

Titles

2018-2024	Abilitazione scientifica nazionale a professore di II fascia Settore Concorsuale 11/E1-Psicologia Generale, Psicobiologia E Psicometria; SSD MPSI/02- Psicobiologia E Psicologia Fisiologica
02/2009	PhD, Psychobiology and Psychopharmacology, Sapienza University of Rome
10/2005	Master, Université Paul Sabatier, Toulouse, France
07/2004	Master's degree, Biological Sciences, Sapienza University of Rome

Appointments

2014-2019	<i>Senior post doc</i> , Laboratory of Genetics of Cognition, Italian Institute of Technology (IIT), Genoa
2010-2014	<i>Post doc</i> , Laboratory of Molecular Neuroscience, Imperial College, London, UK
2009-2010	<i>Visiting scientist</i> , Laboratory of Neuroplasticity and Disease, Imperial College, London, UK
2005-2009	<i>PhD student</i> , Department of Biology and Biotechnology, Sapienza University of Rome
2005	<i>Master student</i> , Centre des Recherches sur la Cognition Animal, Université Paul Sabatier, Toulouse, France
2004	<i>Visiting student</i> , Institute of Cellular Biology, CNR, Monterotondo, Rome

Fellowships and awards

2018	Travel Grant for the 11th FENS Forum, Berlin, Germany
2017	Travel Grant from International School of Neuroscience, Catania
2006	Travel Grant for the 5th FENS Forum (Vienna)
2005	PhD fellowship, Department of Biology and Biotechnology, Sapienza University of Rome
2005	Travel fellowship for one year of research training abroad from Sapienza University of Rome
2000	Erasmus fellowship, Sapienza University of Rome

Main research interests:

Brain circuits of social behavior; genetic and pharmacological strategies for the treatment of social and cognitive deficits in animal models of neuropsychiatric disorders (intervention during development; role of immune system). Molecular substrates of learning and memory; experience-dependent plasticity; role of sleep in memory modulation.

Teaching experiences

2015-present	Supervision of undergraduate/PhD students, (IIT), Genoa
2018	Lecture for Neuroscience Training School (IIT) Genoa
2017	Lecture for 'Psicobiologia', Master's degree in Neurobiology, Sapienza University of Rome

2011-2014	Supervision of undergraduate/master/PhD students, Imperial College, London
2005-2008	Supervision of undergraduate/master students, Sapienza University of Rome
2005-2008	Lectures for 'Tecniche di studio del comportamento animale', Master's degree in Neurobiology, Sapienza University of Rome

Invited speech

2019	'Oxytocin-dependent emotion recognition in mice', UCL, London, UK
2018	'Oxytocin-dependent emotion recognition in mice', MINDSS School, Genova
2015	'Alla ricerca di terapie personalizzate per il trattamento della schizofrenia' Caffè letterario, Genova
2013	'Pint of science': "Why do we sleep" Science festival, London, UK

Schools

2018	Social Neuroscience in Rodents: Behavioral Phenotyping and Ultrasonic Vocalizations in Rodent Models of Neuropsychiatric Disorders, Marburg, Germany
2015	Statistic for the scientific research: theory and applications, IIT, Genoa
2016	Genetics in medicine, IIT, Genoa

Invited reviewer

2015- present	<u>International Grants</u> : French National Research Agency (ANR)
2014-present	<u>Scientific Journals</u> : Physiology & Behaviour, Plos1, Psychopharmacology, Cerebral Cortex, Neuroscience, Scientific Report
2018	<u>PhD thesis</u> : PhD course in Behavioral Neuroscience, University Sapienza of Rome

