

Igor BRANCHI - Nationality: Italian

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EDUCATION AND PROFESSIONAL EXPERIENCE

- 2018 – present Visiting Professor of Behavioral Science and Ethology at Sapienza, University of Rome, Italy
- 2002 - present Researcher at the Center for Behavioral Sciences and Mental Health, Istituto Superiore di Sanità, Rome, Italy
- 1.2.2013 - 31.1.2014 Experienced Researcher Marie Curie fellow and visiting scientist at the Institute of Anatomy, University of Zürich, Zürich, Switzerland
- 26.6.2001 Ph.D. Degree (*avec félicitations*) in Neuroscience and Behaviour at the University of Orléans, France
- 2001 - 2002 Research associate, in the frame of a European community research project, at the Behavioural Pathophysiology Section, Laboratorio di Fisiopatologia di Organo e di Sistema, Istituto Superiore di Sanità, Rome, Italy
- 1998 - 2000 Scientific guest at the Laboratory Génétique, Neurogénétique, Comportement, Institut de Transgénose, CNRS, Orléans, France
- 19.2.1996 *Laurea* degree (*summa cum laude*) in Biological Sciences (Psychobiology) University "La Sapienza", Rome, Italy
- 1992 - 1998 Scientific guest at the Behavioural Pathophysiology Section, Laboratorio di Fisiopatologia di Organo e di Sistema, Istituto Superiore di Sanità, Rome, Italy

HONOURS AND FELLOWSHIPS (SELECTION)

- Marie Curie fellowship for Experienced Researcher (University of Zurich), 2011 (1 year)
- Telethon fellowship for Genetic Disease Research, 2000 (1 year)
- University of Rome “La Sapienza” fellowship for biomedical sciences, 2001 (1 year)
- Italian CNR fellowships for biological research, 1999 (1 year)
- University of Rome “La Sapienza” fellowship for top ranking students, 1994-1995 (2 years)

INTERNATIONAL SCIENTIFIC COMMITTEES

- Member of the European College of Neuropsychopharmacology Network – “Anxiety disorders” 2019-present
- Member of the European College of Neuropsychopharmacology Network – “Preclinical data forum” 2017-present
- Member of the Executive Committee of the EBBS - European Brain and Behaviour Society (EBBS) 2011-2015
- Member, Scientific Committee of-EBBS-EBPS (European Brain Pharmacology Society) joint meeting (12-15 September 2015, Verona, Italy)
- Member of the Programme Committee, EBBS/EWCBR interdisciplinary conference (Brides-les-Bains, France, 15-22 March 2014)
- Member of the Programme Committee, EBBS - European Brain and Behaviour Society meeting (Munich, Germany, 6-9 September 2013)
- Member of the Programme Committee, IBANGS - International Behavioural and Neural Genetics Society meeting (Boulder, Colorado, USA, 15-19 May 2012)
- Local organizer of the IBANGS - International Behavioural and Neural Genetics Society meeting (Rome, Italy, 10-14 May 2011)
- Member of the Programme Committee, IBNS - International Behavioral Neuroscience Society meeting (Villasimius, CA, Italy, 10-13 June 2010)

EDITORIAL POSITIONS, BOARDS, AND PEER-REVIEW SERVICE

- *Academic Editor*, PLoS One (since 2014)
- *Guest Editor* for a special issue of the journal Psychoneuroendocrinology titled *In search of the biological basis of mood disorders: exploring out of the mainstream* (2011)

- **Expert Reviewer for the following international funding agencies:** NWO -Netherlands Organisation for Scientific Research, The Netherlands; Swiss-Polish Research Programme; Irish Health Research Board; Agence Nationale de la Recherche, France; European project RBUCE-UP, UniverSud Paris, France; Central Finance and Contracting Agency, Latvia; National Science Center, Poland; Sapienza University, Rome, Italy; Italian Ministry of Education, Universities and Research, Italy; Executive Agency for Higher Education, Research, Development and Innovation Funding; Romania

- **Referee for the scientific journals, including:** Molecular Psychiatry, Biological Psychiatry, Psychoneuroendocrinology, Behavioural Brain Research, Neuroscience and Biobehavioral Reviews, Genes Brain and Behavior, European Neuropsychopharmacology, Behavioural Processes, Frontiers in Neuroscience, Progress in Neuropharmacology and Biological Psychiatry, Autism Research, Psychopharmacology, Current Zoology, Brain Research Bulletin

PROFESSIONAL AFFILIATION

1999-2012 International Behavioural and Neural Genetics Society
2008-2009 Society for Neuroscience
2009- European Brain and Behavioural Society
2010-2012 International Behavioral Neuroscience Society
2016- European College of Neuropsychopharmacology

FUND RAISING

-- Principal Investigator (PI) - Inflammatory control of antidepressant efficacy: a pharmaco-epigenetic approach. Granting agency: Italian Ministry of Health - Ricerca finalizzata – 2019-2022 (442000 Euros)

-- PI of Operative Unit (OU) - ADORe – Targeting adolescent neurocognitive processes in depression to promote intervention response. Granting agency: ERANET Neuron – 2019-2022 (250000 Euros)

- -PI of OU - MicroSynDep – Microglial control of synaptic function in stress response and vulnerability to depression. Granting agency: ERANET Neuron – 2018-2021 (200000 Euros)

-- PI - Strategies in potentiating antidepressant efficacy. Granting agency: Italian Ministry of Health - Ricerca finalizzata – 2014-2018 (448000 Euros)

-- PI of Operative Unit (OU) - ISOBIOTOX – Molecular markers for measure the effects of Antarctica pollution in the brain. Granting agency: National Research Programme for Antarctica (PRNA) – 2014-2015 (7000 Euros)

LESSONS OR INVITED ORAL PRESENTATIONS (SELECTION AMONG OVER 60)

1. Drug by environment interaction in antidepressant treatment: SSRIs amplify the influence of the living conditions on mood and organizer of the symposium: Thinking mental health outside of the brain box: the interplay between mind, body and environment, meeting: **ECNP- European Collegium of Neuropsychopharmacology Congress** (Barcelona, Spain, 6-9 Oct2017)
2. Environment and brain plasticity: living conditions drive the effects of antidepressant drugs and organizer of the symposium: Exploring the bases of physiological and pathological behaviour: thinking out of the brain box, meeting: **EBBS-European Brain Behaviour Society meeting** (Bilbao, Spain, 8-11 Sept 2017)
3. Serotonin, brain plasticity and the environment: SSRIs amplify the influence of the living conditions on mood at Imperial College London (London, UK, 4 July 2017)
4. Stress response is context-dependent: the role of early experiences in shaping the adult reactivity to the environment at University of Bern (Bern, Switzerland, 11 May 2017)
5. Serotonin, brain plasticity and the environment: living conditions drive the outcome of antidepressant drugs at Vrije Universiteit Amsterdam (The Netherlands, 7 November 2016)
6. SSRI treatment outcome is driven by the quality of the living environment and organizer of the symposium: Improving antidepressant treatment outcome: mechanisms, moderators and innovative therapeutic strategies, meeting: **ECNP-European College of Neuropsychopharmacology meeting** (Vienna, Austria, 17-20 September 2016)
7. Immunopsychiatry meetings - Beneficial and adverse consequences of increased neural plasticity: the interplay between antidepressants and the quality of the environment at King's College London (London, UK, 25 May 2016)
8. The interplay among serotonin, brain function and the environment at Institute Fer a Moulin - Institute Marie Curie (Paris, France, 18 June 2015)
9. Beneficial and adverse consequences of increased brain plasticity: the interplay among serotonin,

