

# PAOLA SGADÒ

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## EDUCATION/QUALIFICATION

- **Jan 2022 – present** Temporary Assistant Professor (Researcher type A) in Physiology (BIO/09) – Center for Mind/Brain Science (CIMEC) – University of Trento, Italy.
- **Jan 2017 – present** Principal Investigator, Molecular and Cellular Cognition (mc2) group – Center for Mind/Brain Science (CIMEC) – University of Trento, Italy.
- **Jan 2017 – Jan 2022** Temporary Assistant Professor (Researcher type A) in Physiology (BIO/09) – Center for Mind/Brain Science (CIMEC) – University of Trento, Italy.
- **Jan 2017 – 2019** Member of the PhD Committee in “Cognitive and Brain Sciences” – Center for Mind/Brain Sciences (CIMEC) – University of Trento, Italy.
- **Jul '15 – Dec '16** Senior PostDoc at the Animal Cognition and Neuroscience Laboratory, Center for Mind/Brain Sciences (CIMEC) – University of Trento, Italy.
- **Jul '10 – Dec '14** Marie Curie COFUND “People” Incoming PostDoc 2009 Research Fellow. EnCORT Project [149.000 €]. Centre for Integrative Biology (CIBIO), University of Trento, Italy.
- **Aug '10 – Jun '11** Maternity leave
- **Jun '09 – Jun '10** Senior PostDoc in Laboratory of Molecular Neuropathology, Centre for Integrative Biology (CIBIO), University of Trento, Italy.
- **Jun '07 – May '09** PostDoc in Neurogenetics of Epilepsy at the Neurogenetics lab, Child Neurology Unit, “A. Meyer” Children’s Hospital, Florence, Italy.
- **May '05 – Apr '07** PostDoc at the Neuroscience Department, Pharmacology section, University of Pisa, Italy.
- **25th Sept 2006** PhD awarded “magna cum laude” - University of Heidelberg, Germany. Title: “Development and maintenance of mesencephalic dopaminergic neurons: role of the *Engrailed* and *Pbx1* transcription factors”. Supervisors: Prof. K. Beyreuther and Prof. H. Monyer.
- **Feb '00 – Dec '04** PhD student under the supervision of Dr. Horst Simon, at the Interdisciplinary Centre for Neuroscience, Department of Neuroanatomy III, University of Heidelberg, Germany.
- **Apr '99 – Feb '00** Research assistant in Developmental Biology at the Cellular and Developmental Biology Lab, Biochemistry and Physiology Department, University of Pisa, Italy. Supervisor: Dr. F. Cremisi.
- **26th April 1999** Master in Biological Science – Graduation with honour “110/110 cum laude”, at the University of Pisa, Italy. Thesis: “PC3 over-expression, driven *in vivo* by retroviral vectors, affects terminal differentiation of rat cortical precursors”. Supervisor Dr. F. Cremisi., Scuola Normale Superiore, Pisa.
- **Apr '96 – Apr '99** Undergraduate research training at the Cellular and Developmental Biology Lab, Biochemistry and Physiology Department, University of Pisa, Italy.
- **Nov '92 – Apr '99** Master Degree Course in Biological Science, University of Pisa, Italy.

## POSITIONS AND HONORS

- Apr '17** Invited Speaker – “Wiring the Brain” Cold Spring Harbor Laboratory meeting.
- Jul '10** Marie Curie COFUND “People” Incoming PostDoc Research Fellowship.
- Oct '09** Invited Speaker – XIII Italian Neuroscience Society National Congress, Milan, Italy.
- Feb '09** Invited Speaker – LIMPE Seminars: “Old and new dopamine agonists in Parkinson's disease: a reappraisal”.
- Jan '09** Invited Speaker – Italian League for Epilepsy Meeting, Genetic Board, Rome, Italy.

