



Maria José Diógenes

Date of birth: 05/11/1977 | **Nationality:** Portuguese | **Gender:** Female |

Phone number: (+351) 967013865 (Mobile) | **Email address:**

diogenes@medicina.ulisboa.pt |

Address: Av. Prof Egas Moniz, Piso 1b, Av. Prof Egas Moniz, Piso 1b, 1649-028, Lisbon, Portugal (Work)

● ABOUT ME

Maternity: Three daughters (DOB: 22/12/2005; 24/03/2011 and 12/11/2020)

● EDUCATION AND TRAINING

1995 – 2001 Lisbon, Portugal

PHARMD-PHARMACEUTICAL SCIENCES Faculty of Pharmacy, University of Lisbon, Portugal

2001 – 2003 Lisbon, Portugal

MSC-MASTER IN NEUROSCIENCES Faculty of Medicine, University of Lisbon, Portugal

2009 Lisbon, Portugal

PHD-BIOMEDICAL SCIENCES. SPECIALTY IN BASIC NEUROSCIENCES Faculty of Medicine, University of Lisbon, Portugal

Lisbon, Portugal

HABILITATION Faculty of Medicine, University of Lisbon, Portugal

Website [Medicine. Specialty in Pharmacology](#)

EUROPEAN CERTIFIED PHARMACOLOGIST EPHAR and EACPT

● WORK EXPERIENCE

2023

PRESIDENT OF THE PEDAGOGICAL COUNCIL (FMUL)

12/2019 Lisbon, Portugal

ASSOCIATED PROFESSOR OF PHARMACOLOGY AND THERAPEUTICS. FACULTY OF MEDICINA UNIVERSITY OF LISBON

2021 – 2023

VICE-PRESIDENT OF THE PEDAGOGICAL COUNCIL (FMUL)

2022

PRESIDENT OF THE PORTUGUESE SOCIETY OF PHARMACOLOGY

2022

MEMBER OF THE SCIENTIFIC COUNCIL (FMUL)

MEMBER OF EPHAR'S EXECUTIVE

2017 Lisbon, Portugal

MEMBER OF THE MEDICINES EVALUATION BOARD (COMISSÃO DE AVALIAÇÃO DE MEDICAMENTOS) INFARMED AUTORIDADE NACIONAL DO MEDICAMENTO E PRODUTOS DE SAÚDE IP, PORTUGAL

2017 - 2020

ELECTED MEMBER OF THE PEDAGOGIC COUNCIL (FMUL)

2009 Lisbon, Portugal

INVESTIGATOR INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

2015 - 2019

TREASURER OF THE PORTUGUESE SOCIETY FOR NEUROSCIENCES

2009 - 2019

ASSISTANT PROFESSOR OF PHARMACOLOGY AND NEUROSCIENCES. FACULTY OF MEDICINE, UNIVERSITY OF LISBON. FACULTY OF MEDICINA UNIVERSITY OF LISBON

● ADDITIONAL INFORMATION**HONOURS AND AWARDS**

2017

Mantero Bellard award in neurodegenerative diseases – Santa Casa da Misericórdia Write here the description...

2021

Mantero Bellard award in neurodegenerative diseases – Santa Casa da Misericórdia Write here the description...

PROJECTS

2014 - 2015

"Recetores de adenosina: novos alvos farmacológicos para o tratamento do Síndrome de Rett". Financed by FCT. Coordinator: Maria José Diógenes.

2014 - 2017

Neurophysiological mechanisms of aging: novel view of old concepts. Financed by BIAL Foundation. Coordinator: Maria José Diógenes

2017 - 2020

Regulation of adenosine levels as a new therapeutic strategy for Rett Syndrome. Financed by Association française du syndrome de rett. Coordinator: Maria José Diógenes

2017 - 2021

Astrosomes: artificial astrocytes as a novel approach to regulate neuronal communication. Fundação para a Ciência e Tecnologia. PTDC/BTM-SAL/32147/2017. Co-PI: Maria José Diógenes (PI: Sandra H. Vaz)

2017 - 2021

Adenosine levels reestablishment: new approach for the treatment of Rett Syndrome. Financed by FCT Ref: PTDC/MED-NEU/31929/2017. Coordinator: Maria José Diógenes.

2017 - 2021

Novel therapeutic strategy and new biomarker for Alzheimer's Disease based on BDNF receptor cleavage. Santa Casa da Misericordia. Prémio Mantero Belard. Coordinator: Maria José Diógenes

2020 - 2023

Epileptogenesis and Epilepsy Network: from genes, synapses and circuitries to pave the way for novel drugs and strategies (EpiEpiNet). Twinning action. Maria José Diógenes: member of the team.

2022 – 2025

TAT-TrkB, a novel neuroprotective compound to fight Alzheimer's disease. Santa Casa da Misericordia. Prémio Mantero Belard. Coordinator: Maria José Diógenes

2023 – 2025

Innovation Pact HfPT-Health from Portugal. Funding:«Agendas/Alianças mobilizadoras para a Inovação Empresarial», Component 5 of Resilience and Recuperation Plan, Portugal. Maria Jose Diógenes: member of the team and PI of the project at IMM.

PUBLICATIONS

Diógenes MJ, Fernandes CC, Sebastião AM, Ribeiro JA (2004) Activation of adenosine A2A receptor facilitates BDNF modulation of synaptic transmission in hippocampal slices. *J Neurosci* 24, 2905-2913.

– 2004

Pousinha PI, Diógenes MJ, Sebastião A., Ribeiro JA (2006) Triggering of BDNF facilitatory action on neuromuscular transmission by adenosine A2A receptors. *Neurosci Lett* 404, 143-147.

Diógenes MJ, Assaife-Lopes N, Pinto-Duarte A, Sebastião AM, Ribeiro JA (2007) Influence of age on BDNF modulation of hippocampal synaptic transmission: interplay with adenosine A2A receptors. *Hippocampus* 17, 577-585.

Fontinha B.M., Diógenes M.J., Ribeiro J.A., Sebastião A.M. (2008) Enhancement of long-term potentiation by BDNF requires adenosine A2A receptor activation by endogenous adenosine. *Neuropharmacology*. 54,924-933.

Diógenes MJ and Outeiro TF (2010) Neurotrophic Factors as a Protective Strategy in Parkinson's Disease. *CNS&Neurological disorders-Drug Target*. 9,754-63.

Sebastião AM, Assaife-Lopes N, Diógenes MJ, Vaz SH, Ribeiro JA. (2010) Modulation of brain-derived neurotrophic factor (BDNF) actions in the nervous system by adenosine A(2A) receptors and the role of lipid rafts. *Biochim Biophys Acta*. 1808(5):1340-9.

Costenla AR, Diógenes MJ, Canas PM, Rodrigues RJ, Nogueira C, Maroco J, Agostinho PM, Ribeiro JA, Cunha RA, de Mendonça A (2011) Enhanced role of adenosine A(2A) receptors in the modulation of LTP in the rat hippocampus upon ageing. *Eur J Neurosci*. 34,12-21.

Diógenes MJ, Costenla AR, Lopes LV, Jerónimo-Santos A, Sousa VC, Fontinha BM, Ribeiro JA, Sebastião AM (2011) Enhancement of LTP in Aged Rats is Dependent on Endogenous BDNF. *Neuropsychopharmacology* 36,1823-36.

Kemppainen S, Rantamäki T, Jerónimo-Santos A, Lavasseur G, Autio H, Karpova N, Kärkkäinen E, Stavén S, Miranda HV, Outeiro TF, Diógenes MJ, Laroche S, Davis S, Sebastião AM, Castrén E, Tanila H (2012) Impaired TrkB receptor signaling contributes to memory impairment in APP/PS1 mice. *Neurobiol of Aging* 33,1122.e23-39.

Silva SL, Vaz AR, Diógenes MJ, van Rooijen N, Sebastião AM, Fernandes A, Silva RF, Brites D (2012) Neuritic growth impairment and cell death by unconjugated bilirubin is mediated by NO and glutamate, modulated by microglia, and prevented by glycoursoxycholic acid and interleukin-10. *Neuropharmacology* 62, 2398-2408.

Valadas JS, Batalha VL, Sebastião AM, Diógenes MJ, Lopes LV (2012) Crosstalk between corticotrophin-releasing factor (CRF) and adenosine A2A receptors in neuroprotection against glutamate induced cell death. *J Neurochem*. 123:1030-40.

Diógenes MJ, Dias RB, Rombo DM, Miranda HV, Maiolino F, Guerreiro P, Nasstrom T, Franquelim HG, Oliveira LM, Castanho MARB, Lannfelt L, Bergstrom J, Ingelsson M, Quintas A, Sebastião AM, Lopes LV, Outeiro TF (2012) Extracellular alpha-synuclein oligomers modulate synaptic transmission and impair LTP via NMDA-receptor activation. *J Neurosci*. 32.11750-62.

Diógenes MJ, Neves-Tomé R, Fucile S, Martinello K, Scianni M, Theofilas P, Lopatář J, Ribeiro JA, Maggi L, Frenguelli BG, Limatola C, Boison D, Sebastião AM (2014) Homeostatic control of synaptic activity by endogenous adenosine is mediated by adenosine kinase. *Cerebral Cortex*. 24:67-80.

Rodrigues TM, Jerónimo-Santos A, Sebastião AM, Diógenes MJ (2014) Adenosine A2A Receptors as novel upstream regulators of BDNF-mediated attenuation of hippocampal Long-Term Depression (LTD). *Neuropharmacology*. 79: 389-398.

Rodrigues TM, Jerónimo-Santos A, Outeiro TF, Sebastião AM, Diógenes MJ (2014) Challenges for Neurotrophic factor-based strategies against Parkinson's disease. *Drugs & Aging*. 31:239-261.

Jerónimo-Santos A, Batalha VL, Müller CE, Baqi Y, Sebastião AM, Lopes LV, Diógenes MJ. (2014) Impact of in vivo chronic blockade of adenosine A2A receptors on the BDNF-mediated facilitation of LTP. *Neuropharmacology*. 83: 99-106.

Jerónimo-Santos A, Vaz SH, Parreira S, Rapaz-Lérias S, Caetano AP, Bueé-Scherrer V, Castrén E, Valente CA, Blum D, Sebastião AM, Diógenes MJ (2015). Dysregulation of TrkB receptors and BDNF function by amyloid- β peptide is mediated by calpain. *Cerebral Cortex*, 25:3107-3121.

Jerónimo-Santos A, Fonseca-Gomes J; Guimarães DA, Tanqueiro SR, Ramalho RM, Ribeiro JA, Sebastião AM, Diógenes MJ (2015). Brain-Derived Neurotrophic Factor mediates neuroprotection against A β -induced toxicity through a mechanism independent on adenosine 2A receptor activation. *Growth factors*, 33:298-308.

Vaz SH, Lérias SR, Parreira S, Diógenes MJ, Sebastião AM (2015) Adenosine A2A receptor activation is determinant for BDNF actions upon GABA and glutamate release from rat hippocampal synaptosomes. *Purinergic Signal*. 11:607-12.

Ribeiro FF, Xapelli S, Miranda-Lourenço C, Tanqueiro SR, Fonseca-Gomes J, Diógenes MJ, Ribeiro JA, Sebastião AM (2015) Purine nucleosides in neuroregeneration and neuroprotection. *Neuropharmacology*. 2015 Nov 11. pii: S0028-3908(15)30170-2. doi: 10.1016/j.neuropharm.2015.11.006. [Epub ahead of print]

Diógenes MJ, Ribeiro JA, Sebastião AM (2015) Adenosine A2A Receptors and Neurotrophic Factors: Relevance for Parkinson's Disease. In: *The Adenosinergic System Volume 10 of the series Current Topics in Neurotoxicity* pp 57-79 (Morelli M, Simola N, Wardas J, ed), Springer International Publishing Switzerland, pp57-79.

Duarte S, Palminha C, Sebastião AM, Diógenes MJ (2015) Adenosine Receptors as new therapeutic targets in Rett Syndrome. *Abst Eur J Paediatric Neurol* P197-3009.

Moreira A, Diógenes MJ, de Mendonça A, Lunet N, Barros H (2016). Chocolate Consumption is Associated with a Lower Risk of Cognitive Decline. *J Alzheimer's Dis* 53: 85-93

Sandau U, Colino-Oliveira M, Jones A, Coffman S, Liu S, Miranda-Lourenço C, Palminha C, Batalha V, Xu Y, Huo Y, Diógenes MJ, Sebastião AM, and Boison D (2016) Adenosine kinase deficiency in the brain results in maladaptive synaptic plasticity. *J Neurosci*. 36(48):12117-12128.

Pinho J, Vale R, Batalha VL, Costenla AR, Dias R, Rombo D, Sebastião AM, de Mendonça A, Diógenes MJ (2017) Enhanced LTP in aged rats: Detrimental or compensatory? *Neuropharmacol*. 114:12-19

Sara R Tanqueiro, Rita M Ramalho, Tiago M Rodrigues, Luísa V Lopes, Ana M Sebastião and Maria J Diógenes (2018) Inhibition of NMDA Receptors Prevents the Loss of BDNF Function Induced by Amyloid β . *Frontiers Pharmacol* 11: 9-237

Fonseca-Gomes J, Jerónimo-Santos A, Lesnikova A, Casarotto P, Castrén E, Sebastião AM, Diógenes MJ. TrkB-ICD Fragment, Originating From BDNF Receptor Cleavage, Is Translocated to Cell Nucleus and Phosphorylates Nuclear and Axonal Proteins. *Front Mol Neurosci*. 2019 Feb 1;12:4.

Ruffolo G, Cifelli P, Miranda-Lourenço C, De Felice E, Limatola C, Sebastião AM, Diógenes MJ, Aronica E, Palma E. Rare Diseases of Neurodevelopment: Maintain the Mystery or Use a Dazzling Tool for Investigation? The Case of Rett Syndrome. *Neuroscience*. 2020 Jul 15;439:146-152.

Mouro FM, Miranda-Lourenço C, Sebastião AM, Diógenes MJ (2019) From Cannabinoids and Neurosteroids to Statins and the Ketogenic Diet: New Therapeutic Avenues in Rett Syndrome? *Front Neurosci*. Jul 2;13:680.

Marcelino H, Nogueira VC, Santos CRA, Quelhas P, Carvalho TMA, Fonseca-Gomes J, Tomás J, Diógenes MJ, Sebastião AM, Cascalheira JF (2019) Adenosine inhibits human astrocyte proliferation independently of adenosine receptor activation. *J Neurochem.* Dec 7:e14937.

Xapelli, S; Diógenes, MJ; Crunelli, V; Fitzsimons, CP; Vaz, SH (2020) Editorial: Glial and Neural Stem Cells as New Therapeutic Targets for Neurodegenerative Disorders. *Front Cell Neurosci.* Apr 3;14:71

Sá de Almeida, J; Vargas, M; Fonseca-Gomes, J; Tanqueiro, SR; Belo, RF; Miranda-Lourenço, C; Sebastião, AM; Diógenes, MJ*; Pais, TF*. (2020) Microglial Sirtuin 2 Shapes Long-Term Potentiation in Hippocampal Slices". *Front Neurosci.* Jun 18;14:614. *Equal contribution

Belo RF, Martins MLF, Shvachiy L, Costa-Coelho T, de Almeida-Borlido C, Fonseca-Gomes J, Neves V, Vicente Miranda H, Outeiro TF, Coelho JE, Xapelli S, Valente CA, Heras M, Bardaji E, Castanho MARB*, Diógenes MJ*, Sebastião AM*. (2020) The Neuroprotective Action of Amidated Kyotorphin on Amyloid β Peptide-Induced Alzheimer's Disease Pathophysiology". *Front Pharmacol.* Jul 9;11:985. *Equal contribution

Rodrigues, RS; Paulo, SL; Moreira, JB; Tanqueiro, SR; Sebastião, AM; Diógenes, MJ; Xapelli, S. (2020) Adult Neural Stem Cells as Promising Targets in Psychiatric Disorders". *Stem Cells Dev.* Sep 1;29(17):1099-1117.