- susceptibility to the environment and depression and organizer of the symposium: Identifying biomarkers of depression: New views on serotonin in brain function and psychiatric disorders, meeting: **European Psychiatry Association meeting** (Vienna, Austria, 28-31 March 2015)
10. Complex approach to the study of behaviour at University of Rome *Sapienza* Rome, Italy, 24 March 2015)
 11. Beneficial and adverse consequences of Increased brain plasticity: The interplay among serotonin, susceptibility to the environment and mental health at **University of Zurich** (Zurich, Switzerland, 18 November 2013)
 12. Antidepressant treatment during stress: the adverse consequences of increased brain plasticity meeting **International Society of PsychoNeuroEndocrinology** (Leiden, The Netherlands, 21 August 2013)
 13. Innovative perspectives and phenotyping strategies in the study of behavior and brain function in mice at **University of Zurich** (Zurich, Switzerland, 1 October 2012)
 14. Complexity of the nest environment: investigating the early determinants of the adult social behaviour at **University of Zurich** (Zurich, Switzerland, 5 October 2011)
 15. Complexity of the nest environment: investigating the early determinants of mouse social behaviour at **École Polytechnique Fédérale de Lausanne** (Lausanne, Switzerland, 2 November 2010)
 16. Complexity of the early social environment: mother and peer interactions independently shape adult depression-like behavior and coping response to stress in the mouse, meeting: **World Congress of Stress** (Leiden, The Netherlands, 26 August 2010)
 17. Early environment shapes vulnerability to psychopathology in animal models of depression: is altered metabolism a reliable biomarker? and organizer of the symposium: Identifying biomarkers of depression: New insights from animal models, meeting: **IX World Federation of Societies of Biological Psychiatry** (Paris, France, 28 June - 2 July 2009)
 18. When depression meets evolution meets animal models, meeting: **A darwinian approach to emotions and mood disorders** (Rome, Italy, 9 May 2008)
 19. Epigenetic control of brain plasticity and behaviour, **ENS-Blackwell Summer School 2007**_Advanced Course in Neuroplasticity (Rome, Italy, 5-11 September 2007)
 20. The effects of early social enrichment in mice on adult brain function and emotional behaviour at **University of Zurich** (Zurich, Switzerland, 22 November 2006)
 21. Early social enrichment shapes social and emotional behavior and neurotrophin levels in the adult mouse brain at Department of Zoology, **University of Cambridge** (Cambridge, UK, 5 October 2006)
 22. Role of neurotrophins as transducers of early experiences on brain function and behaviour (and press conference), meeting: **Federation of European Neuroscience Societies (FENS)** (Wien Austria, 8-12 July 2006)
 23. Neurobehavioral development in rodents: phenotyping strategies and modulating factors at **National Institute of Mental Health, National Institutes of Health** (Bethesda, MD, USA, 17 November 2005)
 24. Ultrasonic vocalisations by rodent pups: a tool for early neurobehavioural assessment at **MRC, Mammalian Genetic Unit** (Harwell, Oxfordshire, UK, 11 June 2004)
 25. Ultrasonic vocalisations by rodent pups: a tool for early neurobehavioural assessment at Department of Animal Physiology, **University of Groningen** (Groningen, The Netherlands, 5 March 2002)
 26. Assessment of mouse behavioral development following prenatal exposure to neurotoxicants at Department of Environmental Health, **University of Washington** (Seattle, WA, USA, 26 April 2001)

R software and Statistics Instructor

- Teacher, Tutor and scientific advisor: School of Statistics in biomedical research and R programming (IRCCS Scientific Institute for Research and Healthcare, Rome, Italy, 2017 and 2018 editions)

POPULARIZATION ACTIVITIES

- Member of the Scientific Committee of the *Science Festival* of Genova, Italy (one of the largest events aimed at popularizing science in Europe) 2013-2015
- Author of articles in the lay press. Collaboration with the following newspapers *Corriere della Sera, la Repubblica, La Stampa, L'Unità, L'indice dei libri del mese*
- Author of bibliographic entries for *Enciclopedia Italiana Treccani, Dizionario di Biologia, Utet*
- Participation to seminars aimed at popularizing scientific data for the general public as *Caffé Scienza* (Forma Scienza), seminars at central Rome train station *Termini*.
- Collaboration with TV shows aimed at popularizing science: *Geo & Geo, Tg2 medicina 33*, public Italian channel *Rai 2 e Rai 3*

SUPERVISING AND MENTORING ACTIVITIES

- 15 Italian *Laurea* (i.e. Bachelor/Master degree) students during their experimental work and thesis
- 4 PhD students in Italy during their experimental work and thesis
- 4 international PhD thesis advisory committees: Université de Lyon, École polytechnique fédérale de Lausanne, Max Planck Institute for Psychiatry in Munich, University of Zurich

