

BIOGRAPHICAL SKETCH

NAME: Valeria Barili

POSITION TITLE: Assistant Professor in Medical Genetics (RTT)

(<https://personale.unipr.it/en/ugovdocenti/person/204932>)

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
University of Parma – Parma, Italy	Bachelor's degree	07/2003	Biotechnology – 110/110 cum laude
University of Parma – Parma, Italy	Master's degree	06/2006	Biotechnology for Health – 110/110 cum laude
San Raffaele Scientific Institute – Milan, Italy	-	12/2006	Post-lauream Fellowship (Study of the neuro-secretion processes for neuronal differentiation)
Vita-Salute San Raffaele University – Milan, Italy	PhD	04/2011	Molecular Medicine (Functional analysis of transcription factors which regulate neural stem cells during neurogenesis)

A. Personal Statement

Assistant Professor in Medical Genetics (PhD in Molecular Medicine) at the University of Parma, with extensive experience in molecular genetics, genomics and precision medicine. My work focuses on hereditary cancer syndromes and rare tumors, combining expertise in multi-omic technologies, bio-assay development and implementation of novel protocols and technologies. I am driven by a deep commitment to uncovering the molecular mechanisms underlying complex diseases and translating these insights into improved diagnostic and therapeutic strategies.

Since 2021, my research has focused on genetic disorders associated with high cancer predisposition, (e.g. Neurofibromatosis). I investigate the molecular architecture of these conditions through integrated multi-omic approaches, including WES/WGS, epigenomics, long-read seq and liquid biopsy, combined with AI-based predictive modelling, with the aim of developing high-throughput diagnostic tools within a translational, multidisciplinary framework to support personalized monitoring, risk stratification, and precision oncology. I have extensive experience leading research teams and mentoring PhD students and postdoctoral fellows, fostering interdisciplinary collaboration and rigorous scientific inquiry. I am adept at securing competitive funding and building international collaborations, and I have authored high-impact manuscripts published in journals including Nature Communications and Nature Medicine. This combination of scientific leadership, translational research expertise and grant-writing success equips me to drive ambitious research projects from concept to clinical impact.

B. Positions and Honors

Current institutional position:

- 6-year fixed-term research position as Assistant Professor in Medical Genetics at the University of Parma, awarded in a public competition against eight other highly qualified candidates.
- From 2021, **Scientific Director of the Medical Genetics Laboratory at the University of Parma** leading research on genetic diseases that increase cancer risk (<https://mc.unipr.it/en/node/4160>). This role includes successful mentorship of a team of eight, including PhD students, research fellows, and thesis students.
- From 2025 **scientific member of the “Center for Molecular and Translational Oncology” at the University of Parma.**
- Member of the **Area 06 Scientific Committee (Medical Sciences), University of Parma** (Three-year term: 2026–2028)

Honors:

- Selected for an **advanced experimental training course** of three weeks with the aim to perform molecular manipulation of mouse embryos for the generation of embryonic stem cells at the **Cold Spring Harbor Laboratory** in USA (Molecular Embryology of the Mouse - Training course, 2008).
- Best abstract winner** at San Raffaele Scientific Retreat (Stresa, Italy) with the project “Insulin-like Growth Factor I is essential for Purkinje neuron survival at birth” in 2010.
- Winner of **Young Investigator Bursary** at the **EASL International Liver Congress in Amsterdam** for her project “*Metabolic signatures of chronic hepatitis C evolution revealed by transcriptome profiling of virus-specific CD8 cells across different stages of HCV infection*” in 2017. The award was granted by an esteemed international review board.
- In 2020, **selected at ReActor, the School of Entrepreneurship and Innovation** sponsored by Fondazione Marino Golinelli in Bologna (Italy) and private companies. This program provided hands-on training, mentorship, and opportunities for international collaboration to transform scientific research into entrepreneurial ventures. This opportunity allowed her to stay at **Mind the Bridge** accelerator program in **San Francisco USA** (2022), fostering connections with international investors and refining her skills in business development and scientific communication.
- In 2022, awarded a **PRIN 2022 grant** from the **Italian Minister of University and Research** for her research project “*On the development of neoantigen vaccine for HCC cure: from genomics of Hepatitis B Virus (HBV) integration in liver cells to immunological host response toward neoepitopes as novel immunotherapeutic approaches.*” This study, with Dr. Barili as PI, aims to identify chimeric proteins derived from HBV integration in liver cancer using cutting-edge genomic technologies.
- In 2022, awarded another **PRIN PNRR grant** from the **Italian Minister of University and Research** for the project “*Accelerated Diagnosis and non-inVasive strategies for AN early prediCtion of malignant transformation in NF1*”. This research focuses on identifying driver gene variants linked to malignant transformations in Neurofibromatosis type 1.

