

## CURRICULUM VITAE



### **Paolo Francesco Fabene**

**Date and Place of Birth:** 20 July 1973, Lodi, Italy

**Status:** Married

**Citizenship:** Italian

**Office address:** Dept of Department Neurological,  
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**Languages:** Italian, English, Portuguese.

## **EDUCATION & POSITIONS:**

- 1988-1993** Liceo Classico P.Verri in Lodi, Italy (Senior High School of Humanistic and Liberal Arts)
- 1993-1998** Student, Faculty of Psychology, University of Padua, Italy, Degree in Experimental Psychology, Course in Psychobiological Sciences
- July 1998** Degree at the University of Padua, Faculty of Psychology. Thesis: "Experimental study on the neural correlates of the sensory gating by the induction of the c-fos gene" (Supervisors: Prof. P. Bisiacchi, Prof. M. Bentivoglio, Prof. E.L.J.M. van Luijtelaar), with the mark: 110/110
- November 1998** Graduate student, PhD *Curriculum* in Neuroscience (Dottorato di Ricerca in Neuroscienze), University of Verona, Italy (Supervisor: Prof. M. Bentivoglio)
- 18 February 2003** PhD degree in Neuroscience
- 2 January 2005** Assistant Professor of Anatomy ("Ricercatore non confermato, BIO/16"), Faculty of Medicine, University of Verona.
- 1 January 2008** Confirmed Assistant Professor ("Ricercatore non confermato, BIO/16"), Faculty of Medicine, University of Verona,
- 25 June 2010** Qualified for Associated Professorship in Human anatomy (BIO/16), Faculty of Medicine, University of Milano,
- 1 January 2011** Associate Professor in Anatomy, Faculty of Medicine, University of Verona.

## **RESEARCH**

### ***October 1996- August 1997:***

Erasmus (European student exchange project) fellow at the Institute of Comparative Psycho-Physiology, Faculty of Psychology and Institute of Anatomy and Embryology, Faculty of Medicine, Catholic University of Nijmegen (now "Radboud University Nijmegen"), the Netherlands (Supervisor: *Prof. G. van Luijtelaar*)

### ***February-March 1999:***

Research fellow of the Laboratory of Neuropsychology, NIMH, Bethesda, MD, U.S.A.

(Supervisor: *Dr. M. Mishkin*)

**May-July 1999:**

Research fellow of the Laboratory of Experimental Neurology, EPM-UNIFESP, São Paulo, Brazil. (Supervisor: *Prof. E.A. Cavalheiro*)

**November 2000 – April 2001:**

Visiting Professor of the Laboratory of Nutritional Physiology, Federal University of Pernambuco, Recife, Brazil.

**Since 1998**

Research fellow of the Experimental MRI Center, University of Verona, Verona, Italy

**November 2002-January 2005:**

Research fellow of the Institute of Anatomy and Histology, Faculty of Medicine, University of Verona.

**Since 1 January 2005:**

Assistant Professor in Human Anatomy (BIO/16), Faculty of Medicine, Dept. Morphological and Biomedical Sciences, Verona, Italy

**Since 1 January 2005:**

Supervisor of the Behavioural and Biopotentials analysis Lab, Faculty of Medicine, Dept. Morphological and Biomedical Sciences, Verona, Italy. Dr. Fabene organized and is currently supervising an international-level behavioural lab composed by seven independent setups completely isolated acoustically and thermally; his Lab in particular is based on telemetry EEG plus video synchronization, and a very broad set of behavioural tests, based on Noldus technology (Noldus Information Technology, Wageningen, the Netherlands).

## **COMPANIES**

**6 July 2010** Co-founder of **Veneto Pharma s.r.l.**, *spin-off* of the University of Verona, Faculty of Medicine, Verona, Italy.

Furthermore, in the last years, Dr. Fabene's Lab is a "reference lab" for Noldus (Noldus Information Technology, Wageningen, the Netherlands) and for Datascience for telemetry EEG and biopotentials both in rats and mice (Data Sciences International, St. Paul, MN, U.S.A.).

