



FRANCESCO PAPAEO, Ph.D.

Curriculum Vitae

Date and Place of Birth: November 12, 1977, Scicli (RG), Italy
Nationality: Italian
Languages Spoken: Italian, French, English.
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EDUCATION / WORK EXPERIENCE

February 2014- present: Tenure Track II, Team Leader, Associate Professor level, Neuroscience and Brain Technologies Department, Istituto Italiano di Tecnologia, Genova, Italy.

January 2013- present: Adjunct Faculty Investigator, Lieber Institute for Brain Development. Baltimore, MD, USA.

December 2011- February 2014: Tenured Researcher, Department of Pharmacological Sciences, University of Padova, Italy.

June 2009- February 2014: Team Leader, Neuroscience and Brain Technologies Department, Istituto Italiano di Tecnologia, Genova, Italy.

September 2005- August 2010: Post Doctoral Visiting Fellow, Clinical Brain Disorders Branch, National Institute of Mental Health, NIH, Bethesda, USA. Supervisors: Dr. Daniel R. Weinberger and Dr. Jacqueline N. Crawley.

January 2005- August 2005: “Assistant Associé”, University of Bordeaux 2, France, “Laboratoire Homéostasie-Allostasie-Pathologie” (Dir.: Professor Guy Simonnet). Supervisors: Professor Antoine Tabarin and Dr. Angelo Contarino.

July 2004- December 2004: Researcher, “Laboratoire Homéostasie-Allostasie-Pathologie” (Dir.: Professor Guy Simonnet), University of Bordeaux, France. Supervisors: Professor Antoine Tabarin and Dr. Angelo Contarino.

September 2003- July 2004: Researcher, INSERM Unit 588, “Laboratoire de Physiopathologie du Comportement” (Dir.: Dr. Pier Vincenzo Piazza), Bordeaux, France. Supervisor: Dr. Angelo Contarino.

January 2002- March 2005: PhD Student in Pharmacology and Toxicology, University of Padova, Italy. Thesis title: *Opposite roles for CRF/CRF₁ receptor pathways in somatic and affective components of the opiate withdrawal syndrome.* Supervisor: Dr. Angelo Contarino.

December 2000- November 2001: Pharmacist. S. Chiara pharmacy. Vicenza, Italy. Supervisor: Dr. Paolo Pretto.

October 1996- November 2001: Pharmacy graduate studies (110/110 *cum Laude*), University of Padova, Italy. Thesis title: *Mice deficient for Corticotropin-releasing factor receptor 1 show physical but not affective signs of opiate withdrawal.* Supervisors: Professor Pietro Giusti and Dr. Angelo Contarino.

AWARDS AND HONORS

November 2012: Winter Conference on Brain Research Travel Fellowship Award.

May 2009: award as a Preceptor in the Howard Hughes Medical Institute Student Internship Program.

August 2008: two-year NIMH Julius Axelrod Memorial Fellowship Training Award.

May 2008: award as a Preceptor in the Howard Hughes Medical Institute Student Internship Program.

May 2007: mentor to prize winner of the American Academy of Neurology (AAN) Neuroscience Research Prize; Boston, annual meeting of the AAN.

September 2005- August 2010: fellowship, National Institute of Mental Health, NIH, USA.

January 2002- December 2004: doctoral fellowship, pharmacology program, University of Padova, Italy.

October 2003: scholarship from the Italian Society of Pharmacology.