7. In **2022**, awarded a competitive research grant from the **University of Parma (Italy)** under the **Lascito Feliciani-Ferretti program**, for the project "Genomic approaches for the study of individuals with autism spectrum disorder," with Dr. Barili as Principal Investigator. The project includes the supervision of a research fellowship and aims to investigate the genetic basis of autism spectrum disorder by focusing on a clinically well-characterized cohort of patients with a higher likelihood of underlying genetic alterations.
8. In **2025**, recipient of the "**University of Parma Outstanding Researcher Award**" (1st Edition, 2024), recognizing excellence in scientific leadership and international research impact within the University of Parma.
9. In **2025**, awarded a **Nanopore Research Grant by Oxford Nanopore Technologies**, supporting innovative research in nanopore-based sequencing technologies for liquid biopsy profiling in rare tumors affected patients.

C. Contributions to Science

Thanks to the experience in molecular biology (PhD in Molecular Medicine), I have contributed to develop new projects aimed at defining the gene expression profile of virus-specific T cells to identify deregulated genes involved in the pathogenesis of T cell exhaustion in patients with chronic hepatitis B and C, with the ultimate goal of designing new immunomodulatory therapies which conducted to a Nature Medicine paper IF=58 (Fiscaro et al 2017, the PI Barili is second author) and a paper in Nature Communications IF=14 (Barili et al 2020, the PI is the first-author). This work led to the discovery of molecules capable of restoring antiviral functions in lymphocytes, which opened the door to new immunomodulatory therapies in HBV infection. These achievements led to two patents. The first one in 2022 titled "*Pharmaceutical compound for use as a therapeutic treatment for chronic HBV infection and method for the identification of exhausted lymphocytes*," and the second one in 2023, titled "*Compound and composition for the metabolic and functional restoration of NK lymphocytes in hepatocellular carcinoma (HCC)*". Furthermore, I have been collaborating on research projects in the field of cancer, seeking to characterize immune mechanisms responsible for the development of hepatocellular carcinoma, and on genetic tumor predisposition syndromes, with a strong focus on Neurofibromatosis Type 1 (NF1) and Schwannomatosis.

International and National Research Projects and Clinical Studies:

