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## Employment

### Postdoctoral Researcher

Neuroscience Center  
University of Helsinki  
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1 May 2014 → present

## Research output

### Activation of the TRKB receptor mediates the panicolytic-like effect of the NOS inhibitor aminoguanidine

Ribeiro, D. E., Casarotto, P. C., Júnior, A. S., Fernandes, G. G., Pinheiro, L. C., dos Santos, J. E. T., Júnior, H. Z., Guimarães, F. S., Joca, S. R. L. & Biojone, C., 13 Apr 2019, In : Progress in Neuro-Psychopharmacology & Biological Psychiatry.

### Dual mechanism of TRKB activation by anandamide through CB1 and TRPV1 receptors

Diniz, C. R. A. F., Biojone, C., Joca, S. R. L., Rantamäki, T., Castren, E., Guimaraes, F. S. & Casarotto, P. C., 21 Feb 2019, In : PeerJ. 7, 21 p., 6493.

### TrkB-ICD Fragment, Originating From BDNF Receptor Cleavage, Is Translocated to Cell Nucleus and Phosphorylates Nuclear and Axonal Proteins

Fonseca-Gomes, J., Jerónimo-Santos, A., Lesnikova, A., Casarotto, P., Castrén, E., Sebastião, A. M. & Diógenes, M. J., 1 Feb 2019, In : Frontiers in Molecular Neuroscience. 12

### Elastase-2 Knockout Mice Display Anxiogenic- and Antidepressant-Like Phenotype: Putative Role for BDNF Metabolism in Prefrontal Cortex

Diniz, C. R. A. F., Becari, C., Lesnikova, A., Biojone, C., Salgado, M. C. O., Salgado, H. C., Resstel, L. B. M., Guimaraes, F. S., Castren, E., Casarotto, P. C. & Joca, S. R. L., Aug 2018, In : Molecular Neurobiology. 55, 8, p. 7062-7071 10 p.

### Antidepressant-like effect of losartan involves TRKB transactivation from angiotensin receptor type 2 (AGTR2) and recruitment of FYN

Diniz, C. R. A. F., Casarotto, P. C., Fred, S. M., Biojone, C., Castrén, E. & Joca, S. R. L., Jun 2018, In : Neuropharmacology. 135, p. 163-171 9 p.

### Longitudinal two-photon imaging in somatosensory cortex of behaving mice reveals dendritic spine formation enhancement by subchronic administration of low-dose ketamine

Pryazhnikov, E., Mugantseva, E., Casarotto, P., Kolkova, J., Fred, S. M., Toptunov, D., Afzalov, R., Hotulainen, P., Voikar, V., Terry-Lorenzo, R., Engel, S., Kirov, S., Castren, E. & Khiroug, L., 24 Apr 2018, In : Scientific Reports. 8, 12 p., 6464.

### Inducible nitric oxide synthase (NOS2) knockout mice as a model of trichotillomania

Casarotto, P. C., Biojone, C., Montezuma, K., Cunha, F. Q., Joca, S. R. L., Castren, E. & Guimaraes, F. S., 17 Apr 2018, In : PeerJ. 6, p. e4635 13 p., 4635.

### Beyond good and evil: a putative continuum-sorting hypothesis for the functional role of proBDNF/BDNF-propeptide/mBDNF in antidepressant treatment

Diniz, C. R. A. F., Casarotto, P. C., Resstel, L. & Samia, R. L. J., 2018, In : *Neuroscience & Biobehavioral Reviews*. 90, p. 70-83 14 p.

**Isoflurane produces antidepressant effects and induces TrkB signaling in rodents**

Antila, H., Ryazantseva, M., Popova, D., Sipilä, P., Guirado, R., Kohtala, S., Yalcin, I., Lindholm, J., Vesa, L., Sato, V., Cordeira, J., Autio, H., Kislin, M., Rios, M., Joca, S., Casarotto, P., Khiroug, L., Lauri, S., Taira, T., Castren, E. & 1 others Rantamäki, T., 10 Aug 2017, In : *Scientific Reports*. 7, 12 p., 7811.

**Monoamine involvement in the antidepressant-like effect induced by P2 blockade**

Diniz, C. R. A. F., Rodrigues, M., Casarotto, P. C., Pereira, V. S., Crestani, C. C. & Joca, S. R. L., 2017, In : *Brain Research*. 1676, p. 19-27 9 p.

**NMDA-NO signaling in the dorsal and ventral hippocampus time-dependently modulates the behavioral responses to forced swimming stress**

Diniz, C. R. A. F., Casarotto, P. & Joca, S. R. L., 1 Jul 2016, In : *Behavioural Brain Research*. 307, p. 126-136 11 p.

**BDNF-TRKB signaling system of the dorsal periaqueductal gray matter is implicated in the panicolytic-like effect of antidepressant drugs**

Casarotto, P. C., dos Santos, P. C., Lucas, G. A., Biojone, C., Pobbe, R. L. H., Vilela-Costa, H. H., Joca, S. R. L., Guimaraes, F. S. & Zangrossi, H., Jun 2015, In : *European Neuropsychopharmacology*. 25, 6, p. 913-922 10 p.

**Cannabinoids and compulsive-obsessive disorder**

Casarotto, P. C., Gomes, F. V. & Guimarães, F. S., 2015, *Cannabinoids in Neurologic and Mental Disease*. Fattore, L. (ed.). Elsevier Scientific Publ. Co, p. 365-387 23 p.

**Interplay Between Nitric Oxide and Brain-Derived Neurotrophic Factor in Neuronal Plasticity**

Biojone, C., Casarotto, P. C., Joca, S. R. & Castren, E., 2015, In : *CNS & Neurological Disorders*. 14, 8, p. 979-987 9 p.

**Cannabidiol reverses the mCPP-induced increase in marble-burying behavior**

Nardo, M., Casarotto, P. C., Gomes, F. V. & Guimaraes, F. S., Oct 2014, In : *Fundamental & Clinical Pharmacology*. 28, 5, p. 544-550 7 p.

**Antidepressant- and anticomulsive-like effects of purinergic receptor blockade: Involvement of nitric oxide**

Pereira, V. S., Casarotto, P. C., Hiroaki-Sato, V. A., Sartim, A. G., Guimaraes, F. S. & Joca, S. R. L., Dec 2013, In : *European Neuropsychopharmacology*. 23, 12, p. 1769-1778 10 p.

**The antimanic-like effect of phenytoin and carbamazepine on methylphenidate-induced hyperlocomotion: role of voltage-gated sodium channels**

Tonelli, D. A. G., Pereira, M., Siba, I. P., Martynhak, B. J., Correia, D., Casarotto, P. C., Biojone, C., Guimaraes, F. S., Joca, S. L. R. & Andreatini, R., 2013, In : *Fundamental & Clinical Pharmacology*. 27, 6, p. 650-655 6 p.

**BDNF-TrkB signaling is involved in the antidepressant-like effect induced by genetic deletion of iNOS**

Joca, S., Biojone, C., Casarotto, P., Montezuma, K., Cunha, F. & Guimaraes, F., Jun 2012, In : *International Journal of Neuropsychopharmacology*. 15, p. 44-45 2 p.

**Fine-tuning of defensive behaviors in the dorsal periaqueductal gray by atypical neurotransmitters**

Fogaca, M. V., Lisboa, S. F., Aguiar, D. C., Moreira, F. A., Gomes, F. V., Casarotto, P. C. & Guimaraes, F. S., Apr 2012, In : *Brazilian Journal of Medical and Biological Research*. 45, 4, p. 357-365 9 p.

**Intrahippocampal injection of brain-derived neurotrophic factor increases anxiety-related, but not panic-related defensive responses: involvement of serotonin**

Casarotto, P. C., de Bortoli, V. C. & Zangrossi, H., Feb 2012, In : *Behavioural Pharmacology*. 23, 1, p. 80-88 9 p.

**Opposing Roles for Cannabinoid Receptor Type-1 (CB1) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats**

Casarotto, P. C., Terzian, A. L. B., Aguiar, D. C., Zangrossi, H., Guimaraes, F. S., Wotjak, C. T. & Moreira, F. A., Jan 2012, In : *Neuropsychopharmacology*. 37, 2, p. 478-486 9 p.

**Antidepressant-like effects of DNA methylation inhibition in hippocampus: participation of brain derived neurotrophic factor**  
Biojone, C., Sales, A. J., Terceti, M. S., Casarotto, P. C., Guimaraes, F. S., Gomes, M. V. M. & Joca, S. R. L., Sep 2011, In : *European Neuropsychopharmacology*. 21, p. S412-S412 1 p.

**Participation of the NMDA-NO-sGC pathway of the ventral hippocampus in the modulation of depressive-like behaviour in rats**  
Diniz, C., Joca, S. & Casarotto, P., Sep 2011, In : *European Neuropsychopharmacology*. 21, p. S403-S404 2 p.

**Purinergic receptor blockade induces antidepressant- and anticomulsive-like effects**  
Casarotto, P. C., Pereira, V. S., Sato, V. A. H., Sartim, A. G., Guimaraes, F. S. & Joca, S. R. L., Sep 2011, In : *European Neuropsychopharmacology*. 21, p. S255-S255 1 p.

**Anti-aversive effects of the atypical antipsychotic, aripiprazole, in animal models of anxiety**  
Biojone, C., Casarotto, P. C., Resstel, L. B., Zangrossi, H., Guimaraes, F. S. & Moreira, F. A., Jun 2011, In : *Journal of Psychopharmacology*. 25, 6, p. 801-807 7 p.

**Facilitation of CB1 receptor-mediated neurotransmission decreases marble burying behavior in mice**  
Gomes, F. V., Casarotto, P. C., Resstel, L. B. M. & Guimaraes, F. S., 30 Mar 2011, In : *Progress in Neuro-Psychopharmacology & Biological Psychiatry*. 35, 2, p. 434-438 5 p.

**CB1 and TRPV1 receptors located in periaqueductal gray matter mediate opposite effects in panic-like responses in rats**  
Terzian, A. L., Casarotto, P., Aguiar, D. C., Zangrossi, H., Guimaraes, F. S., Wotjak, C. T. & Moreira, F. A., Mar 2011, In : *European Neuropsychopharmacology*. 21, p. S37-S37 1 p.

**Cannabidiol inhibitory effect on marble-burying behaviour: involvement of CB1 receptors**  
Casarotto, P. C., Gomes, F. V., Resstel, L. B. M. & Guimaraes, F. S., Jul 2010, In : *Behavioural Pharmacology*. 21, 4, p. 353-358 6 p.

**Panicolytic-like effect of BDNF in the rat dorsal periaqueductal grey matter: the role of 5-HT and GABA**  
Casarotto, P. C., de Bortoli, V. C., de Aguiar Correa, F. M., Moraes Resstel, L. B. & Zangrossi, H., Jun 2010, In : *International Journal of Neuropsychopharmacology*. 13, 5, p. 573-582 10 p.

**BDNF injection in the rat dorsal hippocampus causes anxiogenic-like effect through the facilitation of 5-HT<sub>1A</sub>-mediated neurotransmission**  
Zangrossi, H., Casarotto, P. & de Bortoli, V., 2010, In : *International Journal of Neuropsychopharmacology*. 13, p. 119-120 2 p.

**Effects of imipramine repeated treatment on BDNF levels in the dorsal periaqueductal gray matter and hippocampus**  
Casarotto, P. C., Joca, S. R. L., Guimaraes, F. S. & Zangrossi, H. J., Aug 2008, In : *European Neuropsychopharmacology*. 18, p. S487-S488 2 p.

**Repeated paroxetine treatment reverses anhedonia induced in rats by chronic mild stress or dexamethasone**  
Casarotto, P. C. & Andreatini, R., Nov 2007, In : *European Neuropsychopharmacology*. 17, 11, p. 735-742 8 p.

**Dexamethasone-induced anhedonia: antidepressant reversion, hippocampal BDNF level, and role of glucocorticoids receptors**  
Andreatini, R., Casarotto, P. C. & Zanata, S. M., Oct 2007, In : *European Neuropsychopharmacology*. 17, p. S362-S362 1 p.

## Activities

**Aarhus University**

Plinio Casarotto (Visiting researcher)

31 Aug 2015 → 7 Sep 2015

**School of Pharmaceutical Sciences, University of Sao Paulo**

Plinio Casarotto (Visiting researcher)

1 Sep 2014 → 15 Oct 2014