PUBLICATIONS

- 1 Huang H, Michetti C, Busnelli M, Managò F, Sannino S, Scheggia D, Giancardo L, Sona D, Murino V, Chini B, Luisa Scattoni M, **Papaleo F**. Chronic and Acute Intranasal Oxytocin Produce Divergent Social Effects in Mice. *Neuropsychopharmacology*. 2013 Nov 4. doi: 10.1038/npp.2013.310. [Epub ahead of print]. IF: 8.678.
- 2 **Papaleo F**, Burdick MC, Callicott JH, Weinberger DR. Epistatic interaction between COMT and DTNBP1 modulates prefrontal function in mice and in humans. *Molecular Psychiatry*. 2013 Oct 22. doi: 10.1038/mp.2013.133. [Epub ahead of print]. IF: 14.897.
- 3 Giancardo L, Sona D, Huang H, Sannino S, Managò F, Scheggia D, **Papaleo F**, Murino V. Automatic visual tracking and social behaviour analysis with multiple mice. *PLoS One*. 2013 Sep 16;8(9):e74557. doi: 10.1371/journal.pone.0074557. IF: 3.730.
- 4 Scheggia D, Bebensee A, Weinberger DR, **Papaleo F**. The Ultimate Intra/Extradimensional Attentional Set-Shifting Task for Mice. *Biological Psychiatry*. 2013 Jun 27. doi:pii: S0006-3223(13)00475-7. 10.1016/j.biopsych.2013.05.021. [Epub ahead of print]. IF: 9.247.
- 5 Carr GV, Jenkins KA, Weinberger DR, **Papaleo F**. Loss of dysbindin-1 in mice impairs reward-based operant learning by increasing impulsive and compulsive behavior. *Behav Brain Res*. 2013 Mar 15;241:173-84. doi: 10.1016/j.bbr.2012.12.021. Epub 2012 Dec 20. IF: 3.417.
- 6 **Papaleo F**, Erickson L, Liu G, Chen J, Weinberger DR. Effects of sex and COMT genotype on environmentally modulated cognitive control in mice. *Proc Natl Acad Sci U S A*. 2012 Dec 4;109(49):20160-5. doi: 10.1073/pnas.1214397109. Epub 2012 Nov 19. IF: 9.737.
- 7 Armando M, Saba R, Monducci E, **Papaleo F**, Dario C, Righetti V, Brandizzi M, Fiori P. Subtypes of psychotic-like experiences in a community sample of young adults: socio-demographic correlates and substance use. *Rivista di Psichiatria*, 2012, 47, 5: 424-431. IF: 0.235.
- 8 Law AJ, Wang Y, Sei Y, O'Donnell P, Piantadosi P, **Papaleo F**, Straub RE, Huang W, Thomas CJ, Vakkalanka R, Besterman AD, Lipska BK, Hyde TM, Harrison PJ, Kleinman JE, Weinberger DR. Neuregulin 1-ErbB4-PI3K signaling in schizophrenia and phosphoinositide 3-kinase-p110 δ inhibition as a potential therapeutic strategy. *Proc Natl Acad Sci U S A*. 2012 Jul 24;109(30):12165-70. doi: 10.1073/pnas.1206118109. Epub 2012 Jun 11. IF: 9.737.
- 9 Scheggia D, Sannino S, Scattoni ML, **Papaleo F**. COMT as a drug target for cognitive functions and dysfunctions. *CNS & Neurological Disorders-Drug Targets*. 2012 May;11(3):209-21. Review. IF: 3.810.
- 10 Armando M, **Papaleo F**, Vicari S. COMT implication in cognitive and psychiatric symptoms in chromosome 22q11 microdeletion syndrome. *CNS & Neurological Disorders-Drug Targets*. 2012 May;11(3):273-81. Review. IF: 3.810.
- 11 **Papaleo F**. COMT as a Drug Target for Nervous System Disorders. *CNS & Neurological Disorders-Drug Targets*. 2012 May;11(3):193-4. IF: 3.810.
- 12 Ingallinesi M, Rouibi K, Le Moine C, **Papaleo F**, Contarino A. CRF₂ receptor-deficiency eliminates opiate withdrawal distress without impairing stress-coping. *Molecular Psychiatry*. 2012 Dec;17(12):1283-94. doi: 10.1038/mp.2011.119. Epub 2011 Sep 27. IF: 14.897.
- 13 **Papaleo F**, Silverman JL, Aney J, Tian Q, Barkan CL, Chadman KK, Crawley JN. Working memory deficits, increased anxiety-like traits and seizure susceptibility in BDNF overexpressing mice. *Learning & Memory*. 2011 Jul 26;18(8):534-44. Print 2011 Aug. IF: 4.219.
- 14 **Papaleo F**, Lipska BK, Weinberger DR. Mouse models of genetic effects on cognition: Relevance to schizophrenia. *Neuropharmacology*. 2012 Mar;62(3):1204-20. Epub 2011 May 5. IF: 4.814.