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| 2010-2013 | <ul style="list-style-type: none"> Research team member for the project "Early events in acute hepatitis C virus (HCV) infection with the aim to identify new biomarkers", funded by European Commission, EC grant FP7 proposal n. 260844 with 10 different EU and non-EU countries which lead to the publication in Nature Communications 2020 (Barili et al.). |
| 2011-2014 | <ul style="list-style-type: none"> Research team member for the project "Cellular and molecular events in the pathogenesis of chronic HBV and HCV infections" funded by the Italian Minister of University and Research, FIRB grant RBAP10TPXK |
| 2012-2015 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the Research Program Emilia-Romagna, Strategic Programmes Area 1 Personalized medicine: viral and autoimmune diseases, "A tailored approach to the immune-monitoring and clinical management of viral and autoimmune diseases". |
| 2015-2017 | <ul style="list-style-type: none"> Research team member for the project "A Phase 2, Randomized, Open-Label Study to Evaluate the Safety and Efficacy of GS-4774 in combination with Tenofovir Disoproxil Fumarate (TDF) for the Treatment of Subjects with Chronic Hepatitis B and who are currently not on Treatment" funded by Gilead Sciences, Inc. |
| 2015-2018 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the project "A novel integrated genomic and immunological strategy for the therapy of chronic hepatitis B" funded by the Italian Minister of Health, Progetti Ordinari di Ricerca Finalizzata (Project Code RF-2013-02359333). |
| 2018-2019 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the project "Characterization of immunological correlates of protection in HBV infection" – Protocol Code IMM-HBV (no profit), funded by Gilead Sciences, Inc. |
| 2019-2022 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the project "Targeting transcriptionally deregulated metabolic pathways in exhausted virus-specific CD8+ T cells as a novel strategy for the treatment of chronic hepatitis B virus (HBV) infection" funded by the Italian Minister of University and Research, PRIN 2017 grant. |
| 2022-2026 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the PNRR "Ecosistema innovativo della Salute - INNOVA" Hub Lifescience Diagnostica Avanzata- The project will be focused on identifying and integrating tissue patient-specific genomic signatures, and pathogenetic mechanisms underlying disease-causing variants predict treatment outcomes in both acute and chronic disorders |
| 2021-2026 | <ul style="list-style-type: none"> Research team member for "OPCT - Identification of aggregate metabolic phenotypes for the main dietary (poly)phenols and assessment of the factors associated with their formation: development of an oral (poly)phenol challenge test" project funded by ERC starting grant (European Commission, PI Prof. Pedro Mena). |
| 2022-2028 | <ul style="list-style-type: none"> Collaborator with international research groups (see the first published paper - Bocquet B et al. JCI Insight. 2023 doi: 10.1172/jci.insight.169426. PMID: 37768732) on 'Genetic factors associated with ophthalmic disease' to identify the genetic factors contributing to the development of hereditary eye disorders, with the aim of identifying new targets for potential gene therapy. |
| 2022-2026 | <ul style="list-style-type: none"> Collaborator in European-level projects with international groups in the European Reference Network for Genetic Tumour Risk Syndromes (ERN GENTURIS), to study patients affected with tumor predisposing syndromes (see the first published paper - Hendricks LAJ, et al. J Natl Cancer Inst. 2023. doi: 10.1093/jnci/djac188. PMID: 36171661). |
| 2023-2025 | <ul style="list-style-type: none"> PI for the "On the development of neoantigen vaccine for HCC cure: from genomics of Hepatitis B Virus (HBV) integration in liver cells to immunological host response toward neopeptides as novel immunotherapeutic approaches" project founded by PRIN 2022 MUR. |
| 2023-2025 | <ul style="list-style-type: none"> PI for the "Accelerated Diagnosis and non-invasive strategies for AN early prediction of malignant transformation in NF1" project founded by PRIN PNRR 2022 MUR. |
| 2023-2028 | <ul style="list-style-type: none"> Research team member for the project "Integrative "multi-omics" and functional platform for the complete diagnostic characterization of tumors: the Italian tumor chemogenomic profiler (IT-TCP)" funded by POS (Piano Operativo Salute) – Italian Minister of Health (PI Prof. Roti Giovanni). |
| 2023-2025 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the project "Unraveling the multifaceted interactions of SERCA2 protein in the pathogenesis of Darier's disease" funded by University of Parma (Bando Ateneo – PI Prof. Feliciani Claudio) |
| 2023-2026 | <ul style="list-style-type: none"> Collaborator in project writing and research team member for the project "LIBERTY - Liquid Biopsy implementation in the management of Rare Tumors associated with hereditary syndromes" project founded by PNRR 2023 Italian Minister of |

Health (PI Prof. Percesepe).

