


PERSONAL INFORMATION	Eleonora Centofante
	 Department of Biology and Biotechnology "C. Darwin" P.le Aldo Moro 5 (CU026), 00185 Rome, Italy
CURRENT POSITION SSD	Research fellow awarded for Horizon Europe Award M-PSI/02 (Psicobiologia e psicologia fisiologica)
RESEARCH TOPICS / EXPERIENCES	<ul style="list-style-type: none"> • Neural circuits of spatial memory • Circuit dynamics and cellular topographical organization during spatial learning

EDUCATION AND TRAINING

24/02/2017	PhD in Psychobiology and Psychopharmacology Sapienza University of Rome, Italy.
27/03/2013	Master cum laude in Neurobiology Sapienza University of Rome, Italy.

WORK EXPERIENCE

21/12/2021-present	Research fellow awardee for Horizon Europe Award Dept. of Biology and Biotechnology C.Darwin Sapienza University of Rome
1/02/2020-10/10/2021	Postdoctoral research fellow - Biophysics Institute- National Research Center (IBF-CNR).
1/06/2018-31/01/2020	Postdoctoral research fellow - Center for Research in Neurobiology "D. Bove" Neuroscience (CRiN), Biology and Biotechnology department Sapienza University of Rome, Italy.
26/06/2017-28/03/2018	Postdoctoral research fellow Boston Children's Hospital- Harvard Medical MA, United States.
21/01/2014-30/06/2015	Lab manager/ Research assistant Boston Children's Hospital - Harvard Medical School, MA, United States.

OTHER QUALIFICATIONS

07-09/2021	<u>Seminari formativi organizzati dal Centro ricerca e servizi Sperimentazione Preclinica e Benessere Animale</u> Sapienza University of Rome
01/2011	AISAL course "The use of statistics in biomedical research " CERC, Rome
11/2012	FELASA course "Science of laboratory animals" CNR, Rome
01/2017	"3Rs: Scientific aspects and Socio-political implications" GlaxoSmithKline, Rome
07/2012	Summer School of the Giovanni Armenise- Harvard Foundation Harvard Medical School/ Boston Children's Hospital Boston, USA

TEACHING EXPERIENCE

2018-present	Psychobiology and Psychopharmacology practice
2020-2021	Member of the examination board for Techniques of study animal behaviour; Psychobiology; Psychopharmacology and Neurobiology of Memory.

FELLOWSHIPS

2021	Horizon Europe Award- Be FOR ERC- Sapienza University
2019	Young investigator grant (Grant di avvio alla Ricerca)- Sapienza University
2018	Travel fellowship from ISDN (International Society for Developmental Neuroscience)

NEUROSCIENCE SOCIETY MEMBERSHIPS

2019-present	Società Italiana di Neuroscienze (SINS), European Brain and Behavioral Society (EBBS), Federation of European Neuroscience (FENS)
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MAIN RESEARCH EXPERIENCE

2021-2022	Research project: Investigation of the role of cortico- striatal circuits in consolidation and retrieval of long-term spatial memory. Sapienza, BE-FOR_ERC Principal Investigator, 50.000€.
2019-2020	Research Project: Mapping neural ensembles activated during spatial navigation. Sapienza, Grant di Avvio alla Ricerca, Postdoc, 2.500€.
2017-2018	Research project: Electrophysiological and behavioural evaluation of an early dietary enrichment on visual cortical development and aging in control mice with particular interest in Parvalbumin positive neurons and Perineuronal nets development (Harvard Medical School) Prof. Puder Mark and Dr. Fagiolini Michela. Postdoc
2013-2017	Research project: Analysis of visual cortical function and circuits in a mouse model of Rett Syndrome. Investigation of visual evoked potential and single unit response in Mecp2 Heterozygous females at the baseline and after a pharmacological treatment and (Le Blanc JJ., et al 2015). Analysis of which circuits are responsible for this impairment. (Harvard Medical School/ Boston Children's Hospital) Prof. Hensch T.K. and Dr. Michela Fagiolini. PhD student.
2011-2013	Research project: Characterization of a mouse model of μ - opioid receptor polymorphism (OPRM1-A118G). More in detail, the goal of my research was to investigate how the presence of this polymorphism could affect social behaviour and stress response during development. (National Research Council) Dr. Francesca D'Amato. Undergraduate student.

 ADDITIONAL INFORMATION

Peer-reviewed publications

Centofante E, Fralleoni L, Lupasco C, Migliore M, Rinaldi A, Mele A. Different hippocampal activation pattern following massed or distributed spatial training in mice. In preparation

Centofante E, Anez-Bustillos L, Baker M, Hodgson N, Hensch TK, Puder M, Fagiolini M. Short term Omega-3 enriched diet prevents the age- dependent loss of parvalbumin positive cells in the visual cortex resulting in an increase of visual acuity. Submitted to Nature Aging

Mastrorilli V, **Centofante E**, Antonelli F, Rinaldi A, Mele A. The neural substrate of spatial memory depends on the distribution of the training sessions. Proc Natl Acad Sci U S A. Apr. 2022;119(14)

Simon A, Picard N , D'Andrea V, Chang E, Leffler J, **Centofante E**, Taylor M, Hensch TK, Panzeri S, Chen C, Fagiolini M. Visual recovery reflects cortical MeCP2 sensitivity in Rett Syndrome. Under revision, Ann Neurology

Torromino G, Autore L, Khalil V, Mastrorilli V, Griguoli M, Pignataro A **Centofante E**, Biasini GM, De Turre V, Ammassari-Teule M, Rinaldi A, Mele A. Offline ventral subiculum-ventral striatum serial communication is required for spatial memory consolidation. Nat Commun. 2019 Dec 16;10(1)

Patrizi A, Picard N, Simon AJ, Gunner G, **Centofante E**, Andrews NA, Fagiolini M. Chronic Administration of the N-Methyl-D-Aspartate Receptor Antagonist Ketamine Improves Rett Syndrome Phenotype. Biol Psychiatry. 2016 May 1;79(9):755-64.

Mardinly AR, Spiegel I, Patrizi A, **Centofante E**, Bazinet JE, Tzeng CP, Mandel-Brehm C, Harmin DA, Adesnik H, Fagiolini M, Greenberg ME. Sensory experience regulates cortical inhibition by inducing IGF1 in VIP neurons. Nature. 2016 Mar 17;531(7594):371-5.

Garbugino L, **Centofante E**, D'Amato FR. Early Social Enrichment Improves Social Motivation and Skills in a Monogenic Mouse Model of Autism, the Oprm1 (-/-)Mouse. Neural Plast. 2016;2016:5346161.

LeBlanc JJ, DeGregorio G, **Centofante E**, Vogel-Farley VK, Barnes K, Kaufmann WE, Fagiolini M, Nelson CA. Visual evoked potentials detect cortical processing deficits in Rett syndrome. Ann Neurol. 2015 Nov;78(5):775-86.

Luchetti A, Oddi D, Lampis V, **Centofante E**, Felsani A, Battaglia M, D'Amato FR. Early handling and repeated cross-fostering have opposite effect on mouse emotionality. Front BehavNeurosci. 2015 Apr 21;9:93.

Rome, 21/12/2021