Languages

English, fluent
French, intermediate

Peer-reviewed publications

1. Scheggia D*, Managò F*, Maltese F, Bruni S, Nigro M, Dautan D, Latuske P, Contarini G, Gomez-Gonzalo M, Reque LM, **Ferretti V**, Castellani G, Mauro D, Bonavia A, Carmignoto G, Yizhar O & Papaleo F (2020). Somatostatin interneurons in the prefrontal cortex control affective state discrimination in mice. *Nat Neurosci* 23, 47–60. doi:10.1038/s41593-019-0551-8 (IF 21,13)
2. Leggio GM, Torrisi SA, Mastrogiacomo R, Mauro D, Chisari M, Devroye C, Scheggia D, Nigro M, Geraci F, Pintori N, Giurdanella G, Costa L, Bucolo C, **Ferretti V**, Sortino MA, Ciranna L, De Luca MA, Mereu M, Managò F, Salomone S, Drago F & Papaleo F (2019). The epistatic interaction between the dopamine D3 receptor and dysbindin-1 modulates higher-order cognitive functions in mice and humans *Molecular Psychiatry*. doi: 10.1038/s41380-019-0511-4 (IF 11,97)

3. Castellani G, Contarini G, Mereu M, Albanesi E, Devroye C, D'Amore C, **Ferretti V**, De Martin S, Papaleo F. Dopamine-mediated immunomodulation affects choroid plexus function. *Brain Behav Immun*. 2019 Oct;81:138-150. doi:10.1016/j.bbi.2019.06.006 (IF 6,31)
4. Contarini, G., **Ferretti, V.**, & Papaleo, F. (2019). Acute administration of Urb597 fatty acid amide hydrolase inhibitor prevents attentional impairments by distractors in adolescent mice. *Frontiers in Pharmacology*, 10 doi:10.3389/fphar.2019.00787 (IF 4,4)
5. **Ferretti V***, Maltese F*, Contarini G, Nigro M, Bonavia A, Huang H, Gigliucci V, Morelli G, Scheggia D, Managò F, Castellani G, Lefevre, Cancedda L, Chini B, Grinevich V, Papaleo F. (2019). "Oxytocin signaling in the central amygdala modulates mice emotion discrimination. *Current Biology* 29(12): 1938-1953 (IF 9,25)
6. **Ferretti V**, Papaleo F. Understanding others: emotion recognition abilities in humans and other animals. *Genes, Brain and Behavior* (IF 3,50)
7. Scheggia D, Zamberletti E, Realini N, Mereu M, Contarini G, **Ferretti V**, Managò F, Margiani G, Brunoro R, Rubino T, De Luca MA, Piomelli D, Parolaro D, Papaleo F. (2018). Remote memories are enhanced by COMT activity through dysregulation of the endocannabinoid system in the prefrontal cortex. *Mol Psychiatry* 23(4):1040-1050. Epub 2017 Jun 20. (IF 11,64)
8. Capitano F, Camon J, Licursi V, **Ferretti V**, Maggi L, Scianni M, Del Vecchio G, Rinaldi A, Mannironi C, Limatola C, Presutti C, Mele A. (2017). MicroRNA-335-5p modulates spatial memory and hippocampal synaptic plasticity. *Neurobiol Learn Mem*. 139:63-68. (IF 3,54)
9. Katsageorgiou VM, Zanotto M, Huang H, **Ferretti V**, F Papaleo, Sona D, Murino V. Unsupervised mouse behavior analysis: A data-driven study of mice interaction. 23th *International Conference on Pattern Recognition (ICPR)*, 2016, 925-930. (IF 4,58)
10. Capitano F*, Camon J*, **Ferretti V***, Licursi V, De Vito F, Rinaldi A, Vincenti S, Mannironi C, Fragapane P, Bozzoni I, Oliverio A, Negri R, Presutti C, Mele A. (2016). "microRNAs Modulate Spatial Memory in the Hippocampus and in the Ventral Striatum in a Region-Specific Manner" *Mol Neurobiol*. 53(7):4618-30 ***co-first author** (IF 6,19)
11. Song S, Grillo FW, Xi J, **Ferretti V**, Gao G, De Paola V. (2016) "EPBscore: a novel method for computer-assisted analysis of axonal structure and dynamics". *Neuroinformatics* 14(1):121-7 (IF 3,20)
12. Zhang Z*, **Ferretti V***, Güntan İ, Moro A, Steinberg EA, Ye Z, Zecharia AY, Yu X, Vyssotski AL, Brickley SG, Yustos R, Pillidge ZE, Harding EC, Wisden W, Franks NP. (2015). "Neuronal ensembles sufficient for recovery sleep and the sedative actions of $\alpha 2$ adrenergic agonists" *Nature Neuroscience* 18(4):553-61. ***co-first author** (IF 16,72)
13. Gelegen C, Gent TC, **Ferretti V**, Zhang Z, Yustos R, Lan F, Yang Q, Overington DW, Vyssotski AL, van Lith HA, Wisden W, Franks NP. (2014) "Staying awake – a genetic region that hinders $\alpha 2$ adrenergic receptor agonist-induced sleep" *Eur J Neurosci*. 40(1):2311-9. (IF 3,18)
14. **Ferretti V***, Perri V*, Cristofoli A, Vetere G, Fragapane P, Oliverio A, Ammassari Teule M, Mele A. (2015). "Phosphorylation of S845 GluA1 AMPA receptors modulates spatial memory and structural plasticity in the ventral striatum. *Brain Struct Funct*. 220(5):2653-61. (IF 5,62)
15. Grillo FW, Song S, Teles-Grilo Ruivo LM, Huang L, Gao G, Knott GW, Maco B, **Ferretti V**, Thompson D, Little GE, De Paola V.(2013) "Increased axonal bouton dynamics in the aging mouse cortex" *PNAS:110(16):E1514-23*. (IF 9,81)
16. **Ferretti V**, Roullet P., Sargolini F, Rinaldi A, Perri V, Del Fabbro M, Costantini VJA, Annese V, Scesa G, De Stefano ME, Oliverio A, Mele A. (2010). "Ventral striatal plasticity and spatial memory" *PNAS*: 107 (17):7945-50. (IF 9,77)