- 2024-2025 • Collaborator in project writing and research team member for the project “**Serum-miRNA profiles and inflammatory prognostic biomarkers in sudden sensorineural hearing loss**” funded by University of Parma (azione B – PI Prof. Di Lella Filippo).
- 2024-2025 • Co-investigator for the **Human Technopole** project “**IMPRINT: Spatial transcriptomic Profiling for the Identification of genomic signatures in rare Tumors**” granted by Human Technopole Milan – Italy.
- 2024-2026 • Co-PI for the project “**The multi-omic landscape of Obsessive-Compulsive Disorder (OCD): genomic, epigenomic and transcriptomic approaches in developmental pathways of OCD**” (PI Prof. Tonna).
- 2025-2026 • PI in the project “**AURORA - Advancing high-throughput omic platform for identification of Genomic biomarkers in rare Tumors**” funded by University of Parma – FIL grant.
- 2025-2026 • PI of the **Nanopore Research Grant** by Oxford Nanopore Technologies, supporting innovative research in nanopore-based sequencing technologies for liquid biopsy profiling in rare tumors affected patients.
- 2025-2026 • PI of the project “**SPATIAL: Advanced bioinformatic analysis of spatial transcriptomics profiling for the identification of genomic signatures in rare tumors**” funded by Human Technopole Milan – Italy.
- 2025-2026 • PI of the project “**ORACLE - Omics for Rare Cancers through Liquid biopsy sequencing**” funded by Human Technopole Milan – Italy.