**Sep '07** Invited Speaker – LIMPE Seminars: “Experimental models of Parkinson’s disease”  
**25th Sept 2006** Dr. Rer. Nat. “magna cum laude” – University of Heidelberg, Germany.  
**Nov '06** Invited Speaker – Best Oral presentation – XXXIII LIMPE Annual Meeting, Stresa, Italy  
**Sept '03** Invited Speaker – X Italian Neuroscience Society National Congress, Pisa, Italy.

## RESEARCH EXPERIENCE

- **Jan'17 – present** Principal Investigator at the Molecular and Cellular Cognition (mc<sup>2</sup>) group investigating the molecular and cellular components of cognitive processes. The main research objectives are to develop animal models to study face processing and biological motion detection deficits in ASD and investigate the underlying neurobiological mechanisms through behavioural, neuroanatomical and molecular analyses. To this purpose we have established a chick model of ASD, using valproic acid embryonic (*in ovo*) injections, and we are currently complementing the behavioural analysis with neurobiological and molecular approaches. To my knowledge the chick VPA model is the first animal model to investigate the neurobiological bases of ASD through behavioral markers analogous to early social-orienting behavior in humans. Recently, in collaboration with Prof. Schusser, we developed genetic strategies to model ASD in domestic chicks using CRISPR/Cas9 and study the neurobiological bases of face processing in a genetic model of ASD based on Fmr1 gene deletion. We are also broadening the spectrum of model species investigated to study the neurobiological bases of social-orienting behaviour in rodents, establishing new behavioural paradigms in collaboration with Dr. Alessandro Gozzi, IIT. Recently, in collaboration with Prof. Valeria Anna Sovrano and Dr. Andrea Messina at CIMEC we are studying the neurobiological bases of brain asymmetry in ASD using ASD zebrafish models.
- **Jul '15 – Dec '16** PostDoc research experience on “Neurobiological bases of animal behaviour” at the Centre for Mind/Brain Science, University of Trento. The research aimed to study the neurobiological mechanisms underlying animal behavior using a combination of behavioural and neurobiological technique such as the expression of immediate early genes, electrophysiology, anatomy and molecular genetics.
- **Jul '10 – Dec '14** Marie Curie COFUND Incoming PostDoc 2009; EnCORT Project [149.000 €]. Project title: “Neurodevelopmental bases of ASD: cortical inhibitory system development in En2 knockout mice” at the Centre for Integrative Biology, University of Trento. The project aimed at analysing the effect of En2 mutation in the development of GABAergic interneurons. We found a significant loss of PV interneurons in the sensory cortices of En2 mutants already at postnatal day 10, accompanied by molecular alterations in the expression of ASD-related genes (Fmr1, mGluR5, BDNF and KCC2). Data suggest delayed maturation of cortical circuits in En2 mice and altered sensory processing and integration in these mice. Moreover, our transcriptome analysis revealed that En2 regulates a complex network of ASD-related genes, confirming and expanding the idea that ASD results from alterations of conserved transcriptional pathways.
- **Jun '09 – Jun '10** PostDoc research experience on “Neuroanatomical characterization of the En2 knock-out mice, a model for autistic spectrum disorders” at the Molecular Neuropathology lab, Centre for Integrative Biology, University of Trento, (Head Dr. Y. Bozzi). The project involved the set up a new research line regarding the characterization of En2 mutant phenotype in the forebrain. The results strengthen the hypothesis of a prominent role of GABAergic interneurons in the pathogenesis of ASD.
- **Jun '07 – May '09** PostDoc research experience on “Malformation of cortical development and epilepsy: genotype-phenotype correlation” at the Neurogenetics Lab, Child Neurology Unit, “A. Meyer” Children’s Hospital, Florence (Head Prof. R. Guerrini). The project aim was to identify new candidate genes for cortical malformations syndromes and to perform genotype-phenotype correlation using *in utero* electroporation and RNAi in rats [in collaboration with Dr. Carlos Cardoso at INSERM/INMED, Marseille].
- **May '05 – May '07** PostDoc research experience on “New experimental models for Parkinson’s disease” at the Neuroscience Department, University of Pisa (Head Prof. G.U. Corsini). Aim of the study was to investigate pre-symptomatic compensatory changes occurring in the brain upon chronic long-lasting degeneration. We assessed neurochemical, behavioural and electrophysiological changes in young and aged *EnHT* mice. Data suggest that, despite the early degeneration of DA cell bodies, frank behavioral deficits and synaptic plasticity alterations appear only in old mice and that the extracellular metabolism may have a prominent role in the establishment of these compensatory

