PERSONAL INFORMATION **IRMA COLOMBO**

PRESENT POSITION **Associate Professor**

STUDY TITLE **PhD in Biochemistry**

## WORK EXPERIENCE

from 01/03/2005 to present

**Associate Professor (SSD BIO/10 - Biochemistry)**
at the Department of Pharmacological and Biomolecular Sciences, Faculty of Pharmaceutical Sciences, University of Milano
Teaching and tutoring activities in the Degree Course in Pharmacy and in the Degree Course in Pharmaceutical Chemistry and Technology, and scientific research in the fields of biochemistry and molecular biology

from 01/06/1996 to 02/01/2005

**Researcher (SSD E05/A - Biochemistry)**
at the Institute of General Physiology and Biological Chemistry, Faculty of Pharmacy, University of Milano
Teaching and tutoring activity in the Degree Course in Pharmaceutical Biotechnology and in the Degree Course in Pharmaceutical Chemistry and Technology, and in scientific research in the fields of biochemistry and molecular biology

from 01/07/1995 to 31/05/1996

**Post-Doctoral Fellow**
at the Institute of General Physiology and Biological Chemistry, Faculty of Pharmacy, University of Milano
Scientific research activity in the fields of biochemistry and molecular biology

from 01/11/1993 to 30/06/1995

**Fellow**
at the Institute of General Physiology and Biological Chemistry, Faculty of Pharmacy, University of Milano
Scientific research activity in the fields of biochemistry and molecular biology

from 01/11/1989 to 30/10/1993

**Doctoral Research Fellow**
at the Division of Biochemistry and Genetics of the National Neurological Institute “C. Besta”, Milano
Scientific research activity in the fields of biochemistry and molecular biology

from 01/10/1988 to 31/10/1989

**Fellow**
at the Division of Biochemistry and Genetics of the National Neurological Institute “C. Besta”, Milano
Scientific research activity in the fields of biochemistry and molecular biology

from 01/02/1986 to 31/07/1988

**Graduating student**
at the Institute of Biochemical and Evolutionary Genetics (I.G.B.E.), C.N.R., Pavia
Scientific research activity in the fields of biochemistry and molecular biology

## EDUCATION AND TRAINING

November 2000 Certificate of participation in the practical course of *Bioinformatics* (Torino)

September 1994

**PhD in Biochemistry**
Degree obtained after having attended the four-year PhD course in Biochemistry (5th cycle) at the University of Milano

June 1991 Certificate of participation in the practical course of *Molecular Biology in Neurology* (Milano)

March 1988

**Doctor of Chemistry and Pharmaceutical Technologies**
Title obtained after having attended the five-year degree course in Chemistry and Pharmaceutical Technologies at the University of Milan (vote: 110/110 cum laude)

July 1981

**Diploma of scientific maturity**
after attending the Scientific High School "A. Tosi ” in Busto Arsizio (VA)

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## PERSONAL SKILLS

**Mother tongue** Italian

**Other language** English

**Communication skills** Good communication skills gained through years of teaching and seminar and conference activities

**Organisational / managerial skills**

- Coordination of laboratory research activity
- Supervision and tutoring of the research activity of PhD students in Biochemistry and undergraduates both for three-year courses in Pharmaceutical Biotechnologies and Master's Degrees in Pharmaceutical Chemistry and Technology and in Drug Biotechnology
- Supervisor and co-examiner of graduation thesis for the Degree Course in Pharmacy
- Orientation and tutoring for Italian and foreign students for the Degree Course in Pharmacy
- Tutoring for professional internship in pharmacy for the Degree Course in Pharmacy
- Coordination of transfers and course changes for the Degree Course in Pharmacy
- Secretary of the Educational Board of the Degree Course in Pharmacy
- Organization of orientation/reception events for high school students for the Faculty of Pharmaceutical Sciences and freshmen for the Degree Course in Pharmacy
- Member of the Commission for the Reorganization of the Degree Course in Pharmacy
- Member of Commissions for the assignment of tutoring activities and scholarship
- Member of Commissions for public competitions based on qualifications and tests
- Member of the Council of the Department Pharmacological and Biomolecular Sciences, University of Milano (2012-2014)
- Member of the Academic Board for the Doctorate in Biochemistry of the University of Milano (2000-2010)
- Member of the Educational Regulation Commission of the Faculty of Pharmacy (2001-2002)