Publications: <https://pubmed.ncbi.nlm.nih.gov/?term=barili+v&sort=pubdate>

1. Gravagno E, Bellini M, Ambrosini E, Luberto A, Busciglio S, Vitetta G, Cannizzaro IR, Taiani A, **Barili V**[✉], Percesepe A, Uliana V, Martorana D. Genotype-Driven Diagnosis Enables Targeted Pharmacological Treatment in Brunner Syndrome: A Novel Splice-Site MAOA Variant and Case-Based Review. *Int J Mol Sci.* 2026 Jul 12;27(14):6223. doi: 10.3390/ijms27146223. PMID: 42511567; PMCID: PMC13409923.
2. Kaminska K, Moye AR, Quinodoz M, Zehr EA, Aiteur A, Calzetti G, Barberán-Martínez P, Kuehlewein L, Bodenbender JP, Ehrenberg M, Khandhadia S, Zur D, Zayit-Soudry S, **Barili V**, et al. Missense variants in KATNA1 alter microtubule dynamics and underlie dominant macular dystrophy. *Res Sq [Preprint].* 2026 Jul 7;rs.3.rs-8880283. doi: 10.21203/rs.3.rs-8880283/v1. PMID: 42466416; PMCID: PMC13370650.
3. Ceccatelli Berti C, Montali I, Doselli S, Farina B, Schivazappa S, Vecchi A, Rossi M, Reverberi V, Montali A, Sambarino D, Pelagatti A, Ferraglia F, **Barili V**, et al. Dysregulated transcription in core- and pol-specific CD8 T cells can be targeted by HDAC inhibition to improve T-cell function in chronic hepatitis B. *J Hepatol.* 2026 Jun 6:S0168-8278(26)02622-X. doi: 10.1016/j.jhep.2026.05.020. Epub ahead of print. PMID: 42250731.
4. Martins N, Terradas M, Garcia-Pelaez J, Sommer AK, Demidov G, Matalonga L, Ramos-Muntada M, Te Paske IBAW, Spier I, Mensenkamp A, Schuurs-Hoeijmakers J, Gullo I, São José C, Pedro AM, Gouveia Silva R, Sousa AB, Amoroso Canão P, Fernandes S, Garrido L, Dupont J, Maia S, Sousa G, Irmejs A, **Barili V**, et al. *Genome Sequencing of Undiagnosed European Patients Suspected of Hereditary Cancer: Diagnostic Yield and Identification of Candidate Causative Variants.* *JCO Precis Oncol.* 2026 Apr;10(4):e2500354. doi: 10.1200/PO-25-00354.
5. Busciglio S, Cannizzaro IR, Luberto A, Taiani A, Moschella B, Ambrosini E, Cesarini S, Treccani M, Azzoni C, Bottarelli L, Corradi D, Uliana V, Martorana D, **Barili V**[✉], Percesepe A. *The Pathogenesis of the Neurofibroma-to-Sarcoma Transition in Neurofibromatosis Type I: From Molecular Profiles to Diagnostic Applications.* *Cancers.* 2025 Dec 11;17(24):3955. doi: 10.3390/cancers17243955. PMID: 41463204; PMCID: PMC12730839.
6. Tosi N, Bragazzi NL, Mignogna C, Treccani M, Bresciani L, Vauzour D, Malerba G, **Barili V**, Martorana D, Del Rio D, Mena P. *The impact of single nucleotide polymorphisms on the absorption, distribution, metabolism, and excretion of dietary (poly)phenols: a critical systematic review.* *Food Funct.* 2025 Dec 8;16(24):9259-9281. doi: 10.1039/d5fo03349g. PMID: 41258761.
7. Treccani M, Ghirelli L, Tosi N, Mignogna C, Minihane AM, **Barili V**, Del Rio D, Martorana D, Mena P. *A computational reference for human genomics analysis in (poly)phenol research.* *Food Funct.* 2025 Dec 8;16(24):9408-9421. doi: 10.1039/d5fo03227j. PMID: 41258737.
8. Hendricks LAJ, Verbeek KCJ, Schuurs-Hoeijmakers JHM, de Putter R, Brems H, Van Daele SH, Anastasiadou VC, Foretová L, Benusiglio PR, Gerasimenko A, Colas C, Villy MC, Houdayer C, Branchaud M, Hüneburg R, Aretz S, Jahn A, Steinke-Lange V, Innella G, Turchetti D, **Barili V**, et al. *Cancer prognosis and treatment results in patients with PTEN Hamartoma Tumour Syndrome (PHTS)-a European cohort study.* *BJC Rep.* 2025 Jun 4;3(1):42. doi: 10.1038/s44276-025-00157-y.