changes. Overall the study suggests the EnHT mouse as a key model of nigrostriatal degeneration and supports its use in the study of neurorestorative therapies for Parkinson's disease.

- **Feb '00 – Dec '04** PhD project: "Development and maintenance of mesencephalic dopaminergic neurons: role of the *Engrailed* and *Pbx1* transcription factors". Aim of the project was to study the role of the *Engrailed* transcription factors in the development and maintenance of mesencephalic DA neurons and their interaction with their homeobox *Pbx1* cofactor. Supervisor: Dr. H.H. Simon, Interdisciplinary Centre for Neuroscience, Department of Neuroanatomy III, University of Heidelberg, Germany.
- **Apr '96 – Apr '99** Master Thesis: "*In vivo* PC3 overexpression by retroviral vector affects cell differentiation of rat cortical precursors." The project aimed at investigating the functional role of the anti-proliferative gene *PC3* (*Tis21*, *Btg2*) during development of the cerebral cortex, using *in utero* injection of replication incompetent retroviral vectors. Supervisor: Dr. F. Cremisi, Scuola Normale Superiore, Pisa.

### **Societies memberships**

Member of the Italian Neuroscience Society (SINS)

Member of the Federation of the European Neuroscience Societies (FENS)

### **Reviewing committees**

#### Peer-review Journals

Scientific Reports

Frontiers in Physiology

Frontiers in Behavioural Neuroscience

Neuroscience

Epilepsy Research

Research in Developmental Disabilities

International Journal of Molecular Sciences

Biochemical Science

Archives Italiennes de Biologie

#### Expert Panel Member

Expert Scientific Review Wellcome Trust

### **TEACHING EXPERIENCE**

- 2017 – present** Molecular and Cellular Neuroscience – Master in Cognitive Neuroscience  
University of Trento, Italy
- 2017 – 2020** Neurobiology of Brain Disorders – Master in Cognitive Neuroscience  
University of Trento, Italy
- 2016 – 2017** Current Issue in Neuroscience – Master in Cognitive Neuroscience  
University of Trento, Italy
- Jan '16 – Mar '16** Lecturer, Secondary School Teacher Ministerial Habilitation Course  
University of Trento, Italy.
- Feb '15 – Jun '15** Lecturer, Secondary School Teacher Ministerial Habilitation Course  
University of Trento, Italy
- Nov '14 – Feb '15** Assistant Lecturer, Physiology – Bachelor of Science in Biomolecular Sciences and  
Technology – University of Trento, Italy
- Apr '14 – Jul '14** Lecturer, Secondary School Teacher Ministerial Habilitation Course  
University of Trento, Trento, Italy
- Nov '13 – Feb '14** Assistant Lecturer, Physiology – Bachelor of Science in Biomolecular Sciences and  
Technology – University of Trento, Italy
- January 2013** Assistant Lecturer, Teachers Training Course, Natural Science Museum, Trento.
- Nov '11 – Feb '12** Assistant Lecturer, Physiology – Bachelor of Science in Biomolecular Sciences and  
Technology – University of Trento, Italy
- July 2006** Lecturer, Postgraduate School "Diagnosis and Treatment for Movement Disorders" –  
Università Cattolica del Sacro Cuore, Facoltà di Scienze della Formazione, Milano,  
Italy

## STUDENT SUPERVISION

### PhD student supervision

Nov '20 – present Alice Adiletta,

Jan '11 – Dec '14 Giulia Zunino, International PhD Program in Biomolecular Sciences, University of Trento. Project title: “Development and maturation of the GABAergic system in Engrailed-2 knockout mice, a model for autism spectrum disorders”. Advisor: Dr. **Sgadò P**; Supervisor: Dr. Bozzi Y.

