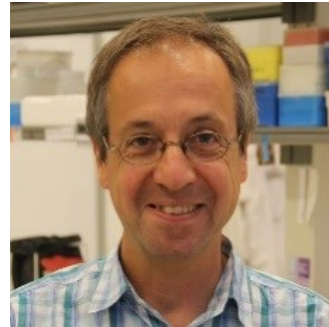


ESN 2019 Elections

New ESN Council member

CARLOS DUARTE, Ph.D.

Full Professor, Department of Life Sciences,
Centre for Neuroscience and Cell Biology,
University of Coimbra,
Coimbra, Portugal



BIOGRAPHICAL SKETCH

NAME Duarte, Carlos Bandeira	POSITION TITLE Full Professor, University of Coimbra, Portugal
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EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
University of Coimbra, Portugal	B.Sc.	1987	Biology
University of Coimbra, Portugal	PhD	1993	Cell Biology

A. Personal Statement

The research in my laboratory is focused on the cellular and molecular mechanisms of synaptic plasticity in the hippocampus, in particular on the role played by the neurotrophin brain-derived neurotrophic factor (BDNF). We are also interested in the alterations in the regulation of excitatory and inhibitory synapses in brain disorders characterized by excessive excitatory activity, such as in brain ischemia and in epilepsy. To address these questions we use a combination of experimental approaches, including cell cultures, subcellular fractionation, biochemistry, cellular and molecular biology and electrophysiology, as well as in vivo models of brain disorders. These studies are expected to contribute to the identification of novel therapeutic targets for stroke and epilepsy.

B. Positions and Honors**(i) Positions and Employment**

2019 - Full Professor, Department of Life Sciences, University of Coimbra (Portugal)
2016 Program chair - 7th International Society for Neurochemistry (ISN) special neurochemistry conference 'Synaptic function and dysfunction in brain diseases'. Coimbra, Portugal
2014 - 2018 Vice-Dean of the Center for Neuroscience and Cell Biology (University of Coimbra, Portugal)
2011 - 2016 Member of the Neurasmus (European MSc Program in Neuroscience) Educational Board
2007 - 2011 Faculty member of the MIT-Portugal PhD program in Bioengineering
2005 - 2012 Director of the Cell Biology Unit, Biocant – Center for Innovation in Biotechnology (Cantanhede, Portugal)
2002 - 2011 Director of the Department of Neurobiology, Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)
2002 - 2018 Associate Professor, Department of Life Sciences, University of Coimbra (Portugal)
1997 Visiting Scientist, Royal Danish School of Pharmacy, Copenhagen, Denmark
1993 - 2002 Assistant Professor, Department of Zoology, University of Coimbra (Portugal)
1989 - 1991 Visiting student, Cell Biology Program, Hospital for Sick Children, Toronto, ON
1989 - 1993 Teaching Assistant, Department of Zoology, University of Coimbra (Portugal)

(ii) Reviewer for Grant Agencies

2018 Grant Evaluator, European Research Council
 2017 Grant Evaluator, Natural Sciences and Engineering Research Council of Canada
 2015, 2016 Member of the Committee for Evaluation of applications for post-doc fellowships – National call, Portuguese Research Council (FCT)
 2015 Grant Evaluator, Swiss National Science Foundation

2015 Grant Evaluator, University of Bordeaux, France
 2015, 2017-2019 Grant Evaluator, National Science Center, Poland
 2015, 2017 Grant Evaluator, Israel Science Foundation
 2015 Grant Evaluator, Estonian Research Council
 2014 Grant Evaluator, EEA Research Programme (Romania)
 2014 Evaluator of Post-Doc fellowships, Research Foundation – Flanders (Belgium)
 2013 Grant Evaluator, University of Trieste (Italy)
 2013 Grant Evaluator, Alzheimer's Association (USA)
 2012, 2016, 2018 Grant Evaluator, Italian Ministry of Education, Universities and Research (MIUR)
 2011 Grant Evaluator, Medical Research Council, UK
 2009, 2012, 2108 Grant Evaluator in 'Earth and Life Sciences', Netherlands Organization for Scientific Research
 2008, 2009 Grant Evaluator, National Science Foundation (NSF, USA)
 2008 Coordinator of the panel in Biological Sciences and member of the panel in Biochemical Engineering and Biotechnology, Portuguese Research Council (FCT) Peer Review committee
 2007 - 2010 Member of the Committee for Evaluation of applications for PhD and post-doc fellowships – National call, Portuguese Research Council (FCT)

(iii) Teaching activities by invitation

2018 Visiting Professor, University of Catanzaro (Italy) (1 week)
 2014 Visiting Professor, University of Pecz (Hungary) (1 week)
 2014-2019 Visiting Professor, University of Sannio (Italy) (1 week/year)
 2013 Lecturer at the ISN/FENS School on 'Local protein synthesis in axons and dendrites' (Kolymbari, Crete, Greece), September 24-28.
 2013 Lecturer at the IBRO Kemali College on 'RNA and etiology of brain diseases' (Cortona, Italy), August 26-30.
 2008-2012 Visiting Professor, University of Sannio (Italy) (1 week/year)
 2010 Visiting Professor, University of Trieste (Italy) (1 week)

(iv) Invited seminars

- Faculty of Medicine, Università degli Studi di Catanzaro Magna Graecia, Italy. June 2018.
- iBiMED, University of Aveiro, Portugal. May 2018.
- Department of Science and Technology, University of Sannio, Benevento, Italy. April 2018.
- Divisione di Farmacologia, Dipartimento di Neuroscienze, Scienze Riproduttive e Odontostomatologiche, Scuola di Medicina e Chirurgia Università degli Studi di Napoli "Federico II", Italy. April 2018.
- Novartis, Lisbon, Portugal. May 2017.
- Department of Neurobiology, IZN, University of Heidelberg, Germany. May 2016.

