

Research grants – since 2001

CNPq: Study of behavioural and neurochemical alterations in rats treated with intranigral injection of MPTP – an animal model of parkinsonism. (PI) U\$ 40,000, 1998-2004.

CNPq: Effect of caffeine and other adenosine receptor antagonists in the reversal of experimental parkinsonism (PI). U\$ 6,500, 2003-2005

Fundação Araucária de Apoio ao Desenvolvimento Científico e Tecnológico do Paraná: Effect of caffeine on animal models of cognitive and motor disabilities related to Parkinson's disease (PI). U\$ 7,000, 2005-2006.

CNPq: Anatomic-functional study of the rat substantia nigra pars compacta (PI). U\$ 16,500. 2005-2006.

CNPq: Screening of biogenic amines from a metagenomic bank of Paraná Atlantic Forest, co-applicant / PI: Dr. Fabio Pedrosa. U\$ 600,000.00, 2006-2009

FAPESP: Neural basis of motivated behaviors, co-applicant / PI: Dr. Newton Canteras. U\$ 300,000.00, 2007-2009.

PRONEX- CNPq: Screening of biogenic amines from a metagenomic bank of Paraná Atlantic Forest, , co-applicant / PI: Emanuel M. Souza. U\$ 300,000.00, 2009-2011.

CNPq: The role of striatal dopamine in the learning of aversively motivated tasks. (PI) U\$ 20,000, 2011-2012.

Fundação Araucária: Instantaneous recording of extracellular dopamine oxidation in a rat model of Parkinson's disease. (PI) U\$ 23,000, 2011-2012.

FINEP/CT-INFRA and CAPES/PRO-EQUIPAMENTOS: Institutional funding for or starting or improving my group research laboratories with equipments for histology (criostat, fluorescence microscope), electrophysiology and electrochemistry (Plexon and Edaq electrochemistry set-ups, stimulator, stereotaxics and other surgery equipments), neurochemistry (capillary electrophoresis), and behavioral phenotyping (Med Associates and Noldus setups). U\$ 750,000, 2011-2013.

CNPq: The role of the dopaminergic pathways in the selection of motor actions with aversive outcomes (PI). U\$ 65,000, 2013-2014.

The role of striatal dopamine in the learning of aversively motivated tasks. (PI) U\$ 20,000, 2013-2014.

CNPq, CAPES, and REUNI grants actually covers the salaries/scholarships of 3 Ph.D. students, 2 Master students and 1 graduated students that work under my supervision. U\$ 215,000, 2011-2014.

Teaching and conferences

- 1992/present - Teaches general pharmacology and neuropsychopharmacology to odontology, medicine and pharmacy undergraduated students; Teaches neurobiology of learning and memory and neurochemistry to students of the Ph
- 1992/present - Supervised 11 Master students and 8 Ph.D. students of the Programs of Pharmacology and Biochemistry at the Universidade Federal do Paraná. Currently other 3 Ph.D. students, 1 Master student, and a post-doc are under his supervision.
- 1992/present - Presented several lectures on learning and memory at universities seminars, meetings and scientific congresses such as the Annual Meetings of the Brazilian Federation of Experimental Biology Societies (FESBE), IBRO Latin American Neuroschool (Uruguay, Brazil), European Brain and Behaviour Society (EBBS), International Behavioural Neuroscience Society (IBNS), University of St. Andrews (Scotland), Universidad Autonoma de Barcelona (Spain), University of Arizona (Tucson), Georgia Medical School, Universidad Nacional Autonoma de México (Ciudad de México, Querétaro), among others.

Student Supervision:

Nine PhDs in the Biochemistry, Pharmacology and Neuroscience Programs of the Brazilian universities: UFPR, UFRS, UNICAMP, and UFSC
 Eleven MAs in the Pharmacology and Neuroscience Program of UFPR
 Forty four honors students at UFPR

List of publications - original articles, proceedings, reviews, and book chapters

Dombrowski, P., Maia, T. V., Boschen, S. L., Bortolanza, M., Wendler, E., Schwarting, R. K. W., Brandao, M. L., Winn, P., Blaha, C. D. and Da Cunha, C. (2013) Evidence that conditioned avoidance responses are reinforced by positive prediction errors signaled by tonic striatal dopamine. *Behavioural Brain Research* 241:112-119.

Da Cunha, C., Gomes, A. and Blaha, C. D. (2012) The role of the basal ganglia in motivated behavior. *Reviews in Neurosciences* 23:747-767.

