

GUGLIELMINA NADIA RANZANI

Short C.V.

Educational background - G.N. Ranzani graduated in Biology at the University of Pavia-Italy in 1974 (cum laude). She received a postgraduate degree ("Scuola di Specializzazione") in Biophysics from the University of Pavia in 1977 (cum laude).

Appointments - Research assistant (1976-1981), and researcher (1981-1987) at the Department of Genetics and Microbiology of the University of Pavia; Associate Professor of Human Genetics at the University of Camerino-Italy (1987-1990) and at the University of Pavia (1990-2001). From October 2001, she is Full Professor of Human Genetics at the Department of Biology and Biotechnology of the University of Pavia. Starting from the Academic year 1999-2000, Director for five years of the "Scuola di Specializzazione" of Applied Genetics, Faculty of Sciences - University of Pavia. From 2003 to 2009, Chairman of the Department of Genetics and Microbiology of the University of Pavia. From 2009 to 2015, Director of the PhD program of the University of Pