Chiara Chiereghin

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Professional Experience

July 2021 – present	**Lab Manager** Genomics Research Centre, *Human Technopole*, Milano, IT
2019 – 2021	**Postdoctoral Research Fellow** Department of Biomedical Sciences, *Humanitas Research Center*, Rozzano, IT
2015 – 2019	**PhD student in Molecular Genetics** Department of Biomedical Sciences, *Humanitas Research Center*, Rozzano, IT
2018	**Visiting PhD student** Wolfson Centre for Age-Related Diseases, *King's College London*, London, UK
2017	**Short-term Scholar** *Marine Biological Laboratory*, Woods Hole, MA, USA
2014 – 2015	**Research collaborator** Department of Health Sciences, *Università degli Studi di Milano*, Milano, IT
2013-2014	**MSc research project** Department of Medical Biotechnology and Translational Medicine (BIOMETRA), *Università degli Studi di Milano*, Milano, IT
2012	**BSc Internship** Pathology department of Molecular Tumor Genetics, *Leiden University Medical Center,* Leiden, NL

Education

2015-2019	**PhD in Molecular Genetics** *Humanitas Clinical and Research Center*, Rozzano (Milano), IT, Affiliated Research Centre to the *Open University*, Milton Keynes, UK Dissertation: Unravelling the genetic bases of hearing loss: functional characterisation of pathogenic variants and novel candidate genes identified by whole-exome sequencing
2012-2014	**MSc Degree in Medical Biotechnology and Molecular Medicine** *Università degli Studi di Milano*, Milano, IT Dissertation: Analysis of six families with hereditary nonsyndromic hearing loss by whole-exome sequencing Final grade: 110/110 cum laude and academic special mention
2009-2012	**BSc Degree in Medical Biotechnology** *Università degli Studi di Milano*, Milano, IT Dissertation: Chromene derivatives as anticancer agents: compound screening in colorectal cancer and thyroid carcinoma cell lines Final grade: 110/110 cum laude and academic special mention

Skills and techniques

Technical skills

Cellular and Molecular Biology techniques

- cell culturing, transfections, expression of recombinant proteins, immunofluorescence techniques
- cryopreservation and biobanking of human blood/bone marrow cells
- DNA and RNA extraction from cell cultures and biological samples including blood and fresh, frozen and FFPE tissues. Use of robotic workstations for automated purification of nucleic acids (Qiagen Qiacube and Promega Maxwell).
- PCR, RT-PCR, Real-Time PCR, High-Resolution Melting, microsatellite analysis, Sanger sequencing, gel electrophoresis, molecular cloning, site-specific *in-vitro* mutagenesis, microbiological cultures, bacterial transformation. Use of liquid handler for automated set-up of PCR reactions (Eppendorf workstation epMotion 5075).
- Whole-exome sequencing, targeted-resequencing and RNA-sequencing library preparation
- Protein extraction, SDS-PAGE, Western Blot
- Tissue fixation and paraffin inclusion, microtome sectioning, immunohistochemical techniques
- Confocal, fluorescence and light microscopy
- Flow cytometry sample preparation and basics of sorting

Bioinformatics and statistics:

- Primer and probe design tools, DNA and protein databank: NCBI, UCSC Genome Browser, Ensembl, PDB, Uniprot, ExPasy, Swiss-Prot
- Exome data analysis: basic use of bioinformatic tools, e.g. Annovar, Galaxy, IGV
- Statistical analysis software: basics of Stata

Animal care – mouse:

- Handling, genotyping, IP injections, Auditory Brainstem Response recordings

Organisational skills	Coordinating and planning research activities, prioritising diverse tasks to meet deadlines with attention to details.
Tutoring skills	Trained tutor in "Virgilio Program" founded by Cariplo Foundation. Supervised and trained 1 MSc, 3 MD and 3 PhD students.
Language skills	Italian (native), English (fluent), French (intermediate)
Computer skills	Good knowledge of MS Windows and basics of Ubuntu operating system Good knowledge of MS Office packages

Scientific Publications

- **Chiereghin C**, Travaglino E, Zampini M, Saba E, Saitta C, Riva E, Bersanelli M, Della Porta MG. The Genetics of Myelodysplastic Syndromes: Clinical Relevance. Genes (Basel). 2021 Jul 27;12(8):1144.
- Rossi M, Meggendorfer M, Zampini M, Tettamanti M, Riva E, Travaglino E, Bersanelli M, Mandelli S, Galbussera AA, Mosca E, Saba E, **Chiereghin C**, Manes N, Milanesi C, Ubezio M, Morabito L, Peano C, Soldà G, Asselta R, Duga S, Selmi C, De Santis M, Malik K, Maggioni G, Bicchieri ME, Campagna A, Tentori CA, Russo A, Civilini E, Allavena P, Piazza R, Corrao G, Sala C, Termanini A, Giordano L, Detoma P, Malabaila A, Sala L, Rosso S, Zanetti R, Saitta C, Riva E, Condorelli G, Passamonti F, Santoro A, Sole F, Platzbecker U, Fenaux P,

Bolli N, Castellani G, Kern W, Vassiliou G, Haferlach T, Lucca U, Della Porta MG. Clinical relevance of clonal hematopoiesis in the oldest-old population. Blood. 2021 Jun 14:blood.2021011320.