Lourenço, DM; Ribeiro-Rodrigues, L; Sebastião, AM; Diógenes, MJ; Xapelli, S. "Neural Stem Cells and Cannabinoids in the Spotlight as Potential Therapy for Epilepsy". *Int J Mol Sci.* 2020 Oct 3;21(19):7309.

Miranda-Lourenço, C; Duarte, ST; Palminha, C; Gaspar, C; Rodrigues, TM; Magalhães-Cardoso, T; Rei, N; Diógenes MJ. (2020) Impairment of adenosinergic system in Rett syndrome: Novel therapeutic target to boost BDNF signalling. *Neurobiol Dis.* Nov;145:105043.

Fonseca-Gomes, J; Loureiro, JA; Tanqueiro, SR; Mouro, FM; Ruivo, P; Carvalho, T; Sebastião, AM; Diógenes, MJ*; Pereira, MC*. (2020) In vivo Bio-Distribution and Toxicity Evaluation of Polymeric and LipidBased Nanoparticles: A Potential Approach for Chronic Diseases Treatment. *Int J Nanomedicine.* Nov 5;15:8609-8621.*Equal contribution.

Miranda-Lourenço, C*; Ribeiro-Rodrigues, L*; Fonseca-Gomes, J*; Tanqueiro, SR*; Belo, RF*; Ferreira, CB; Rei, N; Diógenes MJ. (2020) Challenges of BDNF-based therapies: From common to rare diseases". *Pharmacological Research* 162 (2020):105281. *Equal contribution. *Pharmacol Res.* Dec;162:105281

do Vale, FM; Diógenes, MJ; Barbacena, HA. (2021) Controversies about the cardiovascular effects of OM3FA. Did inappropriate placebos skew clinical trial results? *Pharmacol Res.* Feb;164:105368.

Tanqueiro SR, Mouro FM, Ferreira CB, Freitas CF, Fonseca-Gomes J, Simões do Couto F, Sebastião AM, Dawson N, Diógenes MJ. Sustained NMDA receptor hypofunction impairs brain-derived neurotropic factor signalling in the PFC, but not in the hippocampus, and disturbs PFC-dependent cognition in mice. *J Psychopharmacol.* 2021 Jun;35(6):730-743.

Paulo SL, Ribeiro-Rodrigues L, Rodrigues RS, Mateus JM, Fonseca-Gomes J, Soares R, Diógenes MJ, Solá S, Sebastião AM, Ribeiro FF, Xapelli S. Sustained Hippocampal Neural Plasticity Questions the Reproducibility of an Amyloid- β -Induced Alzheimer's Disease Model. *J Alzheimers Dis.* 2021;82(3): 1183-1202.

Diógenes MJ, Guimas Almeida C, Xapelli S. Editorial: Meeting of the Portuguese Society for Neurosciences SPN2019. *Front Mol Neurosci.* 2021 Oct 7;14:753500

Paulo SL, Miranda-Lourenço C, Belo RF, Rodrigues RS, Fonseca-Gomes J, Tanqueiro SR, Geraldes V, Rocha I, Sebastião AM, Xapelli S, Diógenes MJ. High Caloric Diet Induces Memory Impairment and Disrupts Synaptic Plasticity in Aged Rats. *Curr Issues Mol Biol.* 2021 Dec 18;43(3):2305-2319.

Ferreira CB, Marttinen M, Coelho JE, Paldanius KMA, Takalo M, Mäkinen P, Leppänen L, Miranda-Lourenço C, Fonseca-Gomes J, Tanqueiro SR, Vaz SH, Belo RF, Sebastião AM, Leinonen V, Soininen H, Pike I, Haapasalo A, Lopes LV, de Mendonça A, Diógenes MJ*, Hiltunen M*. S327 phosphorylation of the presynaptic protein SEPTIN5 increases in the early stages of neurofibrillary pathology and alters the functionality of SEPTIN5. *Neurobiol Dis.* 2022 Feb;163:105603. * equal contribution
