauck SM[†], **Grade S^{§,†}**, Götz M^{§,†}. Excessive local host-graft connectivity in ageing and amyloid-loaded brain. *Science Advances* 2022, 10;8(23):eabg9287. [§]**co-senior authors**, [†]**co-corresponding authors**.
3. **Grade S[†]**, Thomas J, Conzelmann KK, Hauck SM[†], Götz M[†]. Injury environment critically influences the brain-wide input connectome of transplanted neurons. *Science Advances* 2022, 10;8(23):eabg9445. [†]**co-corresponding authors**.
4. Petrik D, Myoga MH, **Grade S**, Gerkau NJ, Pusch M, Rose CR, Grothe B, Götz M. Epithelial sodium channel regulates adult neural stem cell proliferation in a flow-dependent manner. *Cell Stem Cell* 2018, 22:865-78.e8. Highlighted in Cell Stem Cell.
5. **Grade S[†]**, Götz M[†]. Neuronal replacement therapy: previous achievements and challenges ahead. *npj Regen Med* 2017, 2:29. [†]**co-corresponding authors**. Nature Partner Journal.
6. Falkner S[†], **Grade S[†]**, Dimou L, Conzelmann KK, Bonhoeffer T, Götz M[§], Hübener M[§]. Transplanted embryonic neurons integrate into adult neocortical circuits. *Nature* 2016, 539:248-53. [†]**co-first authors**, [§]**co-senior authors**. (cover of November 10th Issue; featured in Cell Stem Cell, Nature Neuroscience and F1000 Neuroscience).
7. Schneider S, Gruart A, **Grade S**, Zhang Y, Kröger S, Kirchhoff F, Eichele G, Delgado García JM, Dimou L. Decrease in newly generated oligodendrocytes leads to motor dysfunctions and changed myelin structures that can be rescued by transplanted cells. *Glia* 2016, 64:2201-18.
8. **Grade S**, Weng YC, Snapyan M, Kriz J, Malva JO, Saghatelian A. Brain-derived neurotrophic factor promotes vasculature-associated migration of neuronal precursors toward the ischemic striatum. *PLoS One* 2013, 8:e55039.
9. **Grade S**, Bernardino L, Malva JO. Oligodendrogenesis from neural stem cells: perspectives for remyelinating strategies. *Int J Dev Neurosci* 2013, 31:692-700.
10. **Grade S**, Agasse F, Bernardino L, Silva CG, Cortes L, Malva JO. Functional identification of neural stem cell-derived oligodendrocytes by means of calcium transients elicited by thrombin. *Rejuvenation Res* 2010, 13:27-37.

Other publications

1. Ottosson D*, **Grade S***, Heuer A*. Editorial: Regeneration and brain repair. **Front Cell Neurosci** 2021, 15:687992. *co-authors and co-corresponding authors.
2. Rosa AI, **Grade S**, Santos SD, Bernardino L, Chen TC, Relvas J, Hofman FM, Agasse F. Heterocellular Contacts with Mouse Brain Endothelial Cells Via Laminin and $\alpha 6 \beta 1$ Integrin Sustain Subventricular Zone (SVZ) Stem/Progenitor Cells Properties. **Front Cell Neurosci** 2016, 15:10:284.
3. Xapelli S[‡], Agasse F[‡], **Grade S**, Bernardino L, Ribeiro FF, Schitine CS, Heimann AS, Ferro ES, Sebastião AM, De Melo Reis RA, Malva JO. Modulation of subventricular zone oligodendrogenesis: a role for hemopressin? **Front Cell Neurosci** 2014, 8:59. *co-first authors.
4. Bernardino L, Eiriz MF, Santos T, Xapelli S, **Grade S**, Rosa AI, Cortes L, Ferreira R, Bragança J, Agasse F, Ferreira L, Malva JO. Histamine stimulates neurogenesis in the rodent subventricular zone. **Stem Cells** 2012, 30:773-84.
5. De Melo Reis RA, Schitine CS, Köfalvi A, **Grade S**, Cortes L, Gardino PF, Malva JO, de Mello FG. Functional identification of cell phenotypes differentiating from mice retinal neurospheres using single cell calcium imaging. **Cell Mol Neurobiol** 2011, 31:835-46.
6. Eiriz MF, **Grade S**, Rosa A, Xapelli S, Bernardino L, Agasse F, Malva JO. Functional evaluation of neural stem cell differentiation by single cell calcium imaging. **Curr Stem Cell Res Ther** 2011, 6:288-96.
7. Bernardino L, Agasse F, Silva B, Ferreira R, **Grade S**, Malva JO. Tumor necrosis factor- α modulates survival, proliferation, and neuronal differentiation in neonatal subventricular zone cell cultures. **Stem Cells** 2008, 26:2361-71.
8. Agasse F, Bernardino L, Kristiansen H, Christiansen SH, Ferreira R, Silva B, **Grade S**, Woldbye DP, Malva JO. Neuropeptide Y promotes neurogenesis in murine subventricular zone. **Stem Cells** 2008, 26:1636-45.
9. Agasse F, Bernardino L, Silva B, Ferreira R, **Grade S**, Malva JO. Response to histamine allows the functional identification of neuronal progenitors, neurons, astrocytes, and immature cells in subventricular zone cell cultures. **Rejuvenation Res** 2008, 11:187-200.
10. Xapelli S, Bernardino L, Ferreira R, **Grade S**, Silva AP, Salgado JR, Cavadas C, Grouzmann E, Poulsen FR, Jakobsen B, Oliveira CR, Zimmer J, Malva JO. Interaction between neuropeptide Y (NPY) and brain-derived neurotrophic factor in NPY-mediated neuroprotection against excitotoxicity: a role for microglia. **Eur J Neurosci** 2008, 27:2089-102.
11. Simões PF, Silva AP, Pereira FC, Marques E, **Grade S**, Milhazes N, Borges F, Ribeiro CF, Macedo TR. Methamphetamine induces alterations on hippocampal NMDA and AMPA receptor subunit levels and impairs spatial working memory. **Neuroscience** 2007, 150:433-41.

