Chiara Borsotti

Curriculum vitae

CURRENT POSITION

March 2022 - Present	Assistant Professor (tenure track) in Histology – Department of Health Sciences, Università del Piemonte Orientale, Italy

CURRICULUM VITAE ET STUDIORUM

Education

October 2011: PhD in Molecular Medicine – Basic and Applied Immunology - Università Vita-Salute San Raffaele, Milan (Italy).

July 2001: *Laurea Magistrale* (MSc) in Medical Biotechnology, Università degli Studi di Milano, Milan (Italy).

Research experience

May 2017 – February 2022: Research Assistant Professor in the Histology Laboratory at the Health Sciences Department - Università degli Studi del Piemonte Orientale "A. Avogadro", Novara (Italy)

July 2016 – April 2017: Postdoctoral fellow in the Histology Laboratory (Prof. Antonia Follenzi) at the Health Sciences Department - Università degli Studi del Piemonte Orientale "A. Avogadro", Novara (Italy)

June 2012 – June 2017: Postdoctoral Research Scientist at the Columbia Center for Translational Immonology (CCTI) (Prof. Megan Sykes) - Columbia University, New York (USA).

January 2007 – April 2011: PhD student at the Institute of Research in Biomedicine (IRB), Bellinzona (Switzerland), with the supervision of Prof. Markus Manz and Prof. Antonio Lanzavecchia. One year was held at the Immunobiology Department (Prof. Richard Flavell) - Yale University, New Haven (USA).

January 2005 – December 2006: Research Assistant at the Memorial Sloan-Kettering Cancer Center (MSKCC) - New York (USA) with Dr. Marcel van den Brink.

September 2001 – December 2004: Research assistant at Fondazione Matarelli (Dr Davide Soligo) – Milano (Italy)

September 1999 – July 2001: Undergraduate student at Fondazione Matarelli (Prof. Giorgio Lambertenghi) – Milano (Italy).

MAIN FIELDS OF INTEREST

1. Role of FVIII on bone homeostasis
2. Cell and molecular mechanisms involved in the immune response against FVIII

CURRENT ISSUES OF RESEARCH

One project focuses on how the lack of FVIII influences the differentiation and activity of osteoblasts and osteoclasts. The second project aims to identify the cells and molecular pathways involved in the immune response to coagulation factor VIII during the treatment of haemophilia A with the aim of promoting tolerance towards it.

TOP FIVE PAPERS

1. Kalandadze V, Di Simone PE, Mohammed I, Murari D, Follenzi A*, **Borsotti C***. Elevated memory T-cell conversion in a preclinical mouse model of hemophilia A. *Co-last Author. *Eur J Immunol*. 2024 Jun 14:e2350807 doi: 10.1002/eji.202350807.
2. Borroni E*, **Borsotti C***, Cirsmaru RA, Kalandadze V, Famà R, Merlin S, Brown B, Follenzi A. Immune tolerance promotion by LSEC-specific lentiviral vector-mediated expression of the transgene regulated by the stabilin-2 promoter. *Co-first Author. *Mol Ther Nucleic Acids*. 2024 Jan 17;35(1):102116 doi: 10.1016/j.omtn.2024.102116
3. Olgasi C*, **Borsotti C***, Merlin S*, Bergmann T, Bittorf P, Adewoye AB, Wragg N, Patterson K, Calabria A, Benedicenti F, Cucci A, Borchiellini A, Pollio B, Montini E, Mazzuca DM, Zierau M, Stolzing A, Toleikis PM, Braspenning J, Follenzi A. *Co-first Author. Efficient and safe correction of hemophilia A by lentiviral vector-transduced BOECs in an implantable device. *Mol Ther Methods Clin Dev*. 2021 Nov 3; 23:551-566 doi: https://doi.org/10.1016/j.omtm.2021.10.015
4. **Borsotti C**, Follenzi A. New technologies in gene therapy for inducing immune tolerance in hemophilia A. *Expert Rev Clin Immunol*. 2018 Dec;14(12):1013-1019 doi: 10.1080/1744666X.2018.1539667.
5. **Borsotti C**, Danzl NM, Nauman G, Hölzl MA, French C, Chavez E, Maharlooei MK, Glauzy S, Delmotte FR, Meffre E, Savage DG, Campbell S, Goland R, Greenberg E, Bi J, Satwani P, Yang S, Bathon J, Winchester R, Sykes M. HSC-extrinsic sex- and intrinsic autoimmune disease-related human B cell variation is recapitulated in humanized mice. *Blood Adv*. 2017 Oct 13; 1(23):2007-2018 doi: 10.1182/bloodadvances.2017006932