17. **Ferretti V**, Sargolini F, Oliverio A, Mele A and Roullet P (2007). "Effects of intra-accumbens NMDA and AMPA receptor antagonists on short-term spatial learning in the Morris water maze task." *Behav Brain Res.* 179 (1):43-9. (IF 2,63)
18. **Ferretti V**, Florian C, Costantini VJA, Roullet P, Rinaldi A, De Leonibus E, Oliverio A, Mele A. (2005). "Co-activation of glutamate and dopamine receptors within the nucleus accumbens is required for spatial memory consolidation in mice". *Psychopharmacology* 179: 108-116. (IF 3,99)
19. De Leonibus E, Costantini VJA, Castellano C, **Ferretti V**, Oliverio A, Mele A. (2003) "Distinct roles of the different ionotropic glutamate receptors within the nucleus accumbens in passive-avoidance learning and memory in mice" *Eur J Neurosci.* 18(8):2365-73. (IF 3,87)

*Co first author

Conferences

- Ferretti V*, Maltese F*, Contarini G, Nigro M, Bonavia A, Huang H, Gigliucci V, Morelli G, Scheggia D, Managò F, Castellani G, Lefevre A, Cancedda L, Chini B, Grinevich V, Papaleo F, Marburg 2018
- Ferretti V*, Maltese F*, Bonavia A, Huang H Gigliucci V, Nigro M, Scheggia D, Managò F, Chini B, Grinevich, Francesco Papaleo. Reading emotions through oxytocin FENS Berlin 2018
- Ferretti V, Bonavia A, Huang H, Maltese F, Gigliucci V, Nigro M, Scheggia D, Managò F, Chini B, Grinevich, Francesco Papaleo. Reading emotions through oxytocin Synapse Milano 2017
- Ferretti V, Bonavia A, Huang H, Maltese F, Gigliucci V, Nigro M, Scheggia D, Managò F, Chini B, Grinevich, Francesco Papaleo. Emotion Recognition test in mice, GRS Gordon Conference, Boston USA 2017
- Ferretti V, Huang H, Gentili G, Nigro M, Busnelli Chini B and Papaleo F. Loss of the schizophrenia susceptibility gene dysbindin-1 affects mice sociability and oxytocin brain pathways, Synapsy, Geneve 2016
- Ferretti V, Nigro M, Huang H, Gentili G and Francesco Papaleo. Social behaviour and cortical plasticity. Champalimaud Neuroscience Symposium, Lisbon 2015
- Ferretti V, Moro A, Steinberg E, Brown M, Yustos R, Zecharia A, Grillo F, Vyssotski AL, Chadderton P, De Paola V, Wisden W & NP. Franks. Genetic dissection of post-synaptic alpha2a adrenergic receptors in controlling arousal and cognition Fens 2014 Milan
- Ferretti V, Steinberg E, Wisden W, Franks NP. Exploring the role of the locus-coeruleus-noradrenaline system in dexmedetomidine induced sedation and sleep BN ALondon 2013
- Ferretti V, Perri V, Fragapane P, Oliverio A & Mele A. "Role of AMPA receptors in the ventral striatum in long-term spatial memory" *Neuroscience* San Diego 2011
- Camon J, Licursi V, Ferretti V, Vincenti S, Fragapane P, Mannironi C, Paggi P, Negri R, Presutti C, Oliverio A & Mele A. "Large scale screening of miRNA Expression in different brain structures after spatial learning in mice." 7th FENS Forum. Amsterdam 2010