- Corbetta M, **Chiereghin C**, De Simone I, Soldà G, Zuradelli M, Giunta M, Lughezzani G, Buffi NM, Hurle R, Saita A, Casale P, Asselta R, Lazzeri M, Guazzoni G, Duga S. Post-Biopsy Cell-Free DNA From Blood: An Open Window on Primary Prostate Cancer Genetics and Biology. Front Oncol. 2021 May 24;11:654140.
- **Chiereghin C**, Robusto M, Mauri L, Primignani P, Castorina P, Ambrosetti U, Duga S, Asselta R, Soldà G. *SLC22A4* Gene in Hereditary Non-syndromic Hearing Loss: Recurrence and Incomplete Penetrance of the p.C113Y Mutation in Northwest Africa. Front Genet. 2021 Feb 10;12:606630.
- Parenti S, Rontauroli S, Carretta C, Mallia S, Genovese E, **Chiereghin C**, Peano C, Tavernari L, Bianchi E, Fantini S, Sartini S, Romano O, Bicciato S, Tagliafico E, Della Porta M, Manfredini R. Mutated clones driving leukemic transformation are already detectable at the single-cell level in CD34-positive cells in the chronic phase of primary myelofibrosis. NPJ Precis Oncol. 2021 Feb 4;5(1):4.
- Bersanelli M, Travaglino E, Meggendorfer M, Matteuzzi T, Sala C, Mosca E, **Chiereghin C**, Di Nanni N, Gnocchi M, Zampini M, Rossi M, Maggioni G, Termanini A, Angelucci E, Bernardi M, Borin L, Bruno B, Bonifazi F, Santini V, Bacigalupo A, Voso MT, Oliva E, Riva M, Ubezio M, Morabito L, Campagna A, Saitta C, Savevski V, Giampieri E, Remondini D, Passamonti F, Ciceri F, Bolli N, Rambaldi A, Kern W, Kordasti S, Sole F, Palomo L, Sanz G, Santoro A, Platzbecker U, Fenaux P, Milanesi L, Haferlach T, Castellani G, Della Porta MG. Classification and Personalized Prognostic Assessment on the Basis of Clinical and Genomic Features in Myelodysplastic Syndromes. J Clin Oncol. 2021 Apr 10;39(11):1223-1233.
- Cortesi A, Pesant M, Sinha S, Marasca F, Sala E, Gregoretti F, Antonelli L, Oliva G, **Chiereghin C**, Soldà G, Bodega B. 4q-D4Z4 chromatin architecture regulates the transcription of muscle atrophic genes in facioscapulohumeral muscular dystrophy. Genome Res. 2019 Jun;29(6):883-895.
- **Chiereghin C**, Robusto M, Mastrangelo A, Castorina P, Montini G, Giani M, Duga S, Asselta R, Soldà G. Alport syndrome cold cases: missing mutations identified by exome sequencing and functional analysis. PLoS One. 2017 Jun 1;12(6).
- Soldà G, Caccia S, Robusto M, **Chiereghin C**, Castorina P, Ambrosetti U, Duga S, Asselta R. First independent replication of the involvement of LARS2 in Perrault syndrome by whole-exome sequencing of an Italian family. J Hum Genet. 2016 Apr;61(4):295-300.

Awards

2018	**Boehringer Ingelheim Fonds travel grant** **AIBG young researcher grant for short stays in Italy or abroad**
2017	**MBL Award** *Participation to*: The Biology of the Inner Ear course, Marine Biological Laboratory, Woods Hole, MA, USA
2016	**Action on Hearing Loss Registration Bursary** *Participation to*: The 10th Molecular Biology of Hearing and Deafness conference, Hinxton, UK
2014	**Qu.A.S (Cassa Assistenza Sanitaria Quadri) Graduate Award** Award for thesis in the field of clinical research aimed at identifying new diagnostic or therapeutic applications, Roma, IT
2012	**LLP Erasmus grant** Selected in first position, Leiden, NL