9. Moschella B†, Busciglio S†, Ambrosini E, Cesarini S, Caramanna L, Zanelli S, Cannizzaro IR, Luberto A, Taiani A, Treccani M, De Sensi E, Caggiati P, Azzoni C, Bottarelli L, Lorusso B, Lagrasta CAM, Montanaro A, Pagliaro L, Zamponi R, Gherli A, Martorana D, Dominici MM, De Felici Del Giudice MB, Mozzoni P, Silini EM, Neri I, Feliciani C, Roti G, Uliana V, **Barili V**[✉], Percesepe A. Genetics of Darier's Disease: New Insights into Pathogenic Mechanisms. *Genes.* 2025 Jun; 16(6):619. doi: 10.3390/genes16060619.
10. Godino L*, Ambrosini E*, **Barili V***, et al. Clinical genetic services in the Emilia-Romagna region, Italy: current activity and open issues: a mixed-method study. *J Community Genet.* 2025 Jan 11. doi: 10.1007/s12687-024-00750-7. PMID: 39797934. (* the authors **contributed equally** to this work).
11. Cannizzaro IR, Treccani M, Taiani A, Ambrosini E, Busciglio S, Cesarini S, Luberto A, De Sensi E, Moschella B, Gismondi P, Azzoni C, Bottarelli L, Giordano G, Corradi D, Silini EM, Zanatta V, Cennamo F, Bertolini P, Caggiati P, Martorana D, Uliana V, Percesepe A, **Barili V**. Proof of Concept for Genome Profiling of the Neurofibroma/Sarcoma Sequence in Neurofibromatosis Type 1. *Int J Mol Sci.* 2024 Oct 9;25(19):10822.
12. Uliana V, Ambrosini E, Taiani A, Cesarini S, Cannizzaro IR, Negrotti A, Serra W, Quintavalle G, Micale L, Fusco C, Castori M, Martorana D, Bortesi B, Belli L, Percesepe A, Pisani F, **Barili V**. Phenotypic Expansion of Autosomal Dominant LZTR1-Related Disorders with Special Emphasis on Adult-Onset Features. *Genes.* 2024 Jul 13;15(7):916. doi: 10.3390/genes15070916.
13. Vitetta G, Desiderio L, Baccolini I, Uliana V, Lanzoni G, Ghi T, Pili G, Ambrosini E, Caggiati P, **Barili V**, et al. Mosaic derivative chromosomes at chorionic villi (CV) sampling are expression of genomic instability and precursors of cryptic disease-causing rearrangements: report of further four cases. *Mol Cytogenet.* 2024 Apr 8;17(1):8. doi: 10.1186/s13039-024-00675-3. PMID: 38589928; PMCID: PMC11003029.
14. Ambrosini E, Cancilla R, Paul JJ, Bauer P, Garavaglia B, **Barili V**, Percesepe A, Negrotti A. Pure Parkinsonism as Possible Phenotype Expansion of THAP1-Related Disorders. *Mov Disord.* 2024 Feb 15. doi: 10.1002/mds.29745. PMID: 38358056.
15. **Barili V**, et al. Genetic Basis of Breast and Ovarian Cancer: Approaches and Lessons Learnt from Three Decades of Inherited Predisposition Testing. *Genes.* 2024 Feb 8;15(2):219. doi: 10.3390/genes15020219. PMID: 38397209; PMCID: PMC10888198.
16. Gemignani F, Percesepe A, Gualandi F, Allegri I, Bellanova MF, Nuredini A, Saccani E, Ambrosini E, **Barili V**[✉], Uliana V. Charcot-Marie-Tooth Disease with Myelin Protein Zero Mutation Presenting as Painful, Predominant Small-Fiber Neuropathy. *Int J Mol Sci.* 2024 Jan 29;25(3):1654.
17. Zecca A, **Barili V**, et al. High CD49a+ NK cell infiltrate is associated with poor clinical outcomes in Hepatocellular Carcinoma. *Heliyon.* 2023 Nov

