



CURRICULUM
VITAE
Francesco Bifari, MD, PhD

BIOGRAPHICAL DATA

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PRESENT POSITION

March 2016- *Principal Investigator*: Laboratory of Cell Metabolism and Regenerative
Medicine; Department of Medical Biotechnology and Translational Medicine
University of Milan
Scientific sector: Farmacology BIO/14

• **EDUCATION**

Jan 2006- May 2009 PhD degree: Graduate School in Translational Biomedicine,
course in Biology and Clinical Application of Stem Cells (with
highest honors); University of Verona, Verona, Italy
Name of PhD Supervisor: Prof. Mauro Krampera
2000- 2005 Clinical specialty in Endocrinology and Metabolic Diseases (with
highest honors), University of Verona, Verona, Italy.
Supervisor: Prof. Michele Muggeo, Co-Tutor: Prof. Riccardo
Bonadonna
1994- 2000 M.D. degree (with highest honors) University of Milan, School of
Medicine.
Supervisor: Prof. AE Pontiroli

• **PREVIOUS POSITIONS**

Feb 2014-Feb 2016 IEF Marie Curie Fellow at the Laboratory of Angiogenesis and
Neurovascular link, Vesalius Research Center, VIB, Leuven,
Belgium (Prof. Peter Carmeliet) - Research field: meningeal

- NSCs; cell metabolism; neurovascular-link; angiogenesis; cancer; transcriptomic.
- May 2013-Jan 2014 Visiting scientist at the Laboratory of Angiogenesis and Neurovascular link, Vesalius Research Center, VIB, Leuven, Belgium (Prof. Peter Carmeliet)
- March2011-March2013 Postdoctoral fellow at the Stem Cell Research Laboratory, University of Verona, Italy (Prof. Mauro Krampera) - Research field: meningeal NSCs; mesenchymal stem cell; immune-modulation.
- Jun 2009-Feb 2011 Clinical Trainee for clinical grade GMP production and quality controls, Cell Factory, University-Hospital of Verona, Italy
- Jan 2006- May 2009 Graduate student in Biology and Clinical Application of Stem Cells, University of Verona, Verona, Italy - Research field: meningeal NSCs; mesenchymal stem cell; immune-modulation.
- Jul 2005-Dec 2005 Medical Doctor at the Emergency Department of the San Raffaele Hospital (HSR), Milan, Italy
- 2000- 2005 Clinical internship in Internal Medicine, Endocrinology and Metabolic Diseases Unit, University-Hospital of Verona, Verona, Italy.

- **FELLOWSHIPS**

- Feb 2014-Feb 2016 Marie Curie, Intra European Fellowship (FP7-PEOPLE-2013-IEF-No626829), Laboratory of Angiogenesis and Neurovascular link, Vesalius Research Center, VIB, Leuven, Belgium [Project title: Meninges: a new perivascular stem cell niche for widespread neurogenesis]
- March2011-March2013 Postdoctoral fellow at the Stem Cell Research Laboratory, University of Verona, Italy [Project title: Study of the Meningeal Stem/Progenitor Cells]

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

- March 2011-Dec 2013 Research Tutor at the PhD course in Translational Medicine and Thesis, University of Verona, Verona

- **TEACHING ACTIVITIES**

- 2016 – present Pharmacology course at the International Medical School, University of Milan, Italy
- 2016 – present Pharmacology course at the Medical Biotechnology and Molecular Medicine, University of Milan, Italy

- **ORGANISATION OF SCIENTIFIC MEETINGS**

- May 2009 and 2011 Member of the scientific and organising committee of the 1st and 2nd Workshop “Neurogenesis and neural differentiation of stem cells”, University of Verona, Verona, Italy
- Sept 2016 and 2017 Member of the scientific and organising committee of the 1st and 2nd Biometra Workshop, University of Milan, Milan, Italy

- **INSTITUTIONAL RESPONSIBILITIES**

- 2017 –present Member of the committee of the Graduate School in Experimental and Clinical Pharmacological Sciences, University of Milan, Italy
- 2016–present Organizer of the BIOMETRA seminars (12/year), University of Milan, Italy

- 2015 Member of Master thesis evaluation committee, Katholieke Universiteit Leuven; Leuven, Belgium
- 2009 Advisor (master students), Degree in Biotechnology Technician, University of Verona, Italy

- **COMMISSIONS OF TRUST**

- 2013– 2015 Reviewer for the Multiple Sclerosis Society, registered charity n°1139257/SC041990, UK

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- 2016 –present British and Italian Pharmacological Society (BPS and SIF)
- 2012 –present International Society of Stem Cell Research (ISSCR)

- **CAREER BREAKS**

From **2000** (University degree) to **2005** (Specialization in Endocrinology and Metabolic Diseases) I worked as full time physician (no lab/research work). I started working in research in 2006, when I was awarded a PhD fellowship (Jan 2006-May 2009)

➤ **June 2009 –Feb 2011 Clinical training**

Participation of to the ISS-clinical record Eudract 2012-002424-33

From June 1st, 2009 to February 28th, 2011, following MD and PhD degree, I took part as **clinical trainee** to the production of clinical grade human bone marrow derived mesenchymal stem cells (BM-MSC) according to good manufactory practice (GMP) rules. The clinical record (Eudract 2012-002424-33) was then presented to the Italian National Institute of Health (Istituto Superiore di Sanità, ISS).

