

Publications Prof. Riccardo Brambilla

A. Patents

- 1) Indrigo, M., Papale, A. Fasano, S., Brambilla, R. (2018) Cardiff University, Patent application: NEUROPROTECTIVE PEPTIDE - PCT/GB2018/053384
- 2) A. Papale, I. Morella. S. Fasano and R. Brambilla. Therapeutic for treating neuropsychiatric disorders or conditions (GB1606811.6, 19th Apr 2016)
- 3) A. Papale, S. Fasano and R. Brambilla. Peptides for the Treatment of Brain Diseases (WO2012016963, 9 Feb 2012)

B. Key bibliometric figures (Scopus)

(5th September 2021, Scopus)
Publications (only peer reviewed papers): 77
Years: 1988-2021 (34 years)
Total number of citations: 5291
Mean citation per publication: 69
Papers cited > 100 times: 16/77(21%)
H index: 35

C. Selected Publications

Ilaria Morella, Harriet Hallum and **Riccardo Brambilla**. Dopamine D1 and glutamate receptors co-operate with Brain derived Neurotrophic Factor (BDNF) and TrkB to modulate ERK signalling in adult striatal slices". *Frontiers in Cellular Neuroscience* (2020). DOI: 10.3389/fncel.2020.564106.

Impact Factor: 3.921

Bernardi RE, Olevska A, Morella I, Fasano S, Santos E, **Brambilla R**, Spanagel R. The inhibition of RasGRF2, but not RasGRF1, alters cocaine reward in mice. *J Neurosci*. 2019 Jun 10. pii: 1120-18. doi: 10.1523/JNEUROSCI.1120-18.2019.

Impact Factor: 6.074

Lorenzo Morè, Julie C. Lauterborn, Francesco Papaleo and **Riccardo Brambilla**. Enhancing Cognition through Pharmacological and Environmental Interventions: Examples from Preclinical Models of Neurodevelopmental Disorders. *Neuroscience and Biobehavioral Reviews* (Invited Review). *Neurosci Biobehav Rev*. 2019 Apr 10. pii: S0149-7634(18)30292-6. doi: 10.1016/j.neubiorev.2019.02.003.

Impact Factor: 8.037

T.G. McWilliams, E. Barini, R. Pohjolan-Pirhonen, S.P. Brooks, F. Singh, S. Burel, K. Balk, A. Kumar, L. Montava-Garriga, A.R. Prescott, S. M. Hassoun, F. Mouton-Liger, G. Ball, R. Hills, A. Knebel, A. Ulusoy, D.A. Di Monte, J. Tamjar, O. Antico, K. Fears, L. Smith, **R. Brambilla**, E. Palin, M. Valori, J. Eerola-Rautio, P. Tienari, O. Corti, S.B. Dunnett, I.G. Ganley, A. Suomalainen, M.M.K. Muqit. Phosphorylation of Parkin at Serine65 is essential for its activation in vivo. *Open Biol*. 8: 180108. <http://dx.doi.org/10.1098/rsob.180108>

Impact Factor: 3.286

I. Ruiz De Diego, S. Fasano, O. Solís, JR Garcia-Montes, J.M. Brea, M.I. Loza, **R. Brambilla** and R. Moratalla. Genetic enhancement of Ras-ERK pathway does not aggravate L-DOPA-induced dyskinesia in mice but prevents the decrease induced by lovastatin. *Scientific Report*. (2018) 8:15381. DOI:10.1038/s41598-018-33713-3. **Impact Factor: 4.122**

Marzia Indrigo, Ilaria Morella, Daniel Orellana, Raffaele d'Isa, Alessandro Papale, Riccardo Parra, Antonia Gurgone, Daniela Lecca, Anna Cavaccini, Cezar M Tigaret, Gian Michele Ratto, Anna R Carta, Maurizio Giustetto, Silvia Middei, Raffaella Tonini, Jeremy Hall, Simon Brooks, Kerrie Thomas, **Riccardo Brambilla** and Stefania

Fasano. Modulation of ERK1/MAPK3 potentiates ERK nuclear signalling, facilitates neuronal cell survival and improves memory in mouse models of neurodegenerative disorders. *bioRxiv* (2018). doi: <https://doi.org/10.1101/496141>

J. Pucilowska, J. Vithayathil, M. Pagani, C. Kelly, J. C. Karlo, C. Robol, I. Morella, A. Gozzi, **R. Brambilla** and G.E. Landreth. Pharmacological inhibition of the ERK Signaling Pathway Rescues Cellular and Behavioural impairments associated with 16p11.2 Chromosomal Deletion in Mice. *J Neurosci*. 2018 Jun 22. pii: 0515-17. doi: 10.1523/JNEUROSCI.0515-17.2018.

