

**CURRICULUM VITAE**  
**Donatella Barisani**

***Education:***

November 2000 Specialization in Medical Genetics (70/70 cum laude), University of Milan, Italy.  
July 1994 Specialization in Gastroenterology (70/70 cum laude), University of Milan, Italy.  
March 1990 M.D. (110/110 cum laude), University of Milan, Italy.

***Postdoctoral training:***

October 1996- November 2000 Fellowship in Medical Genetics, University of Milan, Italy  
September 1995-September 1996 Research Fellow, Department of Biology and Genetics, University of Milan, Italy  
January-June 1995 Research Fellow, Nutrition Department, Harvard School of Public Health, Boston, MA, USA  
August 1992-August 1995 Research Fellow, Gastroenterology Division, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, U.S.A  
July 1990-July 1992 Fellowship in Gastroenterology University of Milan, Italy.

***Licensure:***

June 1990 Italian Board of Internal Medicine.

***Academic Appointments:***

November 2010 – present Associate Professor in Applied Biology (tenure) University of Milano-Bicocca, Milan, Italy.  
May – November 2008 Fulbright Visiting Scientist, Gastroenterology Division, BIDMC, Harvard Medical School, Boston, MA, USA.  
March 2002 – October 2010 Assistant Professor in Applied Biology (tenure) University of Milano-Bicocca, Milan, Italy.  
December 2000-February 2002 Tutor in Biology and Genetics at the University of Milano-Bicocca, Milan, Italy.

***Awards***

2007 Fulbright Research Scholarship  
2001 Research award Ospedale Maggiore, Milano.  
1999 Research award Ospedale Maggiore, Milano.  
1999 Bik Goulden award for gastroenterology research.  
1998 Research award Ospedale Maggiore, Milano.  
1997 AISF (Italian Association for the Study of the Liver) research award.  
1996 SIGE (Italian Gastroenterological Association) research award.

**English knowledge:**

October 1994 Test of English as a Foreign Language, TOEFL, 657 out of 670 (US).  
October 1994 Test of Written English, TWE, 6 out of 6 (US).  
December 1988 Proficiency Certificate of English, grade C (UK).  
December 1985 First Certificate of English, grade A (UK).

**FMGEMS Examination:**

January 1991 Basic science (part I).  
July 1990 English test and clinical science (part II).

**Speaker in National and International Congresses**

She was a selected speaker in more than 30 congresses, including:

- European Iron Club 2011, Leuven, Belgium.
- Digestive Disease Week 2009, Chicago, IL, USA.
- European Iron Club 2006, Barcelona, Spain.
- 11<sup>th</sup> International Symposium on Coeliac Disease. 2004, Belfast, Northern Ireland.
- Bioiron 2001, Cairns, Australia
- European Iron Club 2000, Stockholm, Sweden
- Fifth conference of the International Association for the study of Disorders of Iron Metabolism, 1995, Boston, U.S.A.
- Digestive Disease Week 1994, New Orleans, USA,
- European Iron Club 1994, Gargnano, Italy,

**Reviewer activity**

She is member of the Editorial Board of The American Journal of Physiology and of the Muscles, Ligaments and Tendons Journal.

She has served as reviewer for international journals such as: New England Journal of Medicine, The Lancet, Gut, Journal of Hepatology, Journal of Pathology, The International Journal of Biochemistry and Cell Biology, Cellular and Molecular Life Sciences, Haematologica, Italian Journal of Gastroenterology, Physiological Genomics, European Journal of Immunology.

**Awarded grants**

2014 Competitive grant from the University of Milano Bicocca (PI).  
2012 Grant from the Italian Ministry of Research on regulation of iron metabolism (co-investigator).  
2009-2011 Grant from the Italian Ministry of Research on hypoxia regulation of iron metabolism (co-investigator).  
2008-2010 Grant from Cariplo Foundation The Iron-Hypoxia link: identification of potential markers for Hypoxia-related disorders (co-investigator)  
2004-2006 Grant from the Italian Ministry of Research on postgenomic studies in iron metabolism. (Head of Research Unit)  
2002-2004 Grant from the Italian Ministry of Health for the study of genes involved in determining different clinical manifestation in celiac disease (Head of Research Unit)

### ***Scientific Activity***

From 1990 to 1992 she performed clinical research studies at the Gastroenterology Division, University of Milano, mainly working on epidemiological projects.

From 1992 to 1995 research fellow at the Gastrointestinal Division - Brigham and Womens' Hospital, Harvard Medical School, Boston, MA, USA (Prof. J.L. Gollan) and at the Nutrition Department, Harvard School of Public Health, Boston, MA, USA (Prof. M. Wessling-Resnick), mainly focusing on iron transport in the liver. During this research period her main focus was the characterization of non-transferrin-bound iron uptake by hepatocytes.

From 1995 to 2001 she worked at the Dept of Biology and Genetics of the University of Milan analyzing iron metabolism and the mechanisms regulating iron uptake in vitro and in vivo. The data obtained during these years provided information regarding the regulatory mechanisms involved in iron uptake.

From 2002 Assistant Professor and from 2010 Associate Professor in Applied Biology at the Faculty of Medicine, University of Milano Bicocca. Main research interests are: a) identify genes and pathways involved in the development of celiac disease, with a focus on gene expression regulation (in particular by miRNAs); b) identify the role of iron metabolism genes and their regulatory mechanisms in determining iron overload, as well as their response to hypoxia.

The data obtained in the last years have been extremely important in particular to clarify the role of miRNAs in the regulatory loops present in the duodenal mucosa of celiac disease patients. The identified miRNAs have been able to regulate both the epithelium as well as immunological components, which are the main players of the pathophysiological mechanisms involved in celiac disease.

Recently she has focused on the interactions between food nanoparticles, allergens and the immune system. Nanotechnology is a relatively new area of science and the benefits offered by its industrial application raise the possibility of risks for the human health associated with nano- products. A number of engineered nanoparticles are ingested, consciously or unconsciously, and enter the gastrointestinal tract. For example, the application of nanotechnology in the food industry include the usage of engineered nanoparticles as food ingredients and additives in food packaging, that represent the predominant source of ingested nanoparticles. Starting from the evidence that the first line of defence against orally ingested NP, and their first target, is the intestine, she has started to focus on their potential toxicity on the intestine, with a special interest into the possible influence of ingested engineered NP on developing, or worsening, gluten intolerance, a disorder with a very high prevalence in caucasian population.

### ***Teaching activity***

She has been teaching the course of Biology and Genetics (Medical School, about 130 students/year), Cellular Biology (Dentistry, about 25 students/year) since 2002, for about 100 hours/year. In particular, the course at the Medical School provides the basic knowledge of cellular and molecular biology, as well as genetics, focusing on their possible future applications in the medical field. She has also been teaching a course in Human molecular genetics (42 hours) since 2010 to Undergraduate in Biotechnology (about 60 students/year). She has also taught a course in Pharmacogenomics (Degree in Biotechnology) from 2002 to 2010 to Master Course in Medical Biotechnology (about 50 students/year). She has taught at various masters and specialization classes, both in Italian and in English. The students' evaluation has always been positive for all the courses. She has supervised several (about 20) undergraduate and PhD thesis.

During the last couple of years, she has also been in charge of the development of a new International Medical School (basic science subjects) which involves another Italian University as well as the University of Surrey.