- Divisione di Farmacologia, Dipartimento di Neuroscienze, Scienze Riproduttive e Odontostomatologiche, Scuola di Medicina e Chirurgia Università degli Studi di Napoli "Federico II", Naples, Italy. March 2015.
- Università degli Studi di Catanzaro Magna Graecia, Italy. June 2014.
- Department of Pharmacology, University of Zurich, Switzerland. April 2014.
- Instituto de Tecnologia Química e Biológica, New University of Lisbon, Portugal. February 2014.
- Institute for Neurosciences Castilla y León, University of Salamanca, Spain. October 2011.
- Faculty of Pharmacy, University of Lisbon, Portugal. January 2011.
- University of Trieste, Italy. October 2010.
- Biogem Center, Ariano, Italy. June 2010.
- Biogem Center, Ariano, Italy. June 2008.
- Faculty of Pharmacy, University of Lisbon, Portugal. July 2006.
- IBMC, University of Porto, Portugal. January 2006.
- Instituto de Tecnologia Química e Biológica, New University of Lisbon, Portugal.. April 2005.
- Faculty of Medicine, University of Valladolid, Valladolid, Spain. June 2004.

(v) Editorial / Reviewer activity

Membership of Editorial Boards

2018 -	Associate Editor of 'Frontiers in Synaptic Neuroscience'
2018-	Associate Editor of 'Neurochemical Research'
2018 -	Member of the Editorial Board of 'Frontiers in Molecular Neuroscience'
2016 - 2018	Member of the Editorial Board of 'Frontiers in Synaptic Neuroscience'
2016 -	Member of the Editorial Board of 'Heliyon'
2006-2017	Member of the Editorial Board of 'Neurochemical Research'
1997-2018	Member of the Editorial Board of the 'Journal of Neuroscience Research'

Ad hoc reviewer for the following journals:

Acta Pharmacologica Sinica, BBA-Molecular Cell Research, BMC, Biology, BMC Molecular Biology, BMC Neuroscience, Brain and Cognition, Brain Research, Brain Research Bulletin, British Journal of Pharmacology, cellular and Molecular Neurobiology, Cellular and Molecular Neuroscience, Cerebral Cortex, Current Drug Targets, Electrophoresis, EMBO Reports, eNeuro, Experimental Cell Research, European Journal of Neuroscience, European Journal of Pharmacology, European Neuropsychopharmacology, FEBS Letters, Free Radicals in Biology and Medicine, Frontiers in Aging Neuroscience, Frontiers in Cellular Neuroscience, Hippocampus, Human Molecular Genetics, International Journal of Developmental Neuroscience, Investigative Ophthalmology and Vision Sciences, Journal of Biological Chemistry, Journal of Cell Science, Journal of Cerebral Blood Flow and Metabolism, Journal of Neurochemistry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Journal of Neuroscience Research, Journal of Pharmacology and Experimental Therapeutics, Journal of Proteome Research, Molecular and Cellular Biochemistry, Molecular and Cellular Neuroscience, Molecular Neurobiology, Molecular Pharmacology, Molecular Psychiatry, Naunyn-Schmiedeberg's Archives Pharmacology, Neurobiology of Disease, Neurochemical Research, Neurochemistry International, Neuropharmacology, Neuropsychopharmacology, Neuroscience, Neuroscience

Letters, Neuroscientist, Peptides, PLoS One, Progress in Neurobiology, Purinergic Signaling, Scientific Reports, Synapse.

(iv) Honors

1994	Gulbenkian Prize of Research for Young Investigators (Neuroscience)
2005	Prize for Excellence in Research, Portuguese Research Council (FCT)
2012	Best Portuguese paper in Cellular and Molecular Neuroscience – Portuguese Society for Neuroscience

B. Publications

(i) Research papers and review articles

Total number of publications: 132; **h-index** - 33; **Total number of citations (Web of Science):** 3968; **ORCID ID:** orcid.org/0000-0002-1474-0208

1. P. Afonso, P. De Luca, R.S. Carvalho, L. Cortes, P. Pinheiro, B. Oliveiros, R.D. Almeida, M. Mele, C.B. Duarte (2019) BDNF upregulates synaptic NMDA receptors by enhancing Pyk2 local translation in cultured hippocampal neurons. *Science Signal* (in press)
2. S. Oliveira, C. Figueiredo-Pereira, C.B. Duarte, H.L.A. Vieira (2019) P2X7 receptors mediate CO-induced alterations in gene expression in cultured cortical astrocytes - transcriptomic study. *Mol Neurobiol* (doi: 10.1007/s12035-018-1302-7)
3. M. Mele, R.O. Costa, C.B. Duarte (2019) Alterations in GABA_A-receptor trafficking and synaptic dysfunction in brain disorders. *Front Cell Neurosci* 13:77. (review article)
4. W. Singer, M. Manthey, R. Panford-Walsh, L. Matt, H.S. Geisler, E. Passeri, G. Baj, E. Tongiorgi, G. Leal, C.B. Duarte, I.L. Salazar, P. Eckert, K. Rohbock, J. Hu, J. Strotmann, P. Ruth, U. Zimmermann, L. Rüttiger, T. Ott, T. Schimmang, M. Knipper (2018) BDNF-Live-Exon-Visualization (BLEV) Allows differential detection of BDNF transcripts in vitro and in vivo. *Front Mol Neurosci* 11:325.
5. G. Leal, D. Comprido, P. De Luca, E. Morais, L. Rodrigues, M. Mele, A.R. Santos, R.O. Costa, M.J. Pinto, S. Patil, B. Berentsen, P. Afonso, L. Carreto, K.W. Li, P. Pinheiro, R.D. Almeida, M.A.S. Santos, C.R. Bramham, C.B. Duarte (2017) The RNA-binding protein hnRNP K mediates the effect of BDNF on dendritic mRNA metabolism and regulates synaptic NMDA receptors in hippocampal neurons. *eNeuro* 4: e0268-17.
6. M. Mele, M.C. Aspromonte, C.B. Duarte (2017) Downregulation of GABA_A Receptor Recycling Mediated by HAP1 Contributes to Neuronal Death in In Vitro Brain Ischemia. *Mol Neurobiol*. 54:45-57.
7. C.B. Duarte, A.L. Carvalho (2016) 7th ISN special neurochemistry conference 'Synaptic function and dysfunction in brain diseases'. *J Neurochem* 139:918-920.
8. I.L. Salazar, M. Mele, M. Caldeira, R.O. Costa, B. Correia, S. Frisari, C.B. Duarte (2017) Preparation of primary cultures of embryonic rat hippocampal and cerebrocortical neurons. *Bio-protocol* 7(18): e2551.

9. M. Mele, G. Leal, C.B. Duarte (2016) Role of GABA_A R trafficking in the plasticity of inhibitory synapses. *J Neurochem* 139: 997-1018. (review article)
10. M. Curcio, I.L. Salazar, M. Mele, L.M. Canzoniero, C.B. Duarte (2016) Calpains and neuronal damage in the ischemic brain: the swiss knife in synaptic injury. *Prog Neurobiol* 143:1-35. (review article)
11. M. Caldeira, J.S. Ferreira, A.L. Carvalho, C.B. Duarte (2016). Biotinylation and purification of plasma membrane-associated proteins from rodent cultured neurons. *Bio-protocol* 6: e1807.
12. B. Mollereau, N.M. Rzechorzek, B.D. Roussel, M. Sedru, D. Van denBrink, B. Bailly-Maitre, F. Palladino, D.B. Medinas, P.M. Domingos, S. Hunot, S. Chandran, S. Birman, T. Baron, D. Vivien, C.B. Duarte, H.D. Ryoo, H. Steller, F. Urano, E. Chevet, G. Kroemer, A. Ciechanover, E.J. Calabrese, R.J. Kaufman, C. Hetz (2016) Adaptive preconditioning in neurological diseases: therapeutic insights from proteostatic perturbations. *Brain Res.* 1648(Pt B):603-616 (review article)
13. J.T. Costa, M. Mele, M.S. Baptista, J.R. Gomes, K. Ruscher, R.J. Nobre, L.P. de Almeida, T. Wieloch, C.B. Duarte (2016) Gephyrin cleavage in in vitro brain ischemia decreases GABA_A receptor clustering and contributes to neuronal death. *Mol Neurobiol.* 53, 3513-3527.
14. M.M. Vieira, J. Schmidt, J.S. Ferreira, K. She, S. Oku, M. Mele, A.E. Santos, C.B. Duarte, A.M. Craig, A.L. Carvalho (2016) Multiple domains in the C-terminus of NMDA receptor GluN2B subunit contribute to neuronal death following in vitro ischemia. *Neurobiol Dis* 89, 223-234.
15. I.L. Salazar, M.V. Caldeira, M. Curcio, C.B. Duarte (2016) The Role of Proteases in Hippocampal Synaptic Plasticity: Putting Together Small Pieces of a Complex Puzzle. *Neurochem Res* 41, 156-182. (review article)
16. S.R. Oliveira, H.L. Vieira, C.B. Duarte (2015) Effect of carbon monoxide on gene expression in cerebrocortical astrocytes: Validation of reference genes for quantitative real-time PCR. *Nitric Oxide* 49, 80-89
17. M. Curcio, I.L. Salazar, A.R. Inácio, E.P. Duarte, L.M. Canzoniero, C.B. Duarte (2015) Brain ischemia downregulates the neuroprotective GDNF-Ret signaling by a calpain-dependent mechanism in cultured hippocampal neurons. *Cell Death Dis* 6, e1645.
18. A.R. Santos, M. Mele, S.H. Vaz, B. Kellermayer, M. Grimaldi, M. Colino-Oliveira, D.M. Rombo, D. Comprido, A.M. Sebastião, C.B. Duarte (2015) Differential role of the proteasome in the early- and late-phases of BDNF-induced facilitation of LTP. *J Neurosci* 35, 3319-3329.
19. G. Leal, P.M. Afonso, I.L. Salazar, C.B. Duarte (2015) Regulation of hippocampal synaptic plasticity by BDNF. *Brain Res* 1621, 82-101 (review article)
20. G. Leal, P.M. Afonso, C.B. Duarte (2014) Neuronal activity induces synaptic delivery of hnRNP A2/B1 by a BDNF-dependent mechanism in cultured hippocampal neurons. *PLoS One* 9, e108175.
21. A.T. Simões, N. Gonçalves, R.J. Nobre, C.B. Duarte, L. Pereira de Almeida (2014) Calpain inhibition reduces ataxin-3 cleavage alleviating neuropathology and motor impairments in mouse models of Machado-Joseph disease. *Hum Mol Genet* 23, 4932-4944.
22. M. Vieira, J. Fernandes, L. Carreto, B. Anuncibay-Soto, M. Santos, J. Han, A. Fernández-López, C.B. Duarte, A.L. Carvalho, A.E. Santos (2014) Ischemic insults induce necroptotic cell death in hippocampal neurons through the up-regulation of endogenous RIP3. *Neurobiol Dis.* 68, 26-36.