Impact Factor: 5.988

Arcuri L, Novello S, Frassinetti M, Mercatelli D, Pisanò CA, Morella I, Fasano S, Journigan BV, Meyer ME, Polgar WE, **Brambilla R**, Zaveri NT, Morari M. Antiparkinsonian and antidyskinetic profiles of two novel potent and selective nociceptin/orphanin FQ receptor agonists. *Br J Pharmacol*. 2017 Dec 12. doi: 10.1111/bph.14123.

Impact Factor: 5.491

Valentina Iori Anand M. Iyer, Teresa Ravizza, Luca Beltrame, Lara Paracchini, Sergio Marchini, Milica Cerovic, Cameron Hill, Mariella Ferrari, Massimo Zucchetti, Monica Molteni, Carlo Rossetti, **Riccardo Brambilla**, H. Steve White, Maurizio D'Incalci, Eleonora Aronica, Annamaria Vezzani. Blockade of the IL-1R1/TLR4 pathway mediates disease-modification therapeutic effects in a model of acquired epilepsy. *Neurobiology of Disease* 99 (2017) 12–23. doi: 10.1016/j.nbd.2016.12.007.

Impact Factor: 5.624

Papale A, d'Isa R, Menna E, Solari S, Cerovic M, Fasano S, Cambiaghi M, Corsi M, Barbacid M, Leocani L, Matteoli M, and **Brambilla R**. Severe intellectual disability and enhanced GABAergic synaptogenesis in a novel model of rare RASopathies. *Biol Psych* (2017). doi: 10.1016/j.biopsych.2016.06.016

Impact Factor: 11.412

Papale A, Morella IM, Indrigo MT, Bernardi RE, Spanagel R, **Brambilla R***, and Fasano S*. Impairment of cocaine-mediated behaviors by clinically relevant Ras-ERK inhibitors. *eLife* 2016;5:e17111. DOI: 10.7554/eLife.17111. * **Co-Corresponding authors**

Impact Factor: 7.725

Trusel M, Cavaccini A, Gritti M, Greco B, Saintot PP, Nazzaro C, Cerovic M, Morella M, **Brambilla R** and Tonini R. Coordinated Regulation of Synaptic Plasticity at Striatopallidal and Striatonigral Neurons Orchestrates Motor Control. *Cell Reports* (2015). <http://dx.doi.org/10.1016/j.celrep.2015.10.009>.

Impact Factor: 8.358

Cerovic M, Bagetta V, Pendolino V, Ghiglieri V, Fasano S, Morella I, Hardingham N, Heuer A, Papale A, Marchisella F, Giampà C, Calabresi P, Picconi B, **Brambilla R**. Derangement of Ras-Guanine Nucleotide-Releasing Factor 1 (Ras-GRF1) and Extracellular Signal-Regulated Kinase (ERK) Dependent Striatal Plasticity in L-DOPA-Induced Dyskinesia. *Biol Psych* (2015). 10.1016/j.biopsych.2014.04.002.

Impact Factor: 11.412

Bastide MF, Meissner WG, Picconi B, Fasano S, Fernagut PO, Feyder M, Francardo V, Alcacer C, Ding Y, **Brambilla R**, Fisone G, Jon Stoessl A, Bourdenx M, Engeln M, Navailles S, De Deurwaerdère P, Ko WK, Simola N, Morelli M, Groc L, Rodriguez MC, Gurevich EV, Quik M, Morari M, Mellone M, Gardoni F, Tronci E, Guehl D, Tison F, Crossman AR, Kang UJ, Steece-Collier K, Fox S, Carta M, Angela Cenci M, Bézard E. Pathophysiology of L-dopa-induced motor and non-motor complications in Parkinson's disease. (2015). *Prog Neurobiol*. S0301-0082(15)00076-3. doi: 10.1016/j.pneurobio.2015.07.002.

Impact Factor: 10.301

Bido S, **Solari N***, Indrigo M, D'Antoni A, **Brambilla R**, Morari M, Fasano S. Differential involvement of Ras-GRF1 and Ras-GRF2 in L-DOPA-induced dyskinesia. (2015). *Annals of Clinical and Translational Neurology*. doi: 10.1002/acn3.202. * **PhD student supervised by Prof. Brambilla, co-first name.**

Impact Factor: 11.91

Fossati G, Morini R, Corradini I, Antonucci F, Trepte P, Edry E, Sharma V, Papale A, Pozzi D, Defilippi P, Meier JC, **Brambilla R**, Turco E, Rosenblum K, Wanker EE, Ziv NE, Menna E, Matteoli M. Reduced SNAP-25 increases

PSD-95 mobility and impairs spine morphogenesis. Cell Death Differ. 2015 Feb 13. doi: 10.1038/cdd.2014.227.