Book chapters

1. **Grade S**, Agasse F, Bernardino L, Malva JO. Functional identification of neural stem cell-derived oligodendrocytes. *Methods Mol Biol* 2012, In: Somatic Stem Cells: Methods and Protocols (Singh, SR, ed), vol. 879: 165-178. Humana Press; Springer Science+Business Media.
2. **Grade S**, Rosa AI, Silva AC, Bernardino L, Malva JO, Rego AC. 2017. In: Neurociências, Neurogênese e Terapia Celular do Cérebro. Lidel - Edições Técnicas.

Patents

Grade S, Agasse F, Bernardino L, Malva JO. Method for the functional identification of SVZ-derived oligodendrocytes based on selective response to thrombin and utilization thereof. WIPO, WO 2010/046876.

FUNDING

Grants and fellowships

- 2024-2028 (5y) FWF CoE 10.55776/COE16, 483.325,20 €, **PI in Research Consortium.**
- 2024-2028 (4y) FWF SFB F78, 407.555,44 €, **PI in Research Consortium.**
- 2019-2026 (3y) La Caixa Foundation HR21-00622. **PI in Research Consortium.**
- 2019-2026 (6y) FCT CEECIND/03146/2017, 344.060 €, **PI (individual grant)** (declined by the applicant as it was not portable to the IMBA).
- 2018-2021 (4y) DFG SFB 870, 118803580, 377.200 €, team member.
- 05-08/2011 (4mo) FQRNT, Merit Scholarship, 14964, 12.000\$CAD, **individual fellowship.**
- 2006-2010 (4y) FCT PhD fellowship, SFRH/BD/32953/2006, 84.490 €, **individual fellowship.**
- 2010-2013 (3y) FCT PTDC/SAU-NEU/104415/2008, 91.000 €, team member.
- 2007-2010 (3y) FCT PTDC/SAU-NEU/68465/2006, 148.828 €, team member.

Awards

2019 SyNergy award (Munich cluster for Systems Neurology) - Cortical Connections, Paris, France.
2018 SyNergy award - Tissue Clearing and 3D Imaging workshop, at Ertürk lab, Munich, Germany.
2018 SyNergy award - FELASA functions (a), (b), (d), at i3S, Porto, Portugal.
2017 C.A.R.E award - International Neural Transplantation and Repair (INTR), Cairns, Australia.
2017 Portuguese Society for Neuroscience (SPN) award - SPN meeting, Braga, Portugal.
2016 Synergy award - Neuroscience 2016 meeting, San Diego, USA.
2016 Champalimaud Neuroscience Programme (CNP) award - CNP2016 meeting, Lisbon, Portugal.

LEADERSHIP

Supervision: leading a team (2020-present) at IMBA, currently of 4 PhD students, 2 Postdocs, 1 Research Assistant, 1 Master student; supervised 2 PhD students (2016-2021) at LMU Munich.