## **INTERNATIONAL COURSES**

**May 2001:**

International Course of "Stereology for Neuroscience Research" (3-4 May 2001, Aachen, Germany)

**March 2003:**

International Course of “Applied MR Techniques, Basic Course” (20-22 March 2003, Innsbruck, Austria)

**August 2003:**

International Course of “Advanced Neuroimaging - Diffusion, Perfusion, Spectroscopy” (28-30 August 2003, Aarhus, Denmark)

**EDITORIAL EXPERIENCE**

- Referee of different international scientific journals, such as: *Acta Histochemica*, *Anatomical Records*, *Behavioral Neuroscience Journal*, *Brain*, *Brain Research*, *Brain Research Bulletin*, *Epilepsia*, *Hippocampus*, *International Journal of Developmental Neuroscience*, *Internet Journal of Mental Health*, *Journal of Neuroscience Methods*, *Methods and Findings in Experimental and Clinical Pharmacology*, *Nature Reviews in Drug Discovery*, *Neurobiology of Diseases*, *Neurological Sciences*, *NeuroImage*, *Neuroscience*, *Neuroscience Letters*, *Physiology & Behavior*.

**1999-2004**

- Editorial Assistant of Prof. Marina Bentivoglio, Section Editor for “*Functional and Molecular Neuroanatomy and Experimental Neuropathology*” of the international journal *Brain Research Bulletin* (Elsevier, Shannon, Ireland)

**1 January 2005 -NOW**

- Part of the *Editorial board* of “The Internet Journal of Mental Health”, <http://www.ispub.com/ostia/index.php?xmlFilePath=journals/ijmh/front.xml>
- Member of the *International Reviewers Panel of Medical Science Monitor*

**TEACHING EXPERIENCES**

PFF has been (or is currently) supervisor of more than 10 PhD students in Neurosciences and Multimodal imaging, and more than 5 student for the bachelor thesis dissertation.

In the last ten years PFF has been involved in many teaching activities; in particular, during this year (2011) PFF is:

- Official Professor of Anatomy of the Specialized Degree in Dentistry and Dental Implants, University of Verona
- Official Professor of Anatomy of the Nursing Degree (Bolzano), University of Verona
- Member of the professor board of the Nanotechnology PhD curriculum, University of Verona;
- Member of the professor board of the “IRCSS Bonino-Pulejo” Neuroscience PhD curriculum, Messina;
- Professor for residency student in School of Specialization in Maxillofacial Surgery, Faculty of Medicine, University of Verona

- Professor for residency student School of Specialization in Psychiatry, Faculty of Medicine, University of Verona
- Professor for residency student School of Specialization in Neurology, Faculty of Medicine, University of Verona
- Professor for residency student School of Specialization in Paediatric Neuropsychiatry, Faculty of Medicine, University of Verona
- Supervisor of Human cadaver dissection (University of Szeged, Hungary), Faculty of Medicine, University of Verona

### **PATENT APPLICATION**

December 21, 2007, first author for International Patent Application No. PCT/US2007/013624 entitled "Anti-Leukocyte Recruitment Therapy for the Treatment of Seizures and Epilepsy": assigned publication number WO 2007/146188, **USPTO Applicaton #: 20080025992 -Class: 424158100 (USPTO)** (<http://www.freshpatents.com/Anti-leukocyte-recruitment-therapy-for-the-treatment-of-seizures-and-epilepsy-dt20080131ptan20080025992.php>)

### **MEETING ABSTRACTS**

PFF is author of more than 60 abstracts and communication to national and international meetings.

### **PUBLICATIONS (in extenso)**

1. Marchi N, Johnson AJ, Puvenna V, Johnson HL, Tierney W, Ghosh C, Cucullo L, **Fabene PF**, Janigro D. *Modulation of peripheral cytotoxic cells and ictogenesis in a model of seizures. **Epilepsia**. 2011 May 31.*
2. Navarro-Mora G, **Fabene PF**, van Luijtelaaar G. *Early onset of age-related changes on neural processing in rats. **Physiol Behav**. 2011 May 3;103(2):134-43. Epub 2011 Feb 25. PubMed PMID: 21354431.*
3. Paradiso B, Zucchini S, Su T, Bovolenta R, Berto E, Marconi P, Marzola A, Navarro Mora G, **Fabene PF**, Simonato M. *Localized overexpression of FGF-2 and BDNF in hippocampus reduces mossy fiber sprouting and spontaneous seizures up to 4 weeks after pilocarpine-induced status epilepticus. **Epilepsia**. 2011 Mar;52(3):572-8.*
4. Bovolenta R, Zucchini S, Paradiso B, Rodi D, Merigo F, Navarro Mora G, Osculati F, Berto E, Marconi P, Marzola A, Simonato M., **Fabene PF** *Hippocampal FGF-2 and BDNF overexpression attenuates epileptogenesis-associated neuroinflammation and reduces spontaneous recurrent seizures. **J Neuroinflammation**. 2010 Nov 18;7:81.*