- 21;9(12):e22680. doi: 10.1016/j.heliyon.2023.e22680. PMID: 38107324; PMCID: PMC10724659.
18. Tonelli L, Balla C, Famè M, Margutti A, Maniscalchi ET, De Feo G, Di Domenico A, De Raffele M, Percesepe A, Uliana V, **Barili V**, et al. SCN5A mutation is associated with a higher Shanghai Score in patients with type 1 Brugada ECG pattern. *J Cardiovasc Med* (Hagerstown). 2023 Dec 1;24(12):864-870. doi: 10.2459/JCM.0000000000001560. Epub 2023 Oct 30. PMID: 37942788.
19. Rossi M, Vecchi A, Tiezzi C, **Barili V**, al. Phenotypic CD8 T cell profiling in chronic hepatitis B to predict HBV-specific CD8 T cell susceptibility to functional restoration in vitro. *Gut*. 2023 Nov;72(11):2123-2137. doi: 10.1136/gutjnl-2022-327202. PMID: 36717219;
20. Bocquet B, Borday C, Erkilic N, Mamaeva D, Donval A, Masson-Garcia C, Parain K, Kaminska K, Quinodoz M, Perea-Romero I, Garcia-Garcia G, Jimenez-Medina C, Boukhaddaoui H, Coget A, Leboucq N, Calzetti G, Gandolfi SA, Percesepe A, **Barili V**, Uliana V, et al. TBC1D32 variants disrupt retinal ciliogenesis and cause retinitis pigmentosa. *JCI Insight*. 2023 Sep 28:e169426. doi: 10.1172/jci.insight.169426. PMID: 37768732.
21. Martorana D, **Barili V***, et al. Reassessment of the NF1 variants of unknown significance found during the 20-year activity of a genetics diagnostic laboratory. *Eur J Med Genet*. 2023 Sep 24;66(11):104847. doi: 10.1016/j.ejmg.2023.104847. PMID: 37751797.
22. **Barili V**, Fiscaro P, Boni C. Epigenetic and metabolic regulation of immunity during infection or cancer and associated immune biomarkers. *Front Immunol*. 2023 Aug 22;14:1275735. doi: 10.3389/fimmu.2023.1275735. PMID: 37675112.
23. **Barili V**, et al. Success and Pitfalls of Genetic Testing in Undiagnosed Diseases: Whole Exome Sequencing and Beyond. *Genes*. 2023; 14(6):1241. https://doi.org/10.3390/genes14061241.
24. Montali I, Ceccatelli Berti C, Morselli M, Acerbi G, **Barili V**, et al. Deregulated intracellular pathways define novel molecular targets for HBV-specific CD8 T cell reconstitution in chronic hepatitis B. *J Hepatol*. 2023 Jul;79(1):50-60. doi: 10.1016/j.jhep.2023.02.035.
25. **Barili V**, et al. A patient with mosaic USP9X gene variant. *Eur J Med Genet*. 2022 Dec;65(12):104638. doi: 10.1016/j.ejmg.2022.104638.
26. Serra W, Vitetta G, Uliana V, Barocelli F, **Barili V**, et al. Severe hypertrophic cardiomyopathy in a patient with a homozygous MYH7 gene variant. *Heliyon*. 2022 Dec 16;8(12):e12373. doi: 10.1016/j.heliyon.2022.e12373. PMID: 36593836; PMCID: PMC9803765.
27. Hendricks LAJ, ... Gerasimenko A, **Barili V**, et al. Cancer risks by sex and variant type in PTEN Hamartoma Tumor Syndrome. *J Natl Cancer Inst*. 2022 Sep 28:djac188. doi: 10.1093/jnci/djac188. Epub ahead of print. PMID: 36171661. IF = 13.8.
28. Zecca A, **Barili V**, et al. Targeting Stress Sensor Kinases in Hepatocellular Carcinoma-Infiltrating Human NK Cells as a Novel Immunotherapeutic Strategy for Liver Cancer. *Front Immunol*. 2022 May 23;13:875072.
29. **Barili V**, et al. Unraveling the Multifaceted Nature of CD8 T Cell Exhaustion Provides the Molecular Basis for Therapeutic T Cell Reconstitution in Chronic Hepatitis B and C. *Cells*. 2021 Sep 28;10(10):2563. doi: 10.3390/cells10102563. PMID: 34685543;
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31. Acerbi G, Montali I, Ferrigno GD, **Barili V**, et al. Functional reconstitution of HBV-specific CD8 T cells by in vitro polyphenol treatment in chronic hepatitis B. *J Hepatol*. 2021 Apr;74(4):783-793. doi: 10.1016/j.jhep.2020.10.034. Epub 2020 Nov 11. PMID: 33188902;
32. Zecca A, **Barili V**, et al. Intratumor Regulatory Noncytotoxic NK Cells in Patients with Hepatocellular Carcinoma. *Cells*. 2021 Mar 10;10(3):614.
33. **Barili V**, et al. Metabolic regulation of the HBV-specific T cell function. *Antiviral Res*. 2021 Jan;185:104989. doi: 10.1016/j.antiviral.2020.104989. Epub 2020 Nov 26. PMID: 33248194;
34. Fiscaro P*, **Barili V***, et al. Pathogenetic Mechanisms of T Cell Dysfunction in Chronic HBV Infection and Related Therapeutic Approaches. *Front Immunol*. 2020 May 12;11:849. (* Fiscaro P. and Barili V. **contributed equally** to this work).
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36. Cavazzoni A, Digiacoio G, Alfieri R, La Monica S, Fumarola C, Galetti M, Bonelli M, Cretella D, **Barili V**, et al. Pemetrexed Enhances Membrane PD-L1 Expression and Potentiates T Cell-Mediated Cytotoxicity by Anti-PD-L1 Antibody Therapy in Non-Small-Cell Lung Cancer. *Cancers* (Basel). 2020 Mar 12;12(3);
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38. Fiscaro P, Rossi M, Vecchi A, Acerbi G, **Barili V**, et al. The Good and the Bad of Natural Killer Cells in Virus Control: Perspective for Anti-HBV Therapy. *Int J Mol Sci*. 2019 Oct 13;20(20);
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I am in the scientific organizers of the **'3rd European Congress on Human Genetics'** on June 19-20, 2025 (see <https://scisynopsisconferences.com/human-genetics/>), which will be held in Vienna. The congress will focus on the latest research in the field of genetics and pharmacogenetics applied to health and diseases.

