



# Claudia Cantoni

Associate professor

✉ claudia.cantoni@unige.it

☎ +39 010 56362845

## *Education and training*

2001

### **PhD in Immunological Sciences**

Molecular characterization of non MHC-specific receptors expressed by human Natural Killer cells

University of Genova - Genova - IT

1995

### **Specialization in Clinical Pathology**

Characterization of receptors specific for HLA-C alleles (p58) expressed by Natural Killer cells - 50/50 cum laude

University of Genova - Genova - IT

1989

### **Degree in Pharmacy**

A novel type of GABA receptor in rat spinal cord - 110/110 e lode

University of Genova - Genova - IT

1984

### **High School diploma**

52/60

Foreign Language High School Grazia Deledda - Genova - IT

## *Academic experience*

2014 - ONGOING

### **Associate Professor - MED04 (General Pathology)**

University of Genova - Department of Experimental Medicine - Genova - IT

Teaching and Research Activities

2001 - ONGOING

### **Staff appointment**

G. Gaslini Institute - Lab. Clinical and Experimental Immunology - Genova - IT

Teaching and Research Activities

2001 - ONGOING

### **Member of the Center of Excellence for Biomedical**

## **Research (CEBR)**

University of Genova - Genova - IT  
Teaching and Research Activities

2000 - 2014

### **Assistant Professor - MED04 (General Pathology)**

University of Genova - Department of Experimental Medicine - Genova - IT  
Teaching and Research Activities

1996 - 2000

### **PhD program on Immunological Sciences**

University of Genova - Genova - IT  
Research Activity at the National Institute for Cancer Research - Lab.  
Immunopathology

1995 - 1996

### **Research fellowship for AIDS research (Istituto Superiore di Sanità)**

National Institute for Cancer Research - Lab. Immunopathology - Genova - IT  
Research Activity

1992 - 1994

### **Research fellowship (Italian Association for Cancer Research)**

National Institute for Cancer Research - Lab. Pharmacology - Genova - IT  
Research Activity

1990 - 1991

### **Research fellow**

National Institute for Cancer Research - Lab. Pharmacology - Genova - IT  
Research Activity

## ***Language skills***

### **English**

Proficient

### **German**

Independent

### **French**

Basic

## ***Teaching activity***

Associate Professor in General Pathology at the School of Medical and Pharmaceutical Sciences, University of Genova  
- General Pathology and Immunology Courses at the Schools of Medicine, Pharmacy, Pediatric Nursing, Medical-Pharmaceutical Biotechnology, Nursing and Obstetric Sciences;  
- Specialization Courses in Clinical Pathology, Oncology, Hospital Pharmacy;  
- Supervision of students for thesis preparation.

## ***Postgraduate research and teaching activity***

### **Supervision of PhD students, residents and post-doctoral fellows**

Supervision of PhD students for the development of research projects and for PhD thesis preparation

### **PhD committees membership**

- Member of the PhD Program on Clinical and Experimental Immunology at the Center for Excellence in Biomedical Research (CEBR), University of Genova, Italy
- International Ph.D. jury member for PhD in Veterinary Sciences: Faculty of Veterinary Medicine, University of Ghent, Belgium (2015)

## ***Research interests***

Research is mainly focused on the function of human Natural Killer (NK) cells in both physiological and pathological conditions:

a) Cellular and molecular interactions involving NK cells, tumor cells and tumor microenvironment:

- identification of ligands recognized by activating NK receptors;
- identification of novel tumor markers;
- role of tumor microenvironment in the regulation of NK cell function;
- tumor-derived extracellular vesicles and their interaction with NK cells and cells in the tumor microenvironment;
- characterization of tumor escape mechanisms from the immune system.

b) Interactions between NK cells and virus infected cells:

- effect of viral infection on the expression of NK receptor ligands;
- characterization of viral escape mechanisms from the immune system.

c) Development of proteomic approaches for the identification of membrane proteins expressed by tumor cells and for proteomic profiling of tumor cells.

d) Immune response against Wilms' tumor: cellular and molecular interactions between NK cells and tumor cells and identification of novel therapeutic targets.

Publications "in extenso" in international peer-reviewed journals: 87

H-index = 42 (Web of Science)

Main national and international collaborations:

Andrea Petretto, Genny Del Zotto, Lab. Core Facilities, IRCCS Ist. G. Gaslini, Genova, Italy

Giovanni Candiano, Lab. Fisiopatologia dell'Uremia, IRCCS Ist. G. Gaslini, Genova, Italy

Massimo Vitale, Andrea De Maria, IRCCS Ospedale Policlinico San Martino, Genova, Italy

Lorenzo Moretta, Ospedale Pediatrico Bambino Gesù, Roma, Italy

Herman Favoreel, Università di Ghent, Belgio

Eric Vivier, CIML Marseille, France

## ***Grants***

**2018 - ONGOING**

### **Immune response against Wilms' tumor**

Compagnia San Paolo - IT

165.000 Euro - Participant

The project is carried out in the Laboratory of Clinical and Experimental Immunology at the Gaslini Institute, in collaboration with the Child Kidney Disease Foundation and with the Laboratory of Physiopathology of Uremia of the same institute.

This project aims to analyze the immune response against Wilms' tumor and to characterize cellular and molecular interactions, with the goal of identifying novel possible therapeutic targets.

### ***Editorial activity***

- Reviewer for international peer-reviewed journals, including *Frontiers in Immunology*, *Immunology Letters*, *Human Immunology*, *Journal Immunology Research*, *Stem Cells International*
- Reviewer for SIR (Scientific Independence of young Researchers) program (2014)
- Reviewer for Wellbeing of Women Research Grant 2015 - United Kingdom
- Member of REPRISE, Register of Expert Peer-Reviewers for Italian Scientific Evaluation, Ministry of Education of the University and Research (MIUR) (2015-today)
- Reviewer for the CORE 2018 Multiannual Thematic Research Programme, Fonds National de la Recherche Luxembourg