**PUBLICATIONS (SELECTION OF 30 AMONG OVER 70)
H-INDEX = 34 (SCOPUS), 36 (GOOGLE SCHOLAR)**

1. Poggini S, Golia MT, Alboni S, Milior G, Pepè Sciarria L, Viglione A, Matte Bon G, Brunello N, Puglisi-Allegra S, Limatola C, Maggi L, **Branchi I** (2019) Combined fluoxetine and metformin treatment potentiates antidepressant efficacy increasing IGF2 expression in the dorsal hippocampus. *Neural Plasticity* doi: 10.1155/2019/4651031
2. Viglione A, Chiarotti F, Poggini S, Giuliani A, **Branchi I** (2019) Predicting antidepressant treatment outcome based on socioeconomic status and citalopram dose. *Pharmacogenomics J* doi: 10.1038/s41397-019-0080-6
3. Carhart-Harris RL, Roseman L, Haijen E, Erritzoe D, Watts R, **Branchi I**, Kaelen M (2018) Psychedelics and the essential importance of context. *J Psychopharmacology* 2:725-731.
4. Caruso A, Sabbioni M, Scattoni ML, **Branchi I** (2018) Quantitative and Qualitative Features of Neonatal Vocalizations in Mice. In: Handbook of Ultrasonic Vocalization (Brudzynski SM, ed), pp 139-147. HBBN, UK: Academic Press.
5. Alboni S, van Dijk M, Poggini S, Milior G, Perrotta ML, Drenth T, Brunello N, Wolfer D, Limatola C, Amrein I, Cirulli F, Maggi L, **Branchi I** (2017) Image: Hippocampus-related effects of fluoxetine treatment under stressful vs enriched conditions. *Mol Psychiatry* 22:483.
6. Alboni S, van Dijk RM, Poggini S, Milior G, Perrotta M, Drenth T, Brunello N, Wolfer DP, Limatola C, Amrein I, Cirulli F, Maggi L, **Branchi I** (2017) Fluoxetine effects on molecular, cellular and behavioral endophenotypes of depression are driven by the living environment. *Mol Psychiatry* 22:552-561.
7. Chiarotti F, Viglione A, Giuliani A, **Branchi I** (2017) Citalopram amplifies the influence of living conditions on mood in depressed patients enrolled in the STAR*D study. *Trans Psychiatry* 7:e1066.
8. Milior G, Castro MA, Sciarria LP, Garofalo S, **Branchi I**, Ragozzino D, Limatola C, Maggi L (2016) Electrophysiological Properties of CA1 Pyramidal Neurons along the Longitudinal Axis of the Mouse Hippocampus. *Sci Rep* 6:38242.
9. Alboni S, Poggini S, Garofalo S, Milior G, El Hajj H, Lecours C, Girard I, Gagnon S, Boisjoly-Villeneuve S, Brunello N, Wolfer DP, Limatola C, Tremblay ME, Maggi L, **Branchi I** (2016) Fluoxetine treatment affects the inflammatory response and microglial function according to the quality of the living environment. *Brain, behavior and immunity* 58:261-271.
10. Bisht K, Sharma KP, Lecours C, Sanchez MG, El Hajj H, Milior G, Olmos-Alonso A, Gomez-Nicola D, Luheshi G, Vallieres L, **Branchi I**, Maggi L, Limatola C, Butovsky O, Tremblay ME (2016) Dark microglia: A new phenotype predominantly associated with pathological states. *Glia* 64:826-839.
11. Milior G, Lecours C, Samson L, Bisht K, Poggini S, Pagani F, Deflorio C, Lauro C, Alboni S, Limatola C, **Branchi I***, Tremblay ME, Maggi L (2016) Fractalkine receptor deficiency impairs microglial and neuronal responsiveness to chronic stress. *Brain, behavior and immunity* 55:114-125. *co-last author
12. Bellisario V, Berry A, Capoccia S, Raggi C, Panetta P, **Branchi I**, Piccaro G, Giorgio M, Pelicci PG, Cirulli F (2014) Gender-dependent resiliency to stressful and metabolic challenges following prenatal exposure to high-fat diet in the p66(Shc^{-/-}) mouse. *Frontiers in behavioral neuroscience* 8:285.
13. **Branchi I**, Alboni S, Maggi L (2014) The role of microglia in mediating the effect of the environment in brain plasticity and behavior. *Front Cell Neurosci* 8:390.
14. **Branchi I**, Cirulli F (2014) Early experiences: Building up the tools to face the challenges of adult life. *Dev Psychobiol* 56:1661-1674.