Teaching in PhD programs, summer schools or symposia:

Since 2020 Vienna Biocenter (VBC) PhD courses, Vienna, Austria.
2020 Panelist in "PI/Postdocs session on job hunting", Vienna, Austria.
2018 Workshop "Advanced methods in NSCs research" at International Symposium in Neurosciences, Fortaleza, Brazil.
2018 Seminar at S&B International Education Program, RIKEN BSI, Wako, Japan.
2018 Seminar at CNC PhD Programme PDBEB Symposium, Coimbra, Portugal.
2010 Practical course at Frontiers in Neurophotonics Summer School, Laval University, Canada.

Conference / Symposia organization:

2025 Development and Stem Cells regional meeting (DevStem), Vienna, Austria
2024 Development and Stem Cells regional meeting (DevStem), Klosterneuburg, Austria
2024 Symposium on Stem Cell Research (SY-Stem), Vienna, Austria.
2023 Symposium "From transplantation to reprogramming: avenues to brain repair", FRM 2023, Algarve, Portugal.
2022 Symposium on Stem Cell Research (SY-Stem), Vienna, Austria.

INVITED TALKS (conferences and institutional seminars; total 24)

- 2026 International Winter Neuroscience Conference, Sölden, Austria (selected symposium)
- 2025 Society for Neuroscience (SfN), San Diego, CA, USA (selected symposium)
- 2025 Brain Research Institute, University of Zurich (Host: Csaba Földy)
- 2025 3rd International Symposium GRK2162, Erlangen, Germany
- 2025 Meeting of the Hungarian Neuroscience Society, Debrecen, Hungary
- 2024 FENS satellite symposium "Cajal's challenge accepted (2nd edition)"
- 2023 Neuron-Glia Interface meeting, Freiburg, Germany
- 2023 Japanese Neuroscience Society meeting, Sendai, Japan
- 2023 FENS Regional Meeting (FRM) 2023, Faro, Portugal
- 2023 Development and Stem Cells regional meeting, Klosterneuburg, Austria (keynote)
- 2023 University of Faro, Portugal (Host: Inês Araújo)

- 2022 Medical University of Vienna, Austria (Host: Vanja Nagy)
- 2021 Medical University of Vienna, Austria (Host: Elisa Vilardo)
- 2020 Christmas Symposium, Cajal Institute, Madrid, Spain (plenary)
- 2019 IMBA/IMP Recess, Vienna, Austria
- 2019 IMBA Mini-Symposium on Stem Cell Biology, Vienna, Austria
- 2018 CMMC Mini-Symposium in Molecular Medicine, Cologne, Germany
- 2018 2nd International Symposium in Neurosciences, Fortaleza, Brazil
- 2018 S&B International Education Program, RIKEN Brain Science Institute (BSI), Wako, Japan
- 2018 UC-Biotech, Cantanhede, Portugal (Host: Lino Ferreira)
- 2018 CNC PhD Programme PDBEB Symposium, Coimbra, Portugal
- 2017 European Stroke Organization (ESO) Workshop, Garmisch-Partenkirchen, Germany
- 2015 Network for European CNS Transplantation & Restoration (NECTAR), Lund, Sweden
- 2015 ICVS, University of Minho, Braga, Portugal (Host: Luisa Pinto)

OTHER RESEARCH ACTIVITIES

Editor/reviewer activity: Guest Editor of Frontiers Research Topic “Regeneration and Brain Repair”; Guest Editor of JoVE Methods Collection “Neuronal reprogramming: Methods and Applications”; Reviewer for Nat Neurosci, Sci Rep, Transl Psychiatry, iScience, Cell Death Dis, Front Neurosci, Front Cell Neurosci, Front Neuroanat, Neural Regen Res, Neurosci Lett, Mol Neurobiol, Neural Plast, Cells, Life. Reviewer in international conferences: SY-Stem 2021 and 2022, ISSCR since 2023.

Membership in scientific societies (past and present): Society for Neuroscience (SfN), Federation of European Neuroscience Societies (FENS), Austrian Neuroscience Association (ANA), International Society for Stem Cell Research (ISSCR), German Stem Cell Network (GSCN), Portuguese Society for Neuroscience (SPN), Portuguese Society for Stem Cells and Cell Therapies (SPCE-TC).

Public outreach:

- 2026 neugierige.köpfe: Science Meets Classroom; Lange Nacht der Forschung
- 2023 Kharkiv-Vienna Science School: lab visit with educational activities (IMBA)
Science Olympiad Day: lab visit with educational activities (IMBA)
- 2019 BMC Open day, LMU Munich