Impact Factor: 8.385

Nicola Solari*, Alessandra Bonito Oliva, Gilberto Fisone and **Riccardo Brambilla**. Understanding cognitive deficits in Parkinson's disease: lessons from preclinical animal models. *Learn. Mem.* (2013). 20: 592-600. doi:10.1101/lm.032029.113. *PhD student supervised by Prof. Brambilla

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Milica Cerovic, Raffaele d'Isa, Raffaella Tonini and **Riccardo Brambilla**. Molecular and cellular mechanisms of dopamine-mediated behavioral plasticity in the striatum. *Neurobiology of Learning and Memory* 105 (2013) 63–80. doi: 10.1016/j.nlm.2013.06.013.

Impact Factor: 4.035

Steven Millership, Natalia Ninkina, Irina Guschina, Jessica Norton, **Riccardo Brambilla**, Pieter Oort, Sean Adams, Rowena J. Dennis, Peter J. Voshol, Justin J. Rochford and Vladimir L. Buchman. Increased lipolysis and altered lipid homeostasis protect γ -synuclein-null mutant mice from diet-induced obesity. *PNAS* (2012). Doi: 10.1073/pnas.1210022110.

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Matteo Marti, Donata Rodi, Qin Li, Remo Guerrini, Stefania Fasano, **Ilaria Morella***, Alessandro Tozzi, **Riccardo Brambilla**, Paolo Calabresi, Michele Simonato, Erwan Bezard and Michele Morari. Nociceptin/orphanin FQ receptor agonists attenuate L-DOPA-induced dyskinesias. *J Neurosci.* (2012). DOI:10.1523/JNEUROSCI.6408-11.2012. *PhD student supervised by Prof. Brambilla

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Fasano, S., Bezard, E., D'Antoni, A., Indrigo, M., Francardo, V., Qin, L., Dovero, S., Cerovic, P., Cenci M.A. and **Brambilla R.** Inhibition of Ras-GRF1 in the striatum reverts motor symptoms associated to L-DOPA induced Dyskinesia. *PNAS* 107, 21824–21829 (2010). Doi:10.1073/pnas.1012071107

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S. Fasano, A. D'Antoni, P. C. Orban, , E. Valjent, E. Putignano, H. Vara, , T. Pizzorusso, M. Giustetto, Y. Bongjune, M. P. Soloway, R. Maldonado, J. Caboche and **R. Brambilla**. Ras-Guanine Nucleotide-Releasing Factor 1 (Ras-GRF1) Controls Activation of Extracellular Signal-Regulated Kinase (ERK) Signaling in the Striatum and Long-Term Behavioral Responses to Cocaine. *Biol Psychiatry*, 66:758 –768 (2009). Doi:10.1016/j.biopsych.2009.03.014

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C. Vantaggiato, I. Formentini, A. Bondanza, C. Bonini, L. Naldini and **R. Brambilla**. ERK1 and ERK2 mitogen-activated protein kinases affect Ras-dependent cell signaling differentially. *J. Biol. (now BMC Biology)*(2006), 5:14.

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C. Mazzucchelli, C. Vantaggiato, A. Ciamei, S. Fasano, P. Pakhotin, W. Krezel, H. Welzl, D. P. Wolfer, G. Pagès, O. Valverde, A. Marowsky, A. Porrazzo, P.C. Orban, R. Maldonado, M. U. Ehrenguber, V. Cestari, H.-P. Lipp, P. F. Chapman, J. Pouysségur and **R. Brambilla**. Knockout of ERK1 MAP kinase enhances synaptic plasticity in the striatum and facilitates striatal-mediated learning and memory. *Neuron* (2002) **34**, 807-820.

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R. Brambilla, N. Gnesutta, L. Minichiello, G. White, A.J. Roylance, C.E. Herron, M. Ramsay, D.P. Wolfer, V. Cestari, C. Rossi-Arnaud, S.G.N. Grant, P.F. Chapman, H.-P. Lipp, E. Sturani and R. Klein. A role for the Ras signaling pathway in synaptic transmission and long-term memory. *Nature* (1997) **390**, 281-286.

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