5. Norwood BA, Bumanglag AV, Osculati F, Sbarbati A, Marzola P, Nicolato E, **Fabene PF**, Sloviter RS. *Classic hippocampal sclerosis and hippocampal-onset epilepsy produced by a single "cryptic" episode of focal hippocampal excitation in awake rats.* **J Comp Neurol.** 2010 Aug 15;518(16):3381-407.
6. **Fabene PF**, Bramanti P, Constantin G. *The emerging role for chemokines in epilepsy.* **J Neuroimmunol.** 2010 Jul 27;224(1-2):22-7.
7. **Fabene PF.** *Non-neuronal cells, inflammation and epilepsy.* **Eur J Neurosci.** 2010 Mar;31(6):1098-9.
8. Mazzuferi M, Palma E, Martinello K, Maiolino F, Roseti C, Fucile S, **Fabene PF**, Schio F, Pellitteri M, Sperk G, Miledi R, Eusebi F, Simonato M. *Enhancement of GABA(A)-current run-down in the hippocampus occurs at the first spontaneous seizure in a model of temporal lobe epilepsy.* **Proc Natl Acad Sci U S A.** 2010 Feb 16;107(7):3180-5.
9. Luttjohann A, **Fabene PF**, van Luijtelaar G. *A revised Racine's scale for PTZ-induced seizures in rats.* **Physiol Behav.** 2009 Dec 7;98(5):579-86. Epub 2009 Sep 20.
10. Navarro Mora G, Bramanti P, Osculati F, Chakir A, Nicolato E, Marzola P, Sbarbati A, **Fabene PF.** *Does pilocarpine-induced epilepsy in adult rats require status epilepticus?* **PLoS One.** 2009 Jun 2;4(6):e5759.
11. Paradiso B, Marconi P, Zucchini S, Berto E, Binaschi A, Bozac A, Buzzi A, Mazzuferi M, Magri E, Navarro Mora G, Rodi D, Su T, Volpi I, Zanetti L, Marzola A, Manservigi R, **Fabene PF**, Simonato M. *Localized delivery of fibroblast growth factor-2 and brain-derived neurotrophic factor reduces spontaneous seizures in an epilepsy model.* **Proc Natl Acad Sci U S A.** 2009 Apr 28;106(17):7191-6.
12. **Fabene PF**, Navarro Mora G, Martinello M, Rossi B, Merigo F, Ottoboni L, Bach S, Angiari S, Benati D, Chakir A, Zanetti L, Schio F, Osculati A, Marzola P, Nicolato E, Homeister JW, Xia L, Lowe JB, McEver RP, Osculati F, Sbarbati A, Butcher EC, Constantin G. *A role for leukocyte-endothelial adhesion mechanisms in epilepsy.* **Nat Med.** 2008 Dec;14(12):1377-83.
13. **P.F. Fabene**, G. Constantin, M. Bentivoglio and A. Sbarbati. "Modulation of neuronal excitability: vascular changes and inflammation" In: Schwartzkroin P (ed.) **ENCYCLOPEDIA OF BASIC EPILEPSY RESEARCH.**
14. A. Andrioli, **P. F. Fabene**, R. Spreafico, E.A. Cavalheiro, M. Bentivoglio. "Different patterns of neuronal activation and neurodegeneration in the thalamus and cortex of epilepsy-resistant versus epilepsy-prone rats after pilocarpine-induced seizures". Accepted for publication in **EPILEPSIA**
15. **P.F. Fabene**, R. Mariotti, G. Navarro Mora, A. Chakir, C. Zancanaro. (2008) "Forced mild physical training-induced effects on cognitive and locomotory behavior in old mice". **JOURNAL OF NUTRITION, HEALTH AND AGING** 12(6):388-90
16. F. Pizzini, P. Farace, T. Zanoni, S. Magon, A. Beltramello, A. Sbarbati, **P. F. Fabene.** (2008) "Pulsed-arterial-spin-labeling perfusion 3T MRI following single seizure: a first case report study" **EPILEPSY RESEARCH** in press. [doi:10.1016/j.eplepsyres.2008.06.009](https://doi.org/10.1016/j.eplepsyres.2008.06.009)

17. **Fabene P.F.**, Merigo F., Galiè M., Benati D., Bernardi P., Farace P., Nicolato E., Marzola P., Sbarbati A. (2007). *Pilocarpine-induced status epilepticus in rats involves ischemic and excitotoxic mechanisms.* **PLoS ONE**. vol. 2(10): e1105.