- 23.J. Fernandes, M. Vieira, L. Carreto, M.A. Santos, C.B. Duarte, A.L. Carvalho, A.E. Santos (2014) In vitro ischemia triggers a transcriptional response to down-regulate synaptic proteins in hippocampal neurons. *PLoS One* 9, e99958.
- 24.M. Mele, L. Ribeiro, A.R. Inácio, T. Wieloch, C.B. Duarte (2014) GABA_A receptor dephosphorylation followed by internalization is coupled to neuronal death in in vitro ischemia. *Neurobiol Dis* 65, 220–232.
- 25.M.V. Caldeira, I.L. Salazar, M. Curcio, L.M.T. Canzoniero, C.B. Duarte (2014) Role of the ubiquitin-proteasome system in brain ischemia: Friend or foe? *Prog Neurobiol* 112, 50-69.
- 26.G. Leal, D. Comprido, C.B. Duarte (2014) BDNF-induced local protein synthesis and synaptic plasticity. *Neuropharmacol* 76, 639-656 (invited review)
- 27.C.V. Melo, S. Okumoto, J.R. Gomes, M.S. Baptista, B.A. Bahr, W.B. Frommer, C.B. Duarte (2013) Spatiotemporal resolution of BDNF neuroprotection against glutamate excitotoxicity in cultured hippocampal neurons. *Neurosci* 237, 66-86.
- 28.C.V. Melo, M. Mele, M. Curcio, D. Comprido, C.G. Silva, C.B. Duarte (2013) BDNF regulates the expression and distribution of vesicular glutamate transporters in cultured hippocampal neurons. *PLoS One*. 8, e53793.
- 29.M.V. Caldeira, M. Curcio, G. Leal, I.L. Salazar, M. Mele, A.R. Santos, C.V. Melo, P. Pereira, L.M. Canzoniero, C.B. Duarte CB (2013) Excitotoxic stimulation downregulates the ubiquitin-proteasome system through activation of NMDA receptors in cultured hippocampal neurons. *Biochim Biophys Acta* 1832, 263-274.
- 30.A.T. Simões, N. Gonçalves, A. Koeppen, N. Déglon, S. Kügler, C.B. Duarte, L. Pereira de Almeida (2012) Calpastatin-mediated inhibition of calpains in the mouse brain prevents mutant ataxin 3 proteolysis, nuclear localization and aggregation, relieving Machado-Joseph disease. *Brain* 135, 2428-2439.
- 31.E.P. Duarte, M. Curcio, L.M. Canzoniero, C.B. Duarte (2012) Neuroprotection by GDNF in the ischemic brain. *Growth Factors* 30, 242-257 (review article)
- 32.J.R. Gomes, J.T. Costa, C.V. Melo, F. Felizzi, P. Monteiro, M.J. Pinto, A.R. Inácio, T. Wieloch, R.D. Almeida, M. Grãos, C.B. Duarte (2012) Excitotoxicity downregulates TrkB.FL signaling and upregulates the neuroprotective truncated TrkB receptors in cultured hippocampal and striatal neurons. *J Neurosci* 32, 4610-4622.
- 33.M.S. Baptista, C.B. Duarte, Patrícia Maciel (2012) Role of the ubiquitin-proteasome system in nervous system function and disease: using *C. elegans* as a dissecting tool. *Cell Mol Life Sci* 69, 2691-715 (review article)
- 34.S.D. Santos, O. Iuliano, L. Ribeiro, J. Veran, J.S. Ferreira, P. Rio, C. Mülle, C.B. Duarte, A.L. Carvalho (2012) Contactin associated protein 1 (Caspr1) regulates the traffic and synaptic content of α -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)-type glutamate receptors. *J Biol Chem* 287, 6868-6877.
- 35.J.R. Gomes, A.C. Lobo, C.V. Melo, A.R. Inácio, J. Takano, N. Iwata, T.C. Saido, L.P. de Almeida, T. Wieloch, C.B. Duarte (2011) Cleavage of the vesicular GABA transporter under excitotoxic conditions is followed by accumulation of a truncated VGAT in non-synaptic sites. *J Neurosci* 31, 4622-4635.
- 36.A.C. Lobo, J.R. Gomes, T. Catarino, M. Mele, P. Fernandez, A.R. Inácio, B.A. Bahr, A.E. Santos, T. Wieloch, A.L. Carvalho, C.B. Duarte (2011) Cleavage of the vesicular glutamate transporters under excitotoxic conditions. *Neurobiol Dis* 44, 292-303.
- 37.A.S. Lourenço, I. Baldeiras, M. Grãos, C.B. Duarte (2011) Proteomics-based technologies in the discovery of biomarkers for multiple sclerosis in the cerebrospinal fluid. *Curr Mol Med* 11, 326-349. (review article)