**Job-related skills**

**TEACHING ACTIVITY**

- Lectures and verification of the skills acquired by students, for the course of *General Biochemistry* (from 2013 to present)
- Lectures, exercises in the classroom and verification of the skills acquired by students, for the course of *Metabolic and Functional Biochemistry* for the Degree Course in Pharmacy at the University of Milano (from 2013 to present) and the course of *Applied Medical Biochimica/Metabolic and Functional Biochemistry* for the Degree Course in Pharmacy at the “Nostra Signora del Buon Consiglio” University (Tirana, Albania) (from 2010 to 2017)
- Lectures and verification of the skills acquired by students, for the course of *Molecular Biology* for the Degree Course in Pharmaceutical Chemistry and Technology (from 1999 to present)
- Lectures and verification of the skills acquired by students, for the course of *Applied Medical Biochimica/Metabolic and Functional Biochemistry* for the Degree Course in Pharmacy at the “Nostra Signora del Buon Consiglio” University (Tirana, Albania) (from 2010 to 2017)
- Lectures, laboratory practice, and verification of the skills acquired by the students, for the course of *Molecular Biology* for the Degree Course in Pharmaceutical Biotechnology (2001-2013)
- Lectures and verification of the skills acquired by the students, for the course of *Biomolecules applied to the study of biological biosystems* for the Degree Course in Pharmaceutical Chemistry and Technology (from 2013 to 2015)
- Lectures, laboratory practice and verification of the skills acquired by the students, for the teaching of biomolecular technologies for the Interfaculty Degree Course in Biotechnology (from 2001 to 2002)

**RESEARCH ACTIVITY**

The scientific activity carried out over the years has been directed to the development and in-depth study of various issues, some of which are relevant not only for the basic biochemical aspects, but also for the implications that these investigations have had or could have in the clinical field, both diagnostic and/or therapeutic. The study of these topics has allowed the learning, development and application of both purely biochemical and biotechnological methodologies.

*Acquired technical skills:*

- purification and biochemical-functional characterization of proteins from cells and tissues;
- purification, analysis and manipulation of nucleic acids;
- isolation, characterization, cloning and chromosomal localization of genes;

- identification of mutations and gene polymorphisms;
- expression of exogenous genes in both eukaryotic and prokaryotic cells;
- production, purification and characterization of recombinant proteins in *E.coli*;
- isolation, fractionation, purification and characterization of lipid components from cells in culture and tissues;
- sphingolipid metabolism in both physiological and pathological cellular events;
- biochemical and molecular aspects of the signalling pathways activated by EGFR and Erb-2 receptors;
- cell cultures.

Currently, as a member of the research group of the *Laboratory of Biochemistry of Membranes and Applied Nutrition* of the Department of Pharmacological and Biomolecular Sciences (University of Milano), the research activity is mainly aimed to the study of the quali- and quantitative profile of simple and complex lipids in animal and cellular models, and in humans, both physiological and pathological conditions, to the identification of structure-function correlations and to investigation, at molecular level, of their metabolism.

**Digital skills**

- Good knowledge of Windows operating systems
- Good knowledge of office suite tools (word processor, Excel spreadsheet, PowerPoint presentation software)
- Basic knowledge of the program for digital processing of Adobe Photoshop images
- Regular use of the Internet and electronic mail

## ADDITIONAL INFORMATION

**Scientific production**

Results of my researches are summed up in:
- 54 publications in International relevant scientific journals (total IF: 135,74; Scholar HI 13)
- 3 International patents
- 52 communications to National and International Congresses (invited speaker at 2 International Congresses and 4 National Congresses))

**Scientific societies**

Member of the Italian Society of Biochemistry and Molecular Biology

**Personal information**

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information.

Date, 13/02/2019 Signature