18. **Fabene P.F.**, Farace P, Brambilla P, Andreone N, Cerini R, Pelizza L, Versace A, Rambaldelli G, Birbaumer N, Tansella M, Sbarbati A. (2007) *Three-dimensional MRI perfusion maps: a step beyond volumetric analysis in mental disorders.* **JOURNAL OF ANATOMY**. vol. 210(1):122-8.

19. Chakir A, **Fabene P.F.**, Ouazzani R, Bentivoglio M. (2006). *Drug resistance and hippocampal damage after delayed treatment of pilocarpine-induced epilepsy in the rat.* **BRAIN RESEARCH BULLETIN**. vol. 71(1-3):127-38.

20. **Fabene P.F.**, R. Weiczner, P. Marzola, E. Nicolato, L. Calderan, A. Andrioli, E. Farkas, Z. Sle, A. Mihaly, A. Sbarbati (2006). *Structural and functional MRI following 4-aminopyridine-induced seizures: a direct histological and ultrastructural correlation.* **NEUROBIOLOGY OF DISEASE**. vol. 21(1):80-9.

21. Calderan L, Marzola P, Nicolato E, **Fabene P.F.**, Milanese C, Bernardi P, Giordano A, Cinti S, Sbarbati A (2006). *In vivo phenotyping of the ob/ob mouse by magnetic resonance imaging and 1H-magnetic resonance spectroscopy.* **OBSIDITY**. vol. 14(3):405-14.

22. Cavallini I, Marino Ma, Tonello C, Marzola P, Nicolato E, **Fabene P.F.**, Calderan L, Bernardi P, Asperio Rm, Nisoli E, Sbarbati A. (2006). *The hydrolipidic ratio in age-related maturation of adipose tissues.* **BIOMEDICINE & PHARMACOTHERAPY**. vol. 60(3) pp. 139-143

23. P. Brambilla, R. Cerini, **Fabene P.F.**, N. Andreone, G. Rambaldelli, P. Farace, A. Versace, C. Perlini, L. Pelizza, A. Gasparini, R. Gatti, M. Bellani, N. Dusi, C. Barbui, M. Nos, K. Tournikioti, A. Sbarbati, M. Tansella (2006). *Assessment of cerebral blood volume in schizophrenia: a magnetic resonance imaging study.* **JOURNAL OF PSYCHIATRIC RESEARCH**. vol. 41(6) pp. 502-510;

24. Sbarbati A, Merigo F, Benati D, Bernardi P, Tizzano M, **Fabene P.F.**, Crescimanno C, Osculati F. (2006). *Axon-like processes in type III cells of taste organs.* **ANATOMICAL RECORD. PART A, DISCOVERIES IN MOLECULAR, CELLULAR, AND EVOLUTIONARY BIOLOGY**. vol. 288(3) pp. 276-279 ISSN: 1552-4884

25. A. Sbarbati, **Fabene P.F.**, P. Marzola, F. Boschi (2005). *Preclinical neuroimaging: an overview. Neuroimaging preclinico: lo stato dell'arte.* **RIVISTA DI NEURORADIOLOGIA**. ISSN: 1120-9976

26. L. Calderan, C. Chiamulera, P. Marzola, **Fabene P.F.**, G.F. Fumagalli, A. Sbarbati (2005). *Sub-chronic Nicotine-induced changes of regional cerebral blood volume and transversal relaxation time patterns in the rat: a magnetic resonance study.* **NEUROSCIENCE LETTERS**. vol. 377 pp. 195-199 ISSN: 0304-3940

27. **Fabene P.F.**, A. Andrioli, M. R. Priel, E. A. Cavalheiro And M. Bentivoglio (2004). *Neurodegeneration, persistent Fos induction and interneuron activation in the hippocampus of*

*epilepsy-resistant versus epilepsy-prone rats after pilocarpine-induced seizures.*  
**HIPPOCAMPUS**. vol. 14 pp. 895-907 ISSN: 1050-9631