Miyoshi, E.; Wietzikoski, E.C.; Bortolanza, M.; Boschen, S.L.; Canteras, N.S.; Izquierdo, I.; Da Cunha, C. (2012) Behavioural Brain Research Volume: 226 171-178. DOI: 10.1016/j.bbr.2011.09.011

Wietzikoski, E. C., Boschen, S. L., Miyoshi, E., Bortolanza, M., Santos, L. M., Frank, M., Brandão, M. L., Winn, P. , Da Cunha, C. (2012) Roles of D1-like dopamine receptors in the nucleus accumbens and dorsolateral striatum in conditioned avoidance response. *Psychopharmacology*, 219, 159-169. DOI: 10.1007/s00213-011-2384-3

Dos Santos, L. M.; Boschen, S. L.; Bortolanza, M.; Oliveira, W. F.; Furigo, I. C.; Mota-Ortiz, S. R.; Da Cunha, c. ; Canteras, N. S. (2012) The role of the ventrolateral caudoputamen in predatory hunting. *Physiology & Behavior*, v.105, p.893-898. DOI: 10.1016/j.physbeh.2011.10.021

Moreira, C. G.; Barbiero, J. K.; Ariza, D.; Dombrowski, P. A.; Sabioni, P.; Bortolanza, M.; Da Cunha, C.; Vital, M. ; Lima, M. M. S. (2012). Behavioral, neurochemical and histological alterations promoted by bilateral intranigral rotenone administration: A new approach for an old neurotoxin. *Neurotoxicity Research*, 21, 291-301. DOI: 10.1007/s12640-011-9278-3

Dombrowski PA, Boschen SL, Bortolanza M, Wendler E, Schwarting RKW, Brandão ML, Winn P, Da Cunha C. (2012) Dopamine is released in the striatum to promote aversive conditioning. *Behavioural Brain Research*, submitted.

Da Cunha C Boschen SL (2012) Transtornos dos nucleos da base. In: Graeff F and Brandao, ML.: *Neurobiologia da Doencas mentais*. Sao Paulo: Lemos Editora., in press.

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Slomp, H., Seniski, G., Da Cunha, C., Audi, E. A. , Andreatini, R. (2011) The combination of passiflora alata and valeriana officinalis on memory tasks in mice: Comparison with diazepam. *Brazilian Archives of Biology and Technology*, 531343-1350. DOI: 10.1590/S1516-89132010000600010

Pereira, M., Dombrowski, P. A., Losso, E. M., Chioca, L. R., Da Cunha, C. , Andreatini, R. (2011) Memory impairment induced by sodium fluoride is associated with changes in brain monoamine levels. *Neurotoxicity Research*, 19, p.55-62. DOI: 10.1007/s12640-009-9139-5

Oliveira, S. M., Drewes, C. C., Silva, C. R., Trevisan, G., Boschen, S. L., Moreira, C. G., Cabrini, D. D., Da Cunha, C. , Ferreira, J. (2011) Involvement of mast cells in a mouse model of postoperative pain. *European Journal of Pharmacology*, 672, p.88-95. DOI: 10.1016/j.ejphar.2011.10.001

Bortolanza M, Wietzikoski EC, Boschen SL, Dombrowski PA, Latimer M, MacLaren DAA, Winn P, Da Cunha C. (2010) Functional disconnection of the substantia nigra pars compacta from the pedunculo-pontine nucleus impairs learning of a conditioned avoidance task. *Neurobiology of Learning and Memory*. 94, 229-239. DOI: 10.1016/j.nlm.2010.05.011

Dombrowski PA, Carvalho MC, Miyoshi E, Correia D, Bortolanza MS, Wietzikoski EC, Eckart ET, Schwarting RK, Brandao ML, Da Cunha C (2010) Microdialysis study of striatal dopamine in MPTP-hemilesioned rats challenged with apomorphine and amphetamine. *Behav Brain Res*. 215, 63-70. DOI: 10.1016/j.bbr.2010.06.028

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Noteworthy Publications:

Da Cunha C, Wietzikoski EC; Dombrowski P; Santos LM; Bortolanza M; Boschen SL; Miyoshi E. (2009). Learning processing in the basal ganglia: A mosaic of broken mirrors. *Behav Brain Res.*, 199: 157-170. DOI:10.1016/j.bbr.2008.10.001

Miyoshi, E; Wietzikoski, S; Camplessei, M; Silveira, R; Takahashi, RN; Da Cunha, C. 2002. Impaired learning in a spatial working memory version and in a cued version of the water maze in rats with MPTP-induced mesencephalic dopaminergic lesions. *Brain Res. bull.* 58 (1): 41-47. DOI: 10.1016/S0361-9230(02)00754-2

Miyoshi, E.; Wietzikoski, E.C.; Bortolanza, M.; Boschen, S.L.; Canteras, N.S.; Izquierdo, I.; Da Cunha, C. (2012). *Behavioural Brain Research* Volume: 226 171-178. DOI: 10.1016/j.bbr.2011.09.011

Bortolanza M, Wietzikoski EC, Boschen SL, Dombrowski PA, Latimer M, MacLaren DAA, Winn P, Da Cunha C. (2010). Functional disconnection of the substantia nigra pars compacta from the pedunculopontine nucleus impairs learning of a conditioned avoidance task. *Neurobiology of Learning and Memory.* 94, 229-239. DOI: 10.1016/j.nlm.2010.05.011

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Citation Statistics

March 2011: ISI Web of Knowledge, search parameters AUTHOR "Da Cunha C OR Cunha C OR DaCunha C"; ADDRESS "Curitiba" OR Porto Alegre"; excluding abstracts and refined to eliminate papers not mine.

Number of articles	h-index	Total	Mean
72 (original articles proceedings and reviews)	22	1604	21