- 15 **Papaleo F**, Weinberger DR. Dysbindin and Schizophrenia: It's dopamine and glutamate all over again. *Biological Psychiatry*. 2011 January 1; 69(1): 2-4. IF: 9.247.
- 16 **Papaleo F**, Yang F, Garcia S, Chen J, Lu B, Crawley JN, Weinberger DR. Dysbindin-1 modulates prefrontal cortical activity and schizophrenia-like behaviors via dopamine/D2 pathways. *Molecular Psychiatry* 2012 Jan; 17(1):85-98. doi: 10.1038/mp.2010.106. Epub 2010 Oct 19. IF: 14.897.
- 17 Ji Y, Yang F, **Papaleo F**, Wang HX, Gao WJ, Weinberger DR, Lu B. Role of dysbindin in dopamine receptor trafficking and cortical GABA function. *Proc Natl Acad Sci*. 2009 Nov 17; 106(46):19593-19598. Epub 2009 Nov 3. IF: 9.737.
- 18 **Papaleo F**, Chen J, Weinberger DR. Animal models of genetic effects on cognition, in: *The Genetics of Cognitive Neuroscience*. MIT press. 2009. Chapter 3, pages 51-94.
- 19 **Papaleo F**, Crawley JN, Song J, Lipska BK, Pickel J, Weinberger DR, Chen J. Genetic dissection of the role of Catechol-O-Methyltransferase in cognition and stress reactivity in mice. *J. Neurosci*. 2008 Aug 27; 28(35):8709-23. IF: 7.452.
- 20 **Papaleo F**, Ghosland S, Ingallinesi M, Roberts AJ, Koob GF, Contarino A. Disruption of the CRF₂ receptor pathway decreases the somatic expression of opiate withdrawal. *Neuropsychopharmacology*. 2008 Nov;33(12):2878-87. Epub 2008 Feb 20. IF: 7.991.
- 21 **Papaleo F**, Kieffer BL, Tabarin A, Contarino A. Decreased motivation to eat in μ -opioid receptor-deficient mice. *European Journal of Neuroscience*. 2007 Jun; 25(11):3398-3405. IF: 3.631.
- 22 **Papaleo F**, Kitchener P, Contarino A. Disruption of the CRF/CRF₁ receptor stress system exacerbates the somatic signs of opiate withdrawal. *Neuron*. 2007 Feb 15;53(4):577-589. IF: 14.736.
- 23 **Papaleo F** and Contarino A. Gender- and morphine dose-linked expression of spontaneous somatic opiate withdrawal in mice. *Behavioural Brain Research*. 2006 Jun 3; 170(1):110-8. IF: 3.417.
- 24 Contarino A and **Papaleo F**. The corticotropin-releasing factor receptor-1 pathway mediates the negative affective states of opiate withdrawal. *Proc Natl Acad Sci*. 2005 Dec 20; 102(51):18649-18654. IF: 9.737.

EDITORIAL AND RELATED ACTIVITIES

Guest Editor for:

- CNS & Neurological Disorders-Drug Targets (CNSND-DT). Special issue: "Catechol-O-Methyltransferase as a drug target for nervous system disorders". 2012 May.

Editorial Advisory Board:

- CNS & Neurological Disorders-Drug Targets (CNSND-DT).

Ad Hoc Reviewer for journals:

ACS Chemical Neuroscience. Behavioral Neuroscience. Behavioural Brain Research. Biological Psychiatry. British Journal of Pharmacology. CNS & Neurological Disorders-Drug Targets. Cognitive Neuropsychiatry. Experimental Neurology. Expert Opinion On Drug Discovery. Learning & Memory. Molecular Neurobiology. Neuropharmacology. Neuropsychopharmacology. Neuroscience Bulletin. Neuroscience & Biobehavioral Reviews. Journal of Neurochemistry. PLOS ONE. Psychopharmacology. Scientific Reports. Synapse.

The International Journal of Neuropsychopharmacology. The Journal of Neuroscience. The Journal of Visualized Experiments (JoVE). Translational Psychiatry.

Ad Hoc Reviewer for grants:

- "Futuro in Ricerca 2013". MIUR (Ministero dell'Istruzione, dell'Università e della Ricerca), Italy.
- Individual Research Grants from the National Medical Research Council, Singapore.
- Project SEED Grants; Istituto Italiano di Tecnologia, Italy.
- European Commission, FP7-PEOPLE, Marie Curie Integration Grants.

TEACHING

- 3-hour course on "Preclinical Studies of Cognitive Functions". For Biotechnology students. University of Padova, Padova, Italy (November 2013).
- 40-hour course on "Pharmacology". For nurses and nursing students at the Medical School of the University of Padova, Rovigo, Italy. (September 2013-December 2013).
- 3-hour course on "Genetics of Schizophrenia: Modeling Madness in Mice". University of Catania, Italy. (May 2013).
- 40-hour course on "Pharmacology". For nurses and nursing students at the Medical School of the University of Padova, Treviso, Italy. (September 2012-January 2013).
- 9-hour course on "Studying cognition in mice". For PhD students in Neuroscience and Brain Technologies XXVII cycle. Istituto Italiano di Tecnologia, Genova, Italy (July 2012).
- 9-hour course on "Studying cognition in mice". For PhD students in Neuroscience and Brain Technologies XXVI cycle. Istituto Italiano di Tecnologia, Genova, Italy (September 2011).
- 9-hour course on "Studying cognition in mice". For PhD students in Neuroscience and Brain Technologies XXV cycle. Istituto Italiano di Tecnologia, Genova, Italy (September 2010).
- 3-hour course on "Role of corticotropin releasing factor receptor 1 in opiate withdrawal". For resident medical students in Pharmacology, University of Padova, Italy (November 2004).

INVITED LECTURES

- Genetics of Schizophrenia and Cognition. Institut Francois Magendie, Bordeaux, France (December 2013).
- Dysbindin-1 modulates cognitive deficits relevant to schizophrenia via dopamine pathways. Dopamine 2013. Alghero, Italy. (May 2013).
- Genetics of Schizophrenia: Modeling Madness in Mice. Incontro sulla Schizofrenia. University of Padova, Italy. (March 2013).
- Arc genetic disruption produces schizophrenia-like phenotypes in mice. 46th Annual Winter Conference on Brain Research. Breckenridge, CO, USA. (January 2013).
- Executive Functions and Social Behavior in Mice: Relevance to Schizophrenia. Università di Milano-Bicocca and A.O. San Gerardo. Milano and Monza, Italy (September 2012).
- Lectio Magistralis. COMT, Dysbindin and their interaction: implications for schizophrenia. Università degli Studi di Verona. Verona, Italy (August 2012).
- Chair and organizer of the Symposium "Modeling schizophrenia symptoms and neurobiology in mice". IBNS 21st Annual Meeting. Kailua-Kona, Hawaii, USA (June 2012).

- Development of cognitive deficits relevant to schizophrenia in COMT and Dysbindin mouse mutants. IBNS 21st Annual Meeting. Kailua-Kona, Hawaii, USA (June 2012).
- Schizophrenia: from basic research to clinical management. Animal models: genetic variations. University of Insubria. Busto Arsizio, Italy (February 2012).
- COMT, Dysbindin and their interaction: towards early detection and personalized interventions for schizophrenia-related cognitive deficits. F. Hoffmann-La Roche AG, Basel Switzerland (November 2011).
- Development of cognitive deficits relevant to schizophrenia in COMT and Dysbindin mouse mutants. Center for Neurosensory Disorders. UNC School of Dentistry; Chapel Hill, NC, USA (November 2011).
- Selecting Promising Animal Paradigms. Cognitive Neuroscience Treatment Research to Improve Cognition in Schizophrenia (CNTRICS). Washington, DC, USA (April 2011).
- Geni, ambiente e psicosi: dai modelli animali all'uomo. Società Italiana di Psicopatologia. PSICHIATRIA 2011: Vulnerabilità, esordi, intervento precoce. Roma, Italy (February 2011).
- COMT, dysbindin and their interaction: implications for schizophrenia. Séminaires de Neurobiologie, Institut des Neurosciences de Bordeaux, Bordeaux, France (September 2009).
- Disease models of genetic susceptibility for complex brain disorders. 42nd Annual Winter Conference on Brain Research, Colorado, USA (January 2009).
- COMT and Dysbindin: insights from genetic mouse models. Genes, Cognition and Psychosis Program/NIMH/NIH Seminar (October 2008).
- COMT and Dysbindin: insights from genetic mouse models. Italian Institute of Technology, IIT, Genova, Italy (October 2008).
- COMT and Dysbindin: insights from genetic mouse models. Istituto Superiore di Sanita', ISS, Roma, Italy (October 2008).
- COMT, Dysbindin and their interaction: insights from genetic mouse models. Clinical Brain Disorders Branch/NIMH/NIH (April 2008).
- Genetic dissection of the role of Catechol-O-Methyltransferase (*COMT*) in cognition and stress reactivity in mice. Italian Institute of Technology, IIT, Genova, Italy (April 2008).
- Genetic manipulation of Catechol-o-Methyltransferase (*COMT*) in mice affects specific cognitive processes. NIMH 11th Annual Scientific Retreat (September 2007).