28. **Fabene P.F.**, Sbarbati A. (2004). *In vivo MRI in animal models of experimental epilepsy.*  
**CURRENT DRUG TARGETS**. vol. 5 pp. 629-636 ISSN: 1389-4501

29. A. Sbarbati, F. Pizzini, **Fabene P.F.**, E. Nicolato, P. Marzola, L. Calderan, A. Simonati, L. Longo, A. Osculati And A. Beltramello (2004). *Cerebral cortex 3D-profiling in human fetuses by magnetic resonance imaging". Journal of Anatomy.* **JOURNAL OF ANATOMY**. vol. 204 pp. 465-474 ISSN: 0021-8782

30. L. Calderan, **Fabene P.F.**, E. Nicolato, P. Marzola, A. Sbarbati And F. Osculati (2004). *MRI parameters modification in puberty-related brain development in rat.* **NEUROSCIENCE LETTERS**. vol. 364 pp. 141-144 ISSN: 0304-3940

31. **Fabene P.F.**, P. Marzola, A. Sbarbati, M. Bentivoglio (2003). *Magnetic resonance imaging of changes elicited by status epilepticus in the rat brain: diffusion-weighted and T2-weighted images, regional blood volume maps, and direct correlation with tissue and cell damage.*  
**NEUROIMAGE**. vol. 18 pp. 375-389 ISSN: 1053-8119

32. M. Bentivoglio, L. Tassi, E. Pech, C. Costa, **Fabene P.F.**, R. Spreafico (2003). *Cortical development and focal cortical dysplasia.* **EPILEPTIC DISORDERS**. vol. 5 pp. S27-34 ISSN: 1294-9361

33. A. Sbarbati, P. Marzola, E. Nicolato, P. Farace, R.M. Asperio, E. Lunati, **Fabene P.F.**, D. Marzioni, M. Castellucci, M.C. Capogrossi And F. Osculati. (2003). *Dynamic MRI reveals that the magnitude of the ischemia-related enhancement in skeletal muscle is age dependent.*  
**MAGNETIC RESONANCE IN MEDICINE**. vol. 49 pp. 386-390 ISSN: 0740-3194

34. M. Bentivoglio, **Fabene P.F.**, R. Spreafico (2003). *Cenni sullo sviluppo della corteccia cerebrale e sui disordini della migrazione neuronale.* **RIVISTA DI NEURORADIOLOGIA**. vol. 16 pp. 316-320 ISSN: 1120-9976

35. G. Bertini, Z.C. Peng, **Fabene P.F.**, G. Grassi-Zucconi, M. Bentivoglio. (2002). *Fos induction in cortical interneurons during spontaneous wakefulness of rats in a familiar or enriched environment.* **BRAIN RESEARCH BULLETIN**. vol. 57 pp. 631-638 ISSN: 0361-9230

36. **Fabene P.F.**, G. Bertini, L. Correia, E.A. Cavalheiro, M. Bentivoglio (2001). *The thalamus of the Amazon spiny rat Proechimys guyannensis, an animal model of resistance to epilepsy, and pilocarpine-induced long-term changes of protein expression.* **THALAMUS AND RELATED SYSTEMS**. vol. 1 pp. 117-133 ISSN: 1472-9288

37. **Fabene P.F.**, L. Correia, R.A. Carvalho, E.A. Cavalheiro, M. Bentivoglio (2001). *The spiny rat Proechimys guyannensis as model of resistance to epilepsy: chemical characterization of hippocampal cell populations and pilocarpine-induced changes.* **NEUROSCIENCE**. vol. 104 pp. 979-1002 ISSN: 0306-4522

38. G. Van Luijtelaaar, **Fabene P.F.**, N. De Bruin, C. Jongema, B.A. Ellenbroek, J.G. Veening. (2001). *Neural correlates of sensory gating in the rat: decreased Fos induction in the lateral septum.* **BRAIN RESEARCH BULLETIN**. vol. 54 pp. 145-151 ISSN: 0361-9230



39. **Fabene P.F.**, Bentivoglio M. (1998). *1898-1998: Camillo Golgi and "the Golgi": One hundred years of terminological clones.* **BRAIN RESEARCH BULLETIN**. vol. 47 pp. 195-198 ISSN: 0361-9230