During this period, I worked full-time to the clinical record Eudract to the clinical grade GMP production and quality controls of human BM-MSC cells.

- **RESEARCH PRODUCTS**

I am author of [24 research papers](#) and 7 reviews (9 first, 3 last author) and 1 book chapter.

I have a score of 1120 citations; average citations per item=37,3; mean Impact Factor=8,6 and H index=18.

PUBLICATIONS (5 most relevant):

1. Dolci S, ...**Bifari F*** & Decimo I* High yield of adult oligodendrocyte lineage cells obtained from meningeal biopsy **Front in Pharmacology**, 8 (2017) (IF= 4,5; Cited by /) * [co-last and corresponding author] Role: conceptualized and designed the study, supervised the project, wrote the paper and had scientific direction. Scientific skills: cell therapy; neural stem cell biology; animal model of demyelination.
2. **Bifari F**, ... Carmeliet P. Neurogenic Radial Glia-like Cells in Meninges Migrate and Differentiate into Functionally Integrated Neurons in the Neonatal Cortex. **Cell Stem Cell**. 2017 Mar 2; 20(3):360-373.e7. (IF= 23,3; Cited by 5). Role: conceptualized and designed the study, performed experiments, analysed and interpreted data and wrote the paper. Scientific skills: neural stem cell biology; transgenesis; gene transfer; transcriptomics; electrophysiology.
3. Lange C, Turrero Garcia M, Decimo I, **Bifari F**, ... Carmeliet P. Relief of hypoxia by angiogenesis promotes neural stem cell differentiation by targeting glycolysis. **EMBO J**. 2016 May 2; 35(9):924-41 (IF= 10.3; Cited by 18). Role: performed experiments, analysed and interpreted data and wrote the paper. Scientific skills: neural stem cells metabolism; developmental biology; neuro-vascular link.
4. Quaegebeur A, Segura I, Schmieder R, Verdegem D, Decimo I, **Bifari F**,... Carmeliet P. Deletion or Inhibition of the Oxygen Sensor PHD1 Protects against Ischemic Stroke via Reprogramming of Neuronal Metabolism. **Cell Metab**. 2016 Feb 9;23(2):280-91 (IF=

17.6; Cited by 15). Role: performed experiments, analysed and interpreted data and wrote the paper. Scientific skills: transgenesis, gene transfer, neuronal cell metabolism; stroke; neurological assessment in animal model; neuro-vascular link.

5. De Bock K, ...**Bifari F**, ... Carmeliet P. Role of PFKFB3-driven glycolysis in vessel sprouting. *Cell*; 2013 Aug 1, 154 (3):651-63 (IF= 32; Cited by 114). Role: performed experiments, analysed and interpreted data. Scientific skills: transgenesis, pericyte metabolism; angiogenesis.

As indication of my independent thinking, I published the last articles with my PhD supervisor in 2012 and I have already published 4 papers as newly appointed PI (without my post-doc tutor as co-author).

- **HONORS AND AWARDS**

2017 Press release from the CELL STEM CELLS journal with dedicated Cover story of the issue 3, 2017 and a pre-view “A Back Door to Cortical Development” from Gerd Kempermann.

2013 Magistral Lecture for the opening of the new academic year 2013-2014, University of Verona, Italy [This was a great honour, as far as the opening of the new academic year was previously conferred to well renowned scientists; cited from popular national news papers (i.e. Corriere della Sera)].

2011 Press release from the STEM CELLS journal with the comment of the Editor in Chief and Cover page of the issue 12, 2011

2011 The Weizmann Institute of Science Dean of Faculty Fellowship, Israel, 42000 Euro (declined)

2009 Prize “Verona Young” 2009, Young Businessman Industry Association, Verona, Italy [1 price/year]

- **INVITED PRESENTATIONS TO INTERNATIONALLY ESTABLISHED CONFERENCES**

Bifari F. (May 30th 2017). Neurogenic radial glia-like cells in the meninges contribute functionally integrated neurons to the neonatal cortex; (WiBrain meeting), Paris, France

Bifari F. (September 30th 2011). Immunophenotype of GMP grade MSCs. Educational on the immunophenotypical characterization of stem cell populations (Italian Clinical and Sperimental Cytometry Association (SISC)). Verona, Italy

Bifari F. (July 12th 2009). Characterization of a novel stem cell population with neuronal differentiation potential residing in the leptomeningeal niche. 3rd International Workshop on MSCs in Regenerative Medicine and Immune Regulation; Frankfurt, Germany

Bifari F. (July 5th 2008). Immunomodulatory effect of MSC. Italian Association of Experimental Hematology (SIES, Società Italiana di Ematologia Sperimentale). Florence, Italy.

- **EDITORIAL AND REVIEWER ACTIVITY**

Reviewer Editor for the following international journals: STEM CELLS; Journal of Cellular and Molecular Medicine; Stem Cell and Development; Stem Cell Research; Biomaterials, PLoS One; Endocrine; Journal of Translational Medicine; Tissue Engineering; Translational Research; Transplant Immunology; Journal of Immunological Methods; Journal of Neuroinflammation; Clinical and Developmental Immunology; Frontiers in Chemistry; Frontiers in Cellular Neuroscience; Frontiers in Cell and Developmental Biology, Frontiers in Molecular Biosciences.