- Perri V, Ferretti V, Fragapane P, Oliverio A & Mele A. "AMPA receptor activation and phosphorylation within the ventral striatum are required for long term spatial memory in mice." 7th FENS Forum. Amsterdam 2010
- Ferretti V., Trettel F., Perri V, Oliverio A. & Mele A. "Encoding of spatial information requires ventral striatum ampa receptor activation and phosphorylation in mice". 6th FENS Forum. Geneve 2008
- Mele A., Ferretti V., Licursi V., Vincenti S., Fragapane P., Mannironi C., Paggi P., Negri R., Presutti C. & Oliverio O. "Large scale screening of mRNA and miRNA expression in different brain structures after spatial learning in mice." 6th FENS Forum. Geneve 2008

- V. Ferretti, M. Del Fabbro, A. Oliverio and A. Mele "Spatial memory and striatal plasticity" 8° Colloque de la Societè des Neurosciences. Montpellier 2007.
- V. Ferretti, M. Del Fabbro, A. Oliverio and A. Mele "Spatial memory and striatal plasticity" First meeting of Italian doctorate students and bursars in neuroscience and related subjects. Torino 2007.
- V. Ferretti, M. Del Fabbro, A. Oliverio and A. Mele "Spatial memory and striatal plasticity" 5th FENS Forum. Vienna 2006.
- V.J.A.Costantini, A.Rinaldi, V.Ferretti, M.Del Fabbro, P.Roullet, A.Oliverio, A.Mele. Spatial memory consolidation needs plastic changes within the nucleus accumbens. Workshop on Memory and Related Disorders. Madrid 2005.
- A.Mele, E.De Leonibus, V.J.A.Costantini, A.Rinaldi, V.Ferretti, M.Del Fabbro, P.Roullet, A.Oliverio. "Plastic changes within the nucleus accumbens are necessary for the consolidation of spatial information". International Symposium Neuroplasticity, Neurotrophic Factors And Mood Disorders. Pisa 2005.
- A.Mele, E.De Leonibus, V.J.A.Costantini, A.Rinaldi, V.Ferretti, P.Roullet, F.Sargolini, A.Oliverio. "Protein synthesis within the nucleus accumbens is necessary for long-term spatial memory formation". IV Incontro dell'Istituto CNR di Neuroscienze. Roma 2005.
- V.Ferretti, C.Florian, V.J.A.Costantini, P.Roullet, A.Rinaldi, E.De Leonibus, A.Oliverio, A.Mele. "Co-activation of glutamate and dopamine receptors within the nucleus accumbens is required for spatial memory consolidation in mice" European Brain and Behavioural Society Meeting, September 2003, Barcelona (Spain)
- V.Ferretti, A.Oliverio and A.Mele "Role of glutamate-dopamine interactions within the nucleus accumbens on spatial memory consolidation in mice" SfN 2003 - New Orleans, Louisiana, USA

Il sottoscritto esprime il proprio consenso affinché i dati personali forniti possano essere trattati nel rispetto del Decreto legislativo 30.6.2003, n. 196, per gli adempimenti connessi alla presente procedura.