15. **Branchi I**, Santarelli S, D'Andrea I, Alleva E (2013) Not all stressors are equal: Early social enrichment favors resilience to social but not physical stress in male mice. *Horm Behav* 63:503-509.
16. **Branchi I**, Ricceri L (2013) Learning and memory: Active and passive avoidance. In: Handbook of Behavioral Genetics of the Mouse. (Crusio WE, Sluyter FI, Gerlai RT, eds). Cambridge: Cambridge University Press.
17. **Branchi I**, Curley JP, D'Andrea I, Cirulli F, Champagne FA, Alleva E (2013) Early interactions with mother and peers independently build adult social skills and shape BDNF and oxytocin receptor brain levels. *Psychoneuroendocrinology* 38:522-532.
18. **Branchi I**, Santarelli S, Capoccia S, Poggini S, D'Andrea I, Cirulli F, Alleva E (2013) Antidepressant treatment outcome depends on the quality of the living environment: a pre-clinical investigation in mice. *PLoS One* 8:e62226.
19. Curley JP, **Branchi I** (2013) Ontogeny of Stable Individual Differences: Gene-Environment and Epigenetic Mechanisms. In: Animal Personalities: Behavior, Physiology and Evolution (Meastriepieri D, Carere C, eds). Chicago: Chicago University Press.
20. Kiser D, Steemers B, **Branchi I**, Homberg JR (2012) The reciprocal interaction between serotonin and social behaviour. *Neurosci Biobehav Rev* 36:786-798.
21. Tirassa P, Iannitelli A, Sornelli F, Cirulli F, Mazza M, Calza A, Alleva E, **Branchi I**, Aloe L, Bersani G, Pacitti F (2012) Daily serum and salivary BDNF levels correlate with morning-evening personality type in women and are affected by light therapy. *Riv Psichiatr* 47:527-534.
22. **Branchi I**, Karpova NN, D'Andrea I, Castren E, Alleva E (2011) Epigenetic modifications induced by early enrichment are associated with changes in timing of induction of BDNF expression. *Neuroscience letters* 495:168-172.
23. **Branchi I** (2011) The double edged sword of neural plasticity: Increasing serotonin levels leads to both greater vulnerability to depression and improved capacity to recover. *Psychoneuroendocrinology* 36:339-351.
24. **Branchi I**, D'Andrea I, Santarelli S, Bonsignore LT, Alleva E (2011) The richness of social stimuli shapes developmental trajectories: Are laboratory mouse pups impoverished? *Progress in neuro-psychopharmacology & biological psychiatry*.
25. Maggi L, Scianni M, **Branchi I**, D'Andrea I, Lauro C, Limatola C (2011) CX(3)CR1 deficiency alters hippocampal-dependent plasticity phenomena blunting the effects of enriched environment. *Front Cell Neurosci* 5:22.
26. **Branchi I**, D'Andrea I, Cirulli F, Lipp HP, Alleva E (2010) Shaping brain development: mouse communal nesting blunts adult neuroendocrine and behavioral response to social stress and modifies chronic antidepressant treatment outcome. *Psychoneuroendocrinology* 35:743-751.
27. **Branchi I**, D'Andrea I, Armida M, Carnevale D, Ajmone-Cat MA, Pezzola A, Potenza RL, Morgese MG, Cassano T, Minghetti L, Popoli P, Alleva E (2010) Striatal 6-OHDA lesion in mice: Investigating early neurochemical changes underlying Parkinson's disease. *Behav Brain Res* 208:137-143.
28. D'Andrea I, Gracci F, Alleva E, **Branchi I** (2010) Early social enrichment provided by communal nest increases resilience to depression-like behavior more in female than in male mice. *Behav Brain Res* 215:71-76.
29. **Branchi I** (2009) The mouse communal nest: investigating the epigenetic influences of the early social environment on brain and behavior development. *Neurosci Biobehav Rev* 33:551-559.
30. **Branchi I**, D'Andrea I, Fiore M, Di Fausto V, Aloe L, Alleva E (2006) Early social enrichment shapes social behavior and nerve growth factor and brain-derived neurotrophic factor levels in the adult mouse brain. *Biol Psychiatry* 60:690-696.