Jul '12 – External PhD review Silvia Zoppi, “Study of the role of cannabinoid CB1 and CB2 receptors in stress-induced neuroinflammation”. Doctor Europaeus mention, Universidad Complutense de Madrid, Madrid, Spain.

### Master/Bachelor student supervision

Sept '19 – Jul '21 Francesca Moramarco – MSci in Medical Sciences

Sept '19 – Jul '21 Alessia Musa –

Sept '19 – Mar '21 Raffaele Specogna – Master Degree in Cognitive Science, Cognitive Neuroscience track – University of Trento, Supervisor: Dr. **Sgadò P**. “A molecular study on the influence of valproic acid on neural development and a venture in genome editing in domestic chicks”. Center for Mind/Brain Science.

Mar '19 – Dec '20 Francesca Marchetti – Master Degree in Psychology, Neuroscience track – University of Trento, Supervisor: Dr. **Sgadò P**. “La percezione del movimento biologico in modelli animali di disturbi del neurosviluppo: uno studio comportamentale sui topi e sui pulcini domestici”. Center for Mind/Brain Science.

Mar '18 – Oct '18 Chiara Spiazzi – Master Degree in Psychology, Neuroscience track – University of Trento, Supervisor: Dr. **Sgadò P**. “L'influenza dell'Acido Valproico sul comportamento sociale del pulcino di pollo domestico: interazione tra imprinting filiale e predisposizioni sociali”. Center for Mind/Brain Science.

Jan '18 – Oct '18 Samantha Predana – Master Degree in Psychology, Neuroscience track – University of Trento, Supervisor: Dr. **Sgadò P**. “L'influenza dell'acido valproico sulla preferenza per stimoli schematici di volto nel pulcino domestico”. Center for Mind/Brain Science.

Jan '18 – Jan '19 Alessandra Pross – Master Degree in Molecular and Medical Biotechnology – University of Verona, Supervisor: Dr. **Sgadò P**, Prof. Marina Bentivoglio. “A new model of autism spectrum disorder in domestic chicks (*Gallus gallus domesticus*): behavioural, neuroanatomical and molecular analysis”. Center for Mind/Brain Science.

Jun '13 – Sep '13 Fabiana Cro – Bachelor of Science in Biomolecular Sciences and Technologies, University of Trento, co-supervisors: Dr. **Sgadò P**, Dr. Messina A, Dr. Bozzi Y. “Expression of Engrailed 2 in the developing mouse retina”. Centre for Integrative Biology, University of Trento.

Sep '12 – Dec '12 Marika Maggia – Bachelor of Science in Biomolecular Sciences and Technologies, University of Trento, co-supervisors: Dr. **Sgadò P**, Dr. Bozzi Y. “Sviluppo postnatale dei neuroni GABAergici nei topi mutanti per il gene Engrailed-2”. Centre for Integrative Biology, University of Trento.

Jan '12 – Mar '12 Ilaria Zanella – Bachelor of Science in Biomolecular Sciences and Technologies, University of Trento, co-advisors: Dr. **Sgadò P**, Dr. Messina A, supervisor Dr. Bozzi Y. “Studio dell'espressione dei geni Engrailed nelle retine di topo (*Mus musculus*)”. Centre for Integrative Biology, University of Trento.

Jun '06 – Apr '07 Silvia Zoppi, Master Degree in Medicine and Surgery, University of Pisa, advisor: Dr. **Sgadò P**, supervisor: Prof. Corsini G.U. “Un nuovo modello sperimentale della malattia di Parkinson: analisi dei meccanismi di compenso mediante lo studio dell'espressione genica dei principali neurotrasmettitori a livello dei gangli della base”. Dept. Neuroscience, Section Pharmacology, University of Pisa.

Nov '05 – Mar '07 Chiara Fantacci, Master Degree in Biology, University of Pisa, co-supervisors: Dr. **Sgadò P**, Prof. Corsini G.U. “Alterazioni della neurotrasmissione dopaminergica in topi transgenici Engrailed doppi eterozigoti”. Dept. Neuroscience, Sect. Pharmacology, University of Pisa.

## LIST OF PEER-REVIEWED PUBLICATIONS [# corresponding authorship]

(Google Scholar h-index: 14)

1. Adiletta, A., Pross, A., Taricco, N., **Sgadò, P#**. Embryonic valproate exposure alters mesencephalic dopaminergic neurons distribution and septal dopaminergic gene expression in domestic chicks. *Front Integrat Neurosci*, *in press*.
2. Adiletta, A., Pedrana, S., Rosa-Salva, O., **Sgadò, P#**. Spontaneous Visual Preference for Face-Like Stimuli Is Impaired in Newly-Hatched Domestic Chicks Exposed to Valproic Acid During Embryogenesis. *Front Behav Neurosci*, 2021, 15, 733140.
3. Messina, A., Boiti, A., Sovrano, V.A., **Sgadò, P#**. Micromolar valproic acid doses preserve survival and induce molecular alterations in neurodevelopmental genes in two strains of zebrafish larvae. *Biomolecules*, 2020, 10(10), pp. 1–12, 1364.
4. Provenzano, G., Gilardoni, A., Maggia, M., Pernigo, M., **Sgadò, P**, Casarosa, S., Bozzi, Y. Altered expression of gabaergic markers in the forebrain of young and adult engrailed-2 knockout mice. *Genes*, 2020, 11(4), 384.
5. Lorenzi, E, Pross, A, Rosa Salva, O, Versace, E, **Sgadò, P#**, & Vallortigara, G# (2019). Embryonic Exposure to Valproic Acid Affects Social Predispositions for Dynamic Cues of Animate Motion in Newly-Hatched Chicks. *Frontiers in Physiology*, 10, 501.
6. **Sgadò P#**, Rosa-Salva O, Versace E, Vallortigara G. Embryonic Exposure to Valproic Acid Impairs Social Predispositions in Newly-Hatched Chicks. *Scientific Reports* 2018, 8, 5919.
7. Versace E, Eriksson A, Rocchi F, Castellan I, **Sgadò P**, Haase A. Physiological and behavioral responses in *Drosophila melanogaster* to odorants present at different plant maturation stages. *Physiology & behaviour* 2016; 163, 322-331.
8. Zunino G, Messina A, **Sgadò P**, Baj G, Casarosa S, Bozzi Y. Brain-derived neurotrophic factor signaling is altered in the forebrain of Engrailed-2 knockout mice. *Neuroscience* 2016; 324, 252.
9. Provenzano G\*, **Sgadò P\***, Genovesi S, Zunino G, Casarosa S, Bozzi Y: Hippocampal dysregulation of FMRP/mGluR5 signaling in engrailed-2 knockout mice: a model of autism spectrum disorders. *NeuroReport* 2015; 26:1101. [\*equally contributing authors]
10. Provenzano G, Pangrazzi L, Poli A, **Sgadò P**, Berardi N, Bozzi Y. Reduced phosphorylation of synapsin I in the hippocampus of Engrailed-2 knockout mice, a model for autism spectrum disorders. *Neuroscience* 2015; 286:122.
11. Provenzano G, Pangrazzi L, Poli A, Pernigo M, **Sgadò P**, Genovesi S, Zunino G, Berardi N, Casarosa S, Bozzi Y. Hippocampal dysregulation of neurofibromin-dependent pathways is associated with impaired spatial learning in Engrailed 2 knockout mice. *J Neuroscience* 2014; 34(40):13281.
12. Provenzano G, Clementi E, Genovesi S, Scali M, Tripathi PP, **Sgadò P** and Bozzi Y. GH dysfunction in Engrailed-2 knockout mice, a model for autism spectrum disorders. *Front Pediatr* 2014; 2:92.
13. Allegra, M, Genovesi, S, Maggia, M, Cenni, MC, Zunino, G, **Sgadò, P**, Caleo, M and Bozzi, Y. Altered GABAergic markers, increased binocularity and reduced plasticity in the visual cortex of Engrailed-2 knockout mice. *Front Cell Neurosci* 2014; 8:163.
14. **Sgadò P#**, Provenzano G\*, Dassi E, Adami V, Zunino G, Genovesi S, Casarosa S, Bozzi Y: Transcriptome profiling in engrailed-2 mutant mice reveals common molecular pathways associated with autism spectrum disorders. *Mol Autism* 2013; 4:51. [\*equally contributing authors]
15. **Sgadò, P**, Genovesi, S, Kalinovsky, A, Zunino, G, Macchi, F, Allegra, M, Murenu, E, Provenzano, G, Tripathi, PP, Casarosa, S, Joyner AL, Bozzi Y. Loss of GABAergic neurons in the hippocampus and cerebral cortex of Engrailed-2 null mutant mice: implications for autism spectrum disorders. *Exp Neurol* 2013; 247:496.
16. Provenzano G, Zunino G, Genovesi S, **Sgadò P**, Bozzi Y (2012). Mutant mouse models of autism spectrum disorders. *Dis Markers*. 2012; 33(5):225. [review]
17. **Sgadò P#**, Ferretti E, Grbec D, Bozzi Y, Simon HH. The atypical homeoprotein Pbx1a participates in the axonal pathfinding of mesencephalic dopaminergic neurons. *Neural Dev*. 2012; 7:24.
18. **Sgadò P**, Dunleavy M, Genovesi S, Provenzano G, Bozzi Y. The role of GABAergic system in neurodevelopmental disorders: a focus on autism and epilepsy. *Int J Physiol Pathophysiol Pharmacol*. 2011; 3(3):223.
19. **Sgadò P#**, Viaggi C, Pinna A, Marrone C, Vaglini F, Pontis S, Mercuri NB, Morelli M, Corsini GU. Behavioral, neurochemical, and electrophysiological changes in an early spontaneous mouse model of nigrostriatal degeneration. *Neurotox Res* 2011; 20(2):170.
20. Alavian KN, **Sgadò P**, Alberi L, Subramaniam S, Simon HH. Elevated P75NTR expression causes death of engrailed-deficient midbrain dopaminergic neurons by Erk1/2 suppression. *Neural Dev* 2009; 4:11.

21. Tripathi PP\*, **Sgadò P\***, Scali M, Viaggi C, Casarosa S, Simon HH, Vaglini F, Corsini GU, Bozzi Y. Increased susceptibility to kainic acid-induced seizures in Engrailed-2 knockout mice. *Neuroscience* 2009; 159(2):842. [\*equally contributing authors]
22. **Sgadò P#**, Viaggi C, Fantacci C, Corsini GU. Characterization of the Engrailed mutant mice as experimental models for Parkinson's disease. *Parkinsonism Relat Disord* 2008; 14 S2:S103.
23. Belcari N, Del Guerra A, Bartoli A, Bianchi D, Lazzarotti M, Sensi L, Menichetti L, Lecchi M, Erba PA, Mariani G, Corsini GU, and **Sgadò P**. Evaluation of the performance of the YAP-(S)PET scanner and its application in neuroscience. *Nucl Instrum Methods Phys Res A*. 2007; 571:18.
24. Viaggi C, Vaglini F, Pardini C, **Sgadò P**, Caramelli A, Corsini GU. CYP 2E1 mutant mice are resistant to DDC-induced enhancement of MPTP toxicity. *J Neural Transm Suppl* 2007; 72:159.
25. Ceravolo R, **Sgadò P**, Frosini D, Corsini GU. Assessing neuroprotection in Parkinson's disease: from the animal models to molecular neuroimaging in vivo. *J Neural Transm Suppl*. 2006; 71:133.
26. **Sgadò P**, Albéri L, Gherbassi D, Galasso SL, Ramakers GM, Alavian KN, Smidt MP, Dyck RH, Simon HH. Slow progressive degeneration of nigral dopaminergic neurons in postnatal Engrailed mutant mice. *Proc Natl Acad Sci U S A* 2006; 103(41):15242.
27. Albéri L, **Sgadò P**, Simon HH. Engrailed genes are cell-autonomously required to prevent apoptosis in mesencephalic dopaminergic neurons. *Development* 2004; 131(13):3229.
28. Simon HH, Bhatt L, Gherbassi D, Sgadò P, Alberi L. Midbrain dopaminergic neurons: determination of their developmental fate by transcription factors. *Ann NY Acad Sci* 2003; 991:36.
29. Malatesta P\*, **Sgadò P\***, Caneparo L, Barsacchi G, Cremisi F. In vivo PC3 overexpression by retroviral vector affects cell differentiation of rat cortical precursors. *Brain Res Dev Brain Res* 2001; 128(2):181. [\*equally contributing authors]

#### Preprint

30. Versace, E. et al. Light-induced asymmetries in the embryonic retina are mediated by the vascular system and extracellular matrix. *Biorxiv* 2021.10.08.463575 (2021) doi:10.1101/2021.10.08.463575.

#### Book Chapters

1. Genovesi, S, Provenzano, G, Dunleavy, M, **Sgadò, P**, & Bozzi, Y. GABAergic Dysfunction in Autism and Epilepsy. In Dr. Valsamma Eapen (Ed.): *Autism - A Neurodevelopmental Journey from Genes to Behaviour*, InTech 2011, pages 25-48.
2. Parrini E, **Sgadò P**, Guerrini R. Single gene mutations causing epileptogenic malformations of the cerebral cortex. In: Philip A. Schwartzkroin, Editor(s)-in-Chief, *Encyclopedia of Basic Epilepsy Research*, Academic Press, Oxford, 2009, pages 1521-1530.
3. Parrini E, Mei D, Conti V, **Sgadò P**, Marini C, Guerrini R. Cortical dysplasias of genetic origin. In *Genetics of Epilepsy and Genetic Epilepsies*, G. Avanzini and J. Noebels (eds.) © 2009 John Libbey Eurotext, pages 1-20.

#### Book translation

1. *Principi di Neurobiologia* (2017). Parma V, Sgadò P.

#### Abstracts

1. FENS 2020 Virtual Forum – July 2020. E-poster title: “Altered social predispositions in chicks exposed to valproate during embryonic development: neurobiological correlates”.
2. 11<sup>th</sup> FENS Forum of Neuroscience – July 2018 – Berlin, Germany. Poster. “Altered social predispositions in chicks exposed to valproate during embryonic development”.
3. 8<sup>th</sup> EMCCS-FENS meeting – July 2018 – Berlin, Germany. Poster. “Altered social predispositions in chicks exposed to valproate during embryonic development”.
4. “Wiring the Brain” Cold Spring Harbor Laboratory meeting – April 2017 – Cold Spring Harbor, USA. Invited speaker. “Altered social predispositions in chicks exposed to valproate during embryonic development”.
5. International Meeting for Autism Research – IMFAR 2014 – May 2014, Atlanta, USA. “Transcriptome Profiling in Engrailed2 Knockout Mice Reveals Common Molecular Pathways Associated with Autism Spectrum Disorders”.
6. *Neuroscience 2013 – SfN Annual Meeting 2013 – November 2013, San Diego, USA*. “Transcriptome profiling in Engrailed2 knockout mice reveals convergent molecular pathology associated with ASD.”
7. “Wiring the Brain” Cold Spring Harbor Laboratory meeting – July 2013, Cold Spring Harbor, USA.

"Transcriptome profiling in Engrailed2 knockout mice reveals convergent molecular pathology associated with ASD"

8. Neuroscience 2012 – SfN Annual Meeting 2012 – October 2012, New Orleans, USA. "GABAergic system dysfunction and gene expression profiling alterations in Engrailed2 knockout mice, a model for autism spectrum disorders."

9. Jacques Monod Conference – "Mechanisms of Intellectual Disability: from genes to treatment", October 2012, Roscoff, France. "GABAergic system dysfunction and gene expression profiling alterations in Engrailed2 knockout mice, a model for autism spectrum disorders"

10. XIII National Congress of the Italian Society for Neuroscience – October 2009, Milano, Italy. Invited Speaker "Common developmental bases of epilepsy and autism: altered GABAergic innervation in mice lacking the homeobox gene Engrailed 2".

11. LIMPE Seminars 2009 – February 2009, Pisa, Italy. Invited Speaker "New experimental models of Parkinson's disease".

12. LICE 2009 – January 2009, Rome, Italy Invited Speaker "Delezione 6q ed eterotopia periventricolare. Individuazione di geni candidati"

13. LIMPE Seminars 2007 – September 2007, Alghero, Italy. Invited Speaker "Characterization of the Engrailed mutant mice as experimental models for Parkinson's disease".

14. LIMPE Annual Meeting 2006 - November 2006, Stresa, Italy. Short communication talk: "Perdita Progressiva Dei Neuroni Dopaminergici Della Substantia Nigra In Topi Mutanti Engrailed". Awarded as best short communication.

15. FENS Meeting 2006 – July 2006, Vienna, Austria. "Characterization of engrailed mutant mice as experimental model for Parkinson's Disease: neurochemical and neuropathological features"

16. ICPD 2005 – June 2005, Berlin, Germany. "Progressive postnatal degeneration of nigral dopaminergic neurons in engrailed mutant mice".

17. FENS Meeting 2004 – July 2004, Lisbon, Portugal. "Progressive postnatal degeneration of nigral dopaminergic neurons in engrailed mutant mice".

18. The Cell Biology of the Neuron - 33th Neuroscience Meeting, Nov. 2003 – New Orleans, USA. "Progressive loss of nigral dopaminergic neurons in En1+/-,En2-/- adult mice: a mouse model for Parkinson's Disease".

19. VII National Congress of the Italian Society for Neuroscience – September 2003, Pisa, Italy. Short communication talk. "Progressive postnatal loss of nigral dopaminergic neurons in mutant mice heterozygous null for Engrailed-1 and homozygous null for Engrailed-2".

20. Gordon Research Conference 2002 – Neural Development – Aug. 2002, Newport, USA. "Role of Pbx1 in the development of the midbrain dopaminergic neurons".

21. FENS Meeting 2002 – July 2002, Paris, France. "Role of Pbx1 in the development of the midbrain dopaminergic neurons".

22. 14th IIGB Meeting – Generating Cell Diversity in the Nervous System – Oct. 2001, Capri, Italy. "Role of Pbx-1 in the development of midbrain dopaminergic neurons".

#### Courses

1. Neuroscience School of Advanced Studies "Neural Circuits of Social Cognition" – June 2019 – San Servolo, Venice.

2. DOPAMINET 2012 – Summer school on dopaminergic neurons – Trieste, Italy

3. DOPAMINET 2009 – Summer school on dopaminergic neurons – Trieste, Italy

4. EPICURE 2008 – Training course "Study of the phenotype in experimental models of epilepsy" – Malta.

5. Applied Biosystems – "Applicazioni di Spettrometria di Massa in ambito chimico-clinico" – Italy.

6. CELBIO – RNAi and microRNA: nuove frontiere nella ricerca biomedica – Florence, Italy