38. B.M. Neves, M. Gonçalo, A. Figueiredo, C.B. Duarte, M.C. Lopes, M.T. Cruz (2011) Signal transduction profile of chemical sensitizers in dendritic cells: an endpoint to be included in a cell-based in vitro alternative approach to hazard identification? *Toxicol Appl Pharmacol*. 250, 87-95.
39. A.R. Santos, D. Comprido, C.B. Duarte (2010) Regulation of local translation at the synapse by BDNF. *Prog Neurobiol* 92, 505-516. (review article)
40. M. Vieira, J. Fernandes, A. Burgeiro, G.M. Thomas, R.L. Huganir, C.B. Duarte, A.L. Carvalho, A.E. Santos (2010) Excitotoxicity through Ca²⁺-permeable AMPA receptors requires Ca²⁺-dependent JNK activation. *Neurobiol Dis* 40, 645-655.
41. M.S. Baptista, C.V. Melo, M. Armelão, D. Herrmann, D.O. Pimentel, G. Leal, M.V. Caldeira, B.A. Bahr, M. Bengtson, R.D. Almeida, C.B. Duarte (2010) Role of the proteasome in excitotoxicity-induced cleavage of glutamic acid decarboxylase in cultured hippocampal neurons. *PLoS One* 5, e10139.
42. A.P. Simões-Wüst, M. Grãos, C.B. Duarte, R. Brenneisen, M. Hamburger, M. Mennet, M.H. Ramos, M. Schnelle, R. Wächter, A.M. Worel, U. von Mandach (2010) Juice of *Bryophyllum pinnatum* (Lam.) inhibits oxytocin-induced increase of the intracellular calcium concentration in human myometrial cells. *Phytomedicine* 17, 980-986.
43. S.D. Santos, B. Manadas, C.B. Duarte, A.L. Carvalho (2009) Proteomic analysis of an interactome for long-form AMPA receptor subunits. *J Proteome Res* 9, 1670-1682.
44. V. Francisco, B.M. Neves, M.T. Cruz, M. Gonçalo, A. Figueiredo, C.B. Duarte, M.C. Lopes (2009) Effect of lipopolysaccharide, skin sensitizers and irritants on thioredoxin-1 expression in dendritic cells: relevance of different signalling pathways. *Arch Dermatol Res*. 302, 271-282.
45. B. Manadas, A.R. Santos, K. Szabadfi, J. Gomes, S. Garbis, M. Fountoulakis, C.B. Duarte (2009) BDNF-induced changes in the expression of the translation machinery in hippocampal neurons: protein levels and dendritic mRNA. *J Proteome Res* 8, 4536-4552.
46. S.D. Santos, A.L. Carvalho, M.V. Caldeira, C.B. Duarte (2009) Regulation of AMPA receptors and synaptic plasticity. *Neurosci* 158, 105-125. (review article)
47. B.M. Neves, M.T., Cruz, V. Francisco, C. Garcia-Rodriguez, R. Silvestre, A. Cordeiro-da-Silva, A.M. Dinis, M.T. Batista, C.B. Duarte, M.C. Lopes (2009) Differential roles of PI3-Kinase, MAPKs and NF-kappaB on the manipulation of dendritic cell T(h)1/T(h)2 cytokine/chemokine polarizing profile. *Mol Immunol*. 46, 2481-2492.
48. A.R. Santos, C.B. Duarte (2008) Validation of internal control genes for expression studies: Effects of the neurotrophin BDNF on hippocampal neurons. *J Neurosci Res* 86, 3684-3692.
49. B.M. Neves, M.T. Cruz, V. Francisco, M. Gonçalo, A. Figueiredo, C.B. Duarte, M.C. Lopes (2008) Differential modulation of CXCR4 and CD40 protein levels by skin sensitizers and irritants in the FSDC cell line. *Toxicol Lett* 177, 74-82.
50. A.R. Gomes, J.S. Ferreira, A.V. Paternain, J. Lerma, C.B. Duarte, A.L. Carvalho (2008) Characterization of alternatively spliced isoforms of AMPA receptor subunits encoding truncated receptors. *Mol Cell Neurosci* 37, 323-334.
51. A.L. Carvalho, M.V. Caldeira, S.D. Santos, C.B. Duarte (2008) Role of BDNF at glutamatergic synapses. *Brit J Pharmacol* 153, S310-S324. (review article)
52. M.V. Caldeira, C.V. Melo, D.B. Pereira, R. Carvalho, S.S. Correia, D.S. Backos, A.L. Carvalho, J.A. Esteban, C.B. Duarte (2007) BDNF regulates the expression and the synaptic delivery of AMPA receptor subunits in hippocampal neurons. *J Biol Chem* 282, 12619-12628.

