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CURRENT POSITION

January 1st, 2021 – today Post Doctoral Fellowship of the Umberto Veronesi Foundation with the project: '*Genistein and predisposition to obesity: from estrogen receptors to neural circuits*'. Supervisor: Prof. Giancarlo PANZICA, Department of Neuroscience 'Rita Levi Montalcini', University of Turin, Italy.

EDUCATION

2014 - 2018 PhD in Neuroscience, University of Turin, Italy.

Kisspeptin innervation of the Hypothalamic Paraventricular Nucleus: key for reproductive and metabolic control. Effects of postnatal exposure to Genistein. Supervisor: Prof. GianCarlo PANZICA, Neuroscience Institute Cavalieri Ottolenghi (NICO), Department of Neuroscience 'Rita Levi Montalcini', University of Turin, Turin (Italy).

2011 - 2013 Master's Degree in Biology Applied to Biomedicine curriculum Neurobiological, University of Pisa, Italy.
Training thesis under supervision of Dr. Alessandro SALE, Institute of Neuroscience CNR, Pisa (Italy).

2007 - 2011 Bachelor's Degree in Molecular Biological Sciences, University of Pisa, Italy.
Training thesis under supervision of Prof. Lucia MIGLIORE, Department of Translational Research and New Technologies in Medicine and Surgery, Pisa (Italy).

FELLOWSHIPS

2020 - Post Doctoral Fellowship, Department of Neuroscience 'Rita Levi Montalcini' University of Turin with the project: "Neuropeptides and development of behavioral disorders during the developmental period: experimental models and therapeutic potentials". Supervisor: Prof. Stefano GOTTI.

2018/2019 - Post Doctoral Fellowship, Department of Neuroscience 'Rita Levi Montalcini' University of Turin with the project: "Neuropeptides and development of behavioral disorders during the developmental period: experimental models and therapeutic potentials". Supervisor: Prof. Giancarlo PANZICA.

2017 - Training stay in the laboratory of Daniela GRASSI, Universidad Europea de Madrid, Basic Biomedical Science, Madrid, Spain.

2016/2017 - Research Fellowship of the CRT Foundation (Dep. Neuroscience, University of Turin), '*Ruolo dei neuropeptidi ipofisari e degli ormoni gonadici nel Disturbo da Deficit di Attenzione/Iperattività (ADHD)*'. Supervisor: Dr. Stefano GOTTI.

2016 - Cost Action GNRH Network, Short term Scientific Missions in Madrid, Spain.
January 1st - March 31st, 2016. Training stay, '*The effects of Genistein on neuronal differentiation in vitro*', in the laboratory of Prof. Luis Miguel GARCIA SEGURA, Cajal Institute, Neuroactive steroids, Madrid (Spain).

2016 - Grant Erasmus+ (Madrid, Spain).
January 15th - July 15th, 2016. Training stay awarded by Erasmus+ in the laboratory of Prof. Paloma COLLADO, National Distance Education University (UNED), Department of Psychology, Madrid (Spain).

2015 - Cost Action GNRH Network, Short term Scientific Missions.
March 16th - June 3th, 2015. Training stay, '*Kisspeptin, NPY and MSH systems, as targets for the action of the*

obesogenic food compound, genistein, in the brain in the laboratory of Dr. Matthieu KELLER, INRA, Neuroendocrinologie des Interactions et Comportements Sexuels, Tours (France).

TRAVEL GRANTS

- 2019** - Federation of European Neuroscience Societies (FENS), FENS Regional Meeting, Belgrade, Serbia.
2018 - Federation of European Neuroscience Societies (FENS), 11th FENS Forum of Neuroscience, Berlin, Germany.
2017 - Società italiana Neuroscienze (SINS), XVII National Congress, Ischia, Italy.
2015 - Cost Action GNRH Network, Training school, Prato, Italy.
2014 - Gruppo Italiano per lo Studio della Neuromorfologia (G.I.S.N.), XXIV National Congress G.I.S.N., Bologna, Italy.

HONORS

- 2020** - 4th Place Prize for 9th edition of 'Premio Nazionale Giovediscienza'.
2019 - Nominated for 'Aldo Fasolo Award', communication in Neuroscience.
2019 - Price awarded for best poster presented at 10th International meeting Steroids and Nervous system, Turin, Italy.
2014/2015 - Grant EDISU Piemonte, University of Turin.
2013 - Grant for thesis of Master's Degree by ECOMAP.

TEACHING ACTIVITIES

A.Y. 2019/20, 2020/21 Contract professor of *Neuroanatomy and Imaging*; University of Turin, Department of Life Sciences and Systems Biology, degree course of Cellular and Molecular Biology.

A.Y. 2020/21 Teaching assistant of *Human Anatomy*; University of Turin - Faculty of Medicine, Department of Surgical Sciences, degree course of "Tecniche Audiometriche", of "Tecniche Audioprotesiche" and of Neurophysiopathology with Dr. Luca Guglielmo PRADOTTO.

A.Y. 2017/18, 2018/19, 2019/20 Teaching assistant of *Human Anatomy*; University of Turin - Faculty of Medicine, Department of Surgical Sciences, degree course of "Tecniche Audiometriche", of "Tecniche Audioprotesiche" and of Neurophysiopathology with Prof. Giancarlo PANZICA.

A.Y. 2017/18 to 2020/21 Contract professor of *Histology*; International College of Osteopathic Medicine (ICOM), Turin, Italy.

ORGANISATION OF SCIENTIFIC MEETINGS

- 2021** Virtual steroids and nervous system, Turin, Italy.
2021 Virtual Satellite: Allopregnanolone and its synthetic analogues: from bench to clinical strategies for neuropathology, Turin, Italy
2019 10th International meeting Steroids and Nervous system, Turin, Italy
2019 Satellite Symposium: Steroids and the Nervous System: Past and Future, Turin, Italy
2017 9th International meeting Steroids and Nervous system, Turin, Italy
2017 Satellite Symposium: Neuroactive steroids and metabolic axis, Turin, Italy
2015 8th International meeting Steroids and Nervous system, Turin, Italy
2015 Satellite Symposium: Gender Differences on Neurodegenerative and Psychiatric Disorders, Turin, Italy

ISTITUTIONAL RESPONSABILITIES

2018 - Elected member of 'Consiglio di Dip. Neuroscienze 'Rita Levi Montalcini', University of Turin, Italy.

MEMBER OF SCIENTIFIC SOCIETIES

since 2014 - Gruppo Italiano Studio Neuromorfologia (GISN)
since 2016 - Società Italiana Neuroscienze (SINS)

MAJOR COLLABORATIONS

Prof. Daniela Grassi, Universidad Europea de Madrid, Basic Biomedical Science, Madrid (Spain).
Prof. Paloma Collado, National Distance Education University (UNED), Department of Psychology, Madrid (Spain).
Prof. Luis Miguel Garcia Segura, Cajal Institute, Neuroactive steroids, Madrid (Spain).
Dr. Matthieu Keller, INRA, Neuroendocrinologie des Interactions et Comportements Sexuels, Tours (France).
Dr. Marco Lucio Lolli, University of Turin, Department of Drug Science and Technology, Turin (Italy).

DISSEMINATION ACTIVITIES

15/10/2020 *Into the brain - connessioni che non ti aspetti. Plastica, fitoestrogeni e disfunzioni ormonali. Non solo interferenti endocrini di origine chimica: anche i fitoestrogeni di origine naturale, come la soia, possono essere un rischio per la salute.* Festival 2020 dell'innovazione e della scienza. Chieri (TO), Italy.

27/09/2019 *IE - Interferenti endocrini. Quando la chimica è un rischio per la salute e l'ambiente.* Notte Europea dei ricercatori. Turin, Italy.

07/03/2019 *Forgiare il cervello: l'influenza esterna sul comportamento.* Brain Storm, EMSA, Orbassano, TO, Italy.

16/05/2017 *Alla base di tutto... è sempre questione di sesso: 50 sfumature di brain.* Pint of science 2017, Turin, Italy.

08/01/2016 School project. *Malattie Sessualmente Trasmissibili*, Fidas, Salandra, MT, Italy.

26/10/2014 School project. *La prevenzione all'alcolismo e tabagismo*, Fidas, Salandra, MT, Italy.

25/09/2015 *Le Nostre Ricerche al Microscopio.* Notte Europea dei ricercatori, Turin, Italy.

2014/today *PorteAperte@NICO Capire il cervello per curarlo.* NICO, Orbassano, TO, Italy.

LIST OF PUBLICATIONS

15) R. Llorente, **M. Marraudino**, B. Carrillo, B. Bonaldo, J. Simon-Areces, P. Abellanas-Pérez, M. Rivero-Aguilar, J. M. Fernandez-Garcia, H. Pinos, L.M. Garcia-Segura, P. Collado, D. Grassi. G protein-coupled estrogen receptor immunoreactivity fluctuates during the estrous cycle and show sex differences in the amygdala and dorsal hippocampus. *Frontiers in Endocrinology*. 2020 July 7;11:537.
doi: 10.3389/fendo.2020.00537.

14) **M. Marraudino**, B. Carrillo, B. Bonaldo, R. Llorente, E. Campioli, I. Garate, H. Pinos, L.M. Garcia-Segura, P. Collado, D. Grassi. G protein-coupled estrogen receptor immunoreactivity in the rat hypothalamus is widely distributed in neurons, astrocytes and oligodendrocytes, fluctuates during the estrous cycle and is sexually dimorphic. *Neuroendocrinology*. 2020 June.
doi: 10.1159/000509583.

13) A. Farinetti, D. Aspesi, **M. Marraudino**, E. Marzola, G. Abbate-Daga, S. Gotti. Maternal separation in ABA rats promotes cell proliferation in the dentate gyrus of the hippocampus. *Neuroscience*. 2020 Apr;62(3):297-309.
doi: 10.1016/j.neuroscience.2020.08.005.

12) G. Ponti, A. Farinetti, **M. Marraudino**, G.C. Panzica, S. Gotti. Postnatal genistein administration selectively abolishes sexual dimorphism in specific hypothalamic dopaminergic system in mice. *Brain Research*. 2019 Dec 1;1724:146434.
doi: 10.1016/j.brainres.2019.146434.

11) A. Farinetti, D. Aspesi, **M. Marraudino**, E. Marzola, F. Amianto, G. Abbate Daga, S. Gotti. Sexually dimorphic behavioral effects of maternal separation in anorexic rats. *Developmental Psychobiology*. 2019 July 62(3):297-309.
doi:10.1002/dev.21909

10) **M. Marraudino**, A. Farinetti, MA Arevalo, S. Gotti, G.C. Panzica, L.M. Garcia-Segura. Sexually Dimorphic Effect of Genistein on Hypothalamic Neuronal Differentiation in Vitro. *International Journal of Molecular Sciences*. 2019 May 18;20(10).
doi: 10.3390/ijms20102465.

9) N. Lagunas, **M. Marraudino**, M. de Amorim, H. Pinos, P. Collado, G.C. Panzica, L.M. Garcia Segura, D. Grassi. Estrogen receptor beta and G protein-coupled estrogen receptor 1 are involved in the acute estrogenic regulation of arginine-vasopressin immunoreactive levels in the supraoptic and paraventricular hypothalamic nuclei of female rats. *Brain Research*. 2019 Jun 1;1712:93-100. doi: 10.1016/j.brainres.2019.02.002.

8) **M. Marraudino**, B. Bonaldo, A. Farinetti, G.C. Panzica, G. Ponti, S. Gotti. Metabolism disrupting chemicals and alteration of neuroendocrine circuits controlling food intake and energy metabolism. *Frontiers in Endocrinology*. 2019 Jan 9;9:766.
doi: 10.3389/fendo.2018.00766.

7) A. Farinetti, **M. Marraudino**, G. Ponti, G.C. Panzica, S. Gotti. Chronic treatment with tributyltin induces sexually dimorphic alterations of POMC system and activated leptin receptor in the hypothalamic Arcuate nucleus of adult mice. *Cell and Tissue Research*. 2018 Dec;374(3):587-594.
doi: 10.1007/s00441-018-2896-9.

- 6) G. Ponti, A. Farinetti, **M. Marraudino**, G.C. Panzica, S. Gotti. Sex Steroids and Adult Neurogenesis in the Ventricular-Subventricular Zone. *Frontiers in Endocrinology*. 2018 Apr 9;9:156.
doi: 10.3389/fendo.2018.00156.
- 5) **M. Marraudino**, M. Martini, S. Trova, A. Farinetti, G. Ponti, S. Gotti, G.C. Panzica. Kisspeptin system in ovariectomized mice: Estradiol and progesterone regulation. *Brain Research*. 2018 Jun 1;1688:8-14.
doi: 10.1016/j.brainres.2018.03.014.
- 4) L. Oboti, S. Trova, R. Schellino, **M. Marraudino**, N.R Harris, O.M Abiona, M. Stampar, W. Lin, P. Peretto. Activity Dependent Modulation of Granule Cell Survival in the Accessory Olfactory Bulb at Puberty. *Frontiers in Neuroscience*. 2017 May 23;11:44.
doi: 10.3389/fnana.2017.00044.
- 3) **M. Marraudino**, D. Miceli, A. Farinetti, G.C. Panzica, S. Gotti. The Kisspeptin Innervation of the Hypothalamic Paraventricular Nucleus: Sexual Dimorphism and Effect of Estrous Cycle in Female Mice. *Journal of Anatomy*. 2017 Jun;230(6):775-786.
doi: 10.1111/joa.12603.
- 2) G. Ponti, A. Rodriguez-Gomez, A. Farinetti, **M. Marraudino**, F. Filice, B. Foglio, G. Sciacca, G.C.Panzica, S.Gotti. Early postnatal genistein administration permanently affects nitrenergic and vasopressinergic systems in a sex-specific way. *Neuroscience*. 2017 Mar 27;346:203-215. doi:10.1016/j.neuroscience.2017.01.024.
- 1) E. Bo, A. Farinetti, **M. Marraudino**, D. Sterchele, C. Eva, S. Gotti, G.C. Panzica. Adult exposure to tributyltin affects hypothalamic neuropeptide Y, Y1 receptor distribution, and circulating leptin in mice. *Andrology*. 2016 Jul;4(4):723-34.
doi: 10.1111/andr.12222.

ORAL PRESENTATIONS

- M. Marraudino**, B. Bonaldo, M. Paiano, G. Tanese, G.C. Panzica, H. Pinos, P. Collado, S. Gotti. Organizational role of estradiol on hypothalamic circuits that control feeding behavior and energy metabolism. *Morfologia e dintorni 3° incontro nazionale*. September 26, 2020.
- M. Marraudino**, Genistein, a new metabolic endocrine disruptor: overview of postnatal administration on Hypothalamic Neuroendocrine Circuits. *Morfologia e dintorni 2° incontro nazionale*. Turin, Italy, February 22/23, 2020.
- M. Marraudino**, A. Farinetti, MA Arevalo, S. Gotti, G.C. Panzica, L.M. Garcia-Segura. Sexually dimorphic effect of genistein on hypothalamic neuronal differentiation in vitro. 29th National Conference of the Italian Group for the Study of Neuromorphology (G.I.S.N.), Bari, Italy, November 15-16, 2019.
- M. Marraudino**, M. Paiano, B. Bonaldo, A. Farinetti, G. Ponti, G.C. Panzica, P. Collado, S. Gotti. Postnatal treatment of estrogen receptor antagonists alters sexual and feeding behavior in male and female mice. 45th Workshop on: Sex Differences, Dimorphisms, Divergences: Impact on Brain and Behavior in Health and Disease, Erice, Trapani, Italy, May 20/25, 2019.
- M. Marraudino**, B. Carrillo, E. Campioli, B. Bonaldo, H. Pinos, LM. Garcia-Segura, G.C. Panzica, P. Collado, D. Grassi. GPER neuronal and glial cells expression in the hypothalamus of adult rats: sexually dimorphic distribution and differences during the estrous cycle. XXVIII Convegno Nazionale G.I.S.N., Florence, Italy, November 30 – December 1, 2018.
- M. Marraudino**, G. Ponti, A. Farinetti, S. Gotti, M. Keller, P. Collado, G.C. Panzica. The sexually dimorphic obesogenic effect of early postnatal genistein administration on CD1 mice. IX International Meeting Steroids and Nervous System, Turin, Italy, February 11/15, 2017.
- M. Marraudino**, G. Ponti, A. Farinetti, S. Gotti, M. Keller, P. Collado, G.C. Panzica. The sexually dimorphic obesogenic effect of early postnatal genistein administration on CD1 mice. XXVI Convegno Nazionale G.I.S.N., Verona, Italy, November 24/25, 2016.
- M. Marraudino**, A. Farinetti, E. Troisi, D. Miceli, S. Gotti, G.C Panzica (2015) Kisspeptin and Paraventricular Nucleus: effects of bisphenol A on CD1 female mice. XXV Convegno Nazionale G.I.S.N., Rome, Italy, November 27/28, 2015.
- M. Marraudino**, A. Farinetti, D. Miceli, S. Gotti, G.C Panzica (2014) Kisspeptin and food intake: neuroendocrine relationships at the level of the hypothalamic paraventricular nucleus. COST Action, Joint Scientific Meeting & Training School, Monash University Prato Center, Prato, Italy, April 27/29, 2015.
- M. Marraudino**, A. Farinetti, D. Miceli, S. Gotti, G.C Panzica (2014) Kisspeptin and food intake: neuroendocrine relationships at the level of the hypothalamic paraventricular nucleus. XXIV Convegno Nazionale G.I.S.N., Bologna, Italy, November 28/29, 2014.