



## **Paola Ghiorzo**

Full professor

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### ***Education and training***

1994

#### **Master of Science in Biological Sciences**

(final mark 110/110 cum laude)

University of Genoa - Genoa - IT

1999

#### **PhD in Human Molecular and Cellular Biology**

Univeristy of Turin - Turin - IT

2008

#### **Specialization in Medical Genetics**

final mark 50/50 cum laude

University of Genoa - Genoa - IT

### ***Academic experience***

2010 - 2014

#### **Assistant Professor-Biology and Genetics**

University of Genoa - Genoa - IT

2014 - 2017

#### **Associate Professor- Biology and Genetics**

University of Genoa - Genoa - IT

2017 - ONGOING

#### **Full Professor - Biology and Genetics**

University of Genoa - Genoa - IT

### ***Language skills***

#### **English**

Proficient

### ***Teaching activity***

1996 – Applied Biology, General and Molecular Genetics, Laboratory for Medical students and technician trainees.

Degree courses in Medicine, Biotechnology and Health-Related Professions. Medical School, University of Genoa.

2010 - Faculty member, Doctoral School, Chair of curriculum in Cancer Genetics and Molecular Pathology , University of Genoa.

2011 – Faculty member, Spacialization School in Nephrology, Clinical Pathology, Medical Genetics, Rheumatology, University of Genoa.

2020- Teacher for the European Joint Action on Cancer IPAAC Course - Istituto Superiore di Sanità ([www.ipaac.eu](http://www.ipaac.eu)) “Education and Training on Oncogenomics for Healthcare Professionals”

## ***Research interests***

Main areas of interest

-Biology and genetics of neoplastic cells: characterization of cellular and molecular mechanisms of neoplastic transformation

-Identification and structural and functional characterization of susceptibility genes to the development of hereditary cancers through molecular genetic studies (with particular application to melanoma, pancreatic carcinoma, hereditary and rare cancers).

In particular:

-Functional analysis of genomic variants and regulation of the expression of candidate susceptibility genes

-Regulation and expression of growth factors and transcription factors in neoplastic cell lines

-Expression studies of oncogenes, tumor suppressors and transcription factors in the genesis of melanoma and pancreatic carcinoma and other rare cancer syndromes

-Finding of new susceptibility genes for melanoma and other hereditary cancer syndromes, identification of risk modifying alleles through family-based or population-based association studies. Genome-wide association studies and next generation sequencing (exomic and panel sequencing). Development of next generation sequencing approaches (exome and panel sequencing).

-Penetrance analysis of variants in oncogenes and tumor suppressors in familial melanoma in Italy and in collaboration with international consortia.

Role of genetic modifications in tumor progression and metastasis. -

Improvement of molecular diagnostics of rare solid tumors for the characterization of new target molecules for targeted therapy and/or mechanisms of resistance and/or predictive parameters of response to innovative therapies.

-Integration and correlation between somatic (tissue and liquid biopsy) and germline analyses in the understanding of the evolution of the biological behavior of the tumor.

- Research of genetic determinants of response to therapy, of genes and environmental exposures predictive of risk of relapse for metastatic disease.

## ***Editorial activity***

Review and Editorial

Reviewer for more than 30 journals

Editorial Board Member of the World Journal of Gastroenterology, Cancers (Guest Editor) International Journal of Medical Sciences.

Reviewer Reprise for grants from the Italian Ministry of Education, Universities and Research, projects FIRB and SIR, assegni di ricerca, Rita Levi Montalcini young investigators awards . Reviewer for the Italian Ministry of Health (Editor).

### ***Other professional activities***

#### Memberships and Honors

1997- Member of the International Melanoma Genetics Consortium (coordinator Julia Newton-Bishop, Imperial Research Cancer Foundation, Leeds, UK). The consortium was funded by the NIH from 1999 to 2004 and then from 2005 to 2011 by the EU Commission as the GenoMEL Network of Excellence ([www.GenoMel.org](http://www.GenoMel.org)).

Co-Principal Investigator of the Italian team, University of Genoa, PI since 2017

2005-2011 Genoa unit in charge of the Network of Excellence exchange program between GenoMEL members

2004- Italian Association of Biology and Genetics (AIBG)

2006 – Member of the Steering Committee of the Pancreatic Cancer Collaborative Registry (PCCR) at the University of Nebraska Medical Center. (<http://pccr.unmc.edu/>).

PCCR Italian team, University of Genoa, center coordinator and Principal Investigator (2014-).

2008- Italian Society of Human Genetics (SIGU)

2011 - Principal Investigator of the Genoa team belonging to the International Consortium BioGenoMEL ([www.BioGenoMEL.org](http://www.BioGenoMEL.org), coordinator Julia Newton-Bishop, Imperial Research Cancer Foundation, Leeds, UK)

2011 - Chair of the Italian Melanoma Intergroup Scientific Committee for the genetics/genomic basic research area ([www.imi.org](http://www.imi.org))

2014 - Principal Investigator of the Genoa Italian Team within the International consortium Melanostrum (<https://nciphub.org/groups/melanostrum>)

10/2016- Member of the Italian Alliance Against Cancer (ACC) Melanoma Working group for basic/molecular/preclinical studies for the University Hospital Ospedale Policlinico San Martino, Genoa

11/2017- Full Professor (Biology and Genetics), School of Medicine, University of Genoa, and Genetics of Rare Cancers Unit Head, San Martino Research Hospital

2017-2019- Italian Society of Human Genetics -Board of Directors

2018- Member of the Ethical Committee Regione Liguria (Genetics)

2018- Member of the National Commission for Abilitazione Scientifica Nazionale (ASN) 05/F1-BIO13

2020- Appointment member SC 05/F1 of the GEV, ANVUR Group of Expert Evaluators ANVUR for research quality assessment VQR 2015-2019; deputy coordinator GEV area 05.

Top Italian scientists list (<https://topitalianscientists.org>)