- 53.M.V. Caldeira, C.V. Melo, D.B. Pereira, R.F. Carvalho, A.L. Carvalho, C.B. Duarte (2007) BDNF regulates the expression and traffic of NMDA receptors in cultured hippocampal neurons. *Mol Cell Neurosci* 35, 208-219.
- 54.A.R. Gomes, S.S. Correia, J.A. Esteban, C.B. Duarte, A.L. Carvalho (2007) PKC anchoring to GluR4 AMPA receptor subunit modulates PKC-driven receptor phosphorylation and surface expression. *Traffic* 8, 259-269.
- 55.L.P. Montezinho, A. Mork, C.B. Duarte, S. Penschuck, C.F.G. Geraldés, M.M.C.A. Castro (2007) Effect of mood stabilizers on dopamine D2-like receptor-mediated inhibition of adenylate cyclase. *Bipolar Disorders* 9, 290-297.
- 56.M.T. Cruz, B.M. Neves, M. Gonçalo, A. Figueiredo, C.B. Duarte, M.C. Lopes (2007) Effect of skin sensitizers on inducible nitric oxide synthase expression and nitric oxide production in skin dendritic cells: role of different immunosuppressive drugs. *Immunopharmacol Immunotoxicol.* 29:225-41.
- 57.D.B. Pereira, N. Rebola, R.J. Rodrigues, R.A. Cunha, A.P. Carvalho, C.B. Duarte (2006) TrkB receptors modulation of glutamate release is limited to a subset of nerve terminals in the adult rat hippocampus. *J. Neurosci. Res.* 83, 832-844.
- 58.B.J. Manadas, K. Vougas, M. Fountoulakis, C.B. Duarte (2006) Sample sonication after trichloroacetic acid (TCA) precipitation increases protein recovery, resolution and reproducibility in two-dimensional gel electrophoresis. *Electrophoresis* 27, 1825-1831.
- 59.A.E. Santos, C.B. Duarte, M. Iizuka, E.L. Barsoumian, J. Ham, M.C. Lopes, A.P. Carvalho, A.L. Carvalho (2006) Excitotoxicity mediated by Ca²⁺ permeable GluR4-containing AMPA receptors involves the AP-1 transcription factor. *Cell Death Differ.* 13, 652-660.
- 60.L.P. Montezinho, M.M.C.A. Castro, C.B. Duarte, S. Penschuck, C.F.G. Geraldés, A. Mork (2006) The interaction between dopamine D2-like and beta-adrenergic receptors in the prefrontal cortex is altered by mood stabilizing agents. *J. Neurochem.* 96, 1336-1348.
- 61.R.D. Almeida, B.J. Manadas, C.V. Melo, J.R. Gomes, C.M. Mendes, M.M. Grãos, R.F. Carvalho, A.P. Carvalho and C.B. Duarte (2005) Neuroprotection by BDNF against glutamate-induced apoptotic cell death is mediated by ERK and PI3-K pathways. *Cell Death Differ.* 12, 1329-1343.
- 62.M.T. Cruz, M. Gonçalo, M. Paiva, J.M. Morgado, A. Figueiredo, C.B. Duarte and M.C. Lopes (2005) Contact sensitizers downregulate the expression of the chemokine receptors CCR6 and CXCR4 in a skin dendritic cell line. *Arch. Dermatol. Res.* 297, 43-47.
- 63.A.L. Vital, M. Gonçalo, M.T. Cruz, C.B. Duarte, A. Figueiredo, A.P. Carvalho, M.C. Lopes (2005) The sensitizer nickel sulfate and 2,4-dinitrofluorobenzene increase CD40 and IL-12 receptor expression in a fetal skin dendritic cell line. *Biosci. Rep.* 24, 191-202.
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(ii) Book chapters

1. J.R. Gomes, A. Lobo, C.B. Duarte and M. Grãos (2019) BDNF-induced intracellular signaling. In: *Neuromethods - Brain Derived Neurotrophic Factor*, in press (doi: 10.1007/7657_2017_6) (C.B. Duarte and E. Tongiorgi, eds). Springer Science, New York