Book Chapters:

1. Ferrari C, Barili V, Varchetta S, Mondelli M. Immune mechanisms of viral clearance and disease pathogenesis during viral hepatitis. In "The Liver" Arias Ed. 2018.

2. Ferrari C, Barili V, Rossi M, Boni C, Fisicaro P. Cellular immunity and occult in HBV infection. In "Occult Hepatitis B Infection".

D. Additional Information: Research Support and/or Scholastic Performance

Dr. Barili's academic trajectory has been marked by excellence. She earned her Bachelor's Degree in Biotechnology in 2003 and her Master's Degree in Biotechnology for Health in 2006 from the University of Parma and both awarded with top honors (110/110 cum laude). Her doctoral studies were completed at the San Raffaele Scientific Institute in Milan, where she received a PhD in Molecular Medicine in 2011. During her PhD fellowship, Dr. Barili worked on the functional analysis of transcription factors regulating neural stem cells during neurogenesis. She employed a variety of advanced molecular approaches, including mouse models, ex vivo systems, and cell cultures, gaining broad methodological expertise in molecular biology and experimental embryology.

The research output reflects her dedication to advancing knowledge through high-quality research, with a total of **52 peer-reviewed publications** (15 as first/last/corresponding author) and contribution to **2 book chapters**, an **h-index of 23**, **1694 citations** in the scientific literature, underscoring the broad influence of her work. During her career, she has also disseminated her work through **20 oral presentations** at national and international congresses.

Editorial board

- Guest editor in *Frontiers of Imm* for the research collection "Epigenetic and Metabolic Regulation of Immunity during Infection or Cancer and Associated Immune Biomarkers" from 2022 (<https://www.frontiersin.org/research-topics/43988/epigenetic-and-metabolic-regulation-of-immunity-during-infection-or-cancer-and-associated-immune-bio#overview>).
- From 2025 in the editorial board of *Discover Oncology* journal of the Springer Nature Editorial Academy.
- From 2025, guest editor in the *Journal of Translational Genetics and Genomics* for the research collection "Proceedings of 3rd European Congress on Human Genetics" (<https://www.oaepublish.com/specials/jtgg.2331>)
- **Referee** for international scientific journals as: Scientific Reports (NaturePortfolio), Genes and Diseases (ScienceDirect), Journal of Hepatology (ScienceDirect), Hepatology, Gut (BMJournals), Molecular Genetics and Genomics (Springer Nature), Antiviral Research (ScienceDirect), Future Oncology, Frontiers of Oncology, Frontiers in Pediatrics, Genetics and Immunology.
- **Grants** reviewer for **Swiss National Science Foundation** from 2023.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2024- to date
2024- to date
2021- to date
2017

Member, American Society of Human Genetics (ASHG)
Member, European Society of Human Genetics (ESHG)
Member, Società Italiana di Genetica Umana (SIGU)
Member, European Association for the Study of the Liver (EASL)

Mother tongue(s)
Other tongue(s)

Italian
Fluent English

Date, 20/09/2026

Signature

Valeria Barili