2. G. Leal, C.R. Bramham, C.B. Duarte (2017) BDNF and Hippocampal Synaptic Plasticity. *Vitam Horm.* 104:153-195.
3. D. Comprido, M. Mele, G. Leal, J. Ferreira, C.B. Duarte (2017) Transporte axonal. In: *Neurociências*, Chapter 3, pp. 37-56 (A.C. Rego, C.B. Duarte and C.R. Oliveira, eds). Lidel, Lisboa.
4. I.L. Ferreira, E.P. Duarte, D. Comprido, G. Baltazar, A.C. Rego and C.B. Duarte (2017) Fatores neurotróficos. In: *Neurociências*, Chapter 13, pp. 231-252 (A.C. Rego, C.B. Duarte and C.R. Oliveira, eds). Lidel, Lisboa.
5. A.E. Santos, C.B. Duarte and A.C. Rego (2017) Acidente vascular cerebral e isquemia neuronal. In: *Neurociências*, Chapter 28, pp. 513-540 (A.C. Rego, C.B. Duarte and C.R. Oliveira, eds). Lidel, Lisboa.
6. R.D. Almeida and C.B. Duarte (2014) p75NTR processing and signaling: functional role. In: *Handbook of Neurotoxicity*, pp. 1899-1923 (R.M. Kostrzewa, ed.). Springer.
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14. C.A.M. Carvalho, C.B. Duarte, D.L. Santos, E.J. Cragoe Jr. and A.P. Carvalho (1989) Calcium uptake by synaptosomes with low and high Na⁺ content and effect of Ca²⁺ antagonists. In: *Methodological Surveys in Biochemistry and Analysis*, vol. 19, pp.133-136 (E. Reid et al. eds.). Royal Society of Chemistry, London.

(iii) Edition of books

- Brain-derived neurotrophic factor. Neuromethods series, Springer Nature. Editors: Carlos B. Duarte, Enrico Tongiorgi. (in press)
- Neurociências. Lidel, Lisboa. 2017. Editors: Ana Cristina Rego, Carlos B. Duarte, Catarina Oliveira (in Portuguese)

C. Funding as Principal Investigator

- "BDNF-induced alterations in the synaptic proteome and neuronal excitability in the pilocarpine model of temporal lobe epilepsy". FCT, Portugal. PTDC/MED-NEU/28656/2017. July 2018- June 2021
- "Novel cerebrospinal fluid and serum biomarkers for Multiple Sclerosis". National Multiple Sclerosis Society, RG-1601-07502. October 2016 - September 2019
- "Downregulation of the GABAergic synaptic transmission in brain ischemia - molecular mechanisms of GABAA receptor internalization". FCT, Portugal. PTDC/NEU-NMC/0198/2012
- "Regulation of the ubiquitin-proteasome system by BDNF in hippocampal synapses: role in synaptic plasticity". FCT, Portugal. PTDC/SAU-NMC/120144/2010
- "Regulation of hnRNPs by the neurotrophin BDNF: role in synaptic plasticity". FCT, Portugal. PTDC/SAU-NEU/104297/2008
- "Identification of Biomarkers for Multiple Sclerosis". Biogem Idec Iberia (Spain) (March 2007- February 2010)
- "Cleavage of the vesicular glutamate (VGLUT) and GABA (VGAT) transporters under excitotoxic conditions: identification of the cleavage sites and functional implications". FCT, Portugal. PTDC/SAU-NEU/65846/2006
- "Mechanisms of neuronal plasticity and neuroprotection induced by BDNF in the hippocampus: inhibition of degeneration vs. regeneration". FCT, Portugal. PTDC/SAU-FCF/72283/2006
- "Regulation of the expression of ionotropic glutamate receptors by brain derived neurotrophic factor in hippocampal neurons". FCT, Portugal. POCTI/BCI/46466/2002
- "Neuroprotective changes in the proteome induced by brain derived neurotrophic factor: proteomic studies in cultured hippocampal neurons". FCT, Portugal. POCTI/NSE/46441/2002
- "Expression and functional characteristics of naturally occurring truncated forms of AMPA-type glutamate receptor subunits". FCT, Portugal. POCTI/MGI/43629/2001.
- "Role of proteases in cell death by apoptosis during photodynamic therapy of cancer". FCT, Portugal. POCTI/MGI/43629/2001; 01/10/01 - 30/09/03
- "Protective effects of neurotrophins against glutamate toxicity in the hippocampus: intracellular signaling mechanisms". FCT, Portugal. POCTI/1999/BCI/32631/99
- "Regulation of AMPA receptor activity and of neurotransmitter release by metabotropic glutamate receptors in cultured amacrine-like neurons". FCT, Portugal. PRAXIS/BIA/10181/98; PRAXIS XXI.
- "Modulation of neurotransmitter release by neurotrophins in the hippocampus". FCT, Portugal. PRAXIS/PCNA/C/BIA/96/96; PRAXIS XXI; 12/1997-12/2000 (co-PI)
- "Spatial distribution of glutamate receptors and of calcium channels as determined by imaging techniques". FCT, Portugal. PRAXIS/2/2.1/BIA/74/94; PRAXIS XXI; 09/1996-09/1999
- "Actividade dos receptores do glutamato nas células amácrinas colinérgicas; estudos de imagiologia". FCT, Portugal. PBIC/C/BIA/2079/95; JNICT; 1/02/96-1/02/98

D. Supervision e co-supervision of PhD Theses (concluded)

- Sara Oliveira. Carbon monoxide modulation of astrocytic viability following an ischemic injury - metabolic targets disclosure (University of Coimbra, 2018)
- Ivan Salazar. Regulation of the ubiquitin-proteasome system in brain ischemia: impact on the neuronal proteome (University of Coimbra, 2017)
- Pedro Afonso. Regulation of local translation by BDNF: effects on NMDA receptor trafficking (University of Coimbra, 2016)
- Graciano Leal. Regulation of hnRNP A2/B1 and hnRNP K by synaptic activity and BDNF in the hippocampus (University of Coimbra, 2014)

- Miranda Mele. Modulation of GABA_A receptors in cerebral ischemia: alterations in receptor trafficking coupled to neuronal death after oxygen/glucose deprivation (University of Coimbra, 2013)
- Michele Curcio. Excitotoxic Stimulation as ON/OFF Switch of the Proteolytic Systems in Hippocampal Neurons (University of Sannio [Italy], 2013) (co-supervisor)
- Carlos Henrique Vieira Melo. Molecular and Cellular Mechanisms of Neuroprotection and Plasticity induced by Brain-Derived Neurotrophic Factor (University of Salamanca, 2013)
- João Manuel Trigueiro Costa. The role of calpains on TrkB and gephyrin cleavage under excitotoxic conditions: characterization and functional implications (University of Coimbra, 2013)
- Andrea Catarina Amaro Campos Lobo. VGLUT1 and VGLUT2 cleavage under excitotoxic conditions and in cerebral ischemia. (University of Coimbra, 2011)
- João Carlos Rodrigues Gomes. VGAT and TrkB cleavage under excitotoxic conditions and in vivo cerebral ischemia: functional implications. (University of Coimbra, 2011)
- Ana Rita Araújo Santos. Regulation of the proteome by brain-derived neurotrophic factor in hippocampal neurons: protein synthesis vs protein degradation (University of Coimbra, 2010)
- Bruno José Oliveira Manadas; Brain-Derived Neurotrophic Factor induced changes in the proteome of cultured hippocampal neurons (University of Coimbra, 2008)
- Margarida Alexandra Vaz Caldeira; Regulation of the expression of ionotropic glutamate receptors by BDNF in hippocampal neurons (University of Coimbra, 2007) (Student of the PDBEB program)
- Maria Teresa de Jesus Matos; Alterations induced by the chemical sensitizer DNFB in skin dendritic cells: regulation of MAPKs, release of IL-1beta and membrane receptors (University of Coimbra, 2007)
- Ramiro Daniel Carvalho Almeida; Protective effect of neurotrophins in the hippocampus: intracellular signaling and regulation of the expression of proteins of the Bcl-2 family (University of Coimbra, 2004)
- Margarida Casal Ribeiro Castro Caldas Braga; Influence of steroid hormones in the synthesis and secretion of annexin-1, and in the activity of the NF-kB transcription factor (University of Coimbra, 2004) (co-supervisor)
- Maria Teresa de Teixeira Cruz Rosete; Intracellular signaling pathways involved in the expression of the inducible isoform of NOS: effects of LPS, cytokines and allergens in skin dendritic cells (University of Coimbra, 2003) (co-supervisor)
- Ildete Luísa de Araújo Ferreira; Toxicity in cultured retinal amacrine neurons: role of ionotropic glutamate receptors in excitotoxic environments (University of Coimbra, 2003) (co-supervisor)
- Susana Maria dos Santos Correia; Delivery of GluR4 AMPA receptor subunits to the synapse: role of the interaction with PKC gamma (University of Coimbra, 2003)
- Daniela B. Pereira; Modulation of glutamate release by intracellular signaling mechanisms involving tyrosine kinases in the adult hippocampus (University of Coimbra, 2003)
- Sara Monteiro Primo Jaleco; Transferência genética e homeostasia das subpopulações de células T de recém-nascido adulto (University of Coimbra, 2003) (co-supervisor)
- Edgar Rodrigues Gomes; Mechanisms of cell death activated by photodynamic therapy of cancer: effect of NO (University of Coimbra, 2001)
- Paulo Fernando Martins dos Santos; Characterization of neurotransmitter release by retina cells: evidences for differential release of acetylcholine and GABA (University of Coimbra, 1999)
- Ana Luísa Monteiro de Carvalho; Modulation of the activity of AMPA receptors by phosphorylation: study of GluR4 phosphorylation (University of Coimbra, 1998) (co-supervisor)
- Paula Maria Garcia Agostinho; Effect of oxidative stress on the activity of retina cells (University of Coimbra, 1998) (co-supervisor)

E. Supervision of postdoctoral fellows:

Margarida V. Caldeira, João T. Costa, Michele Curcio, Miranda Mele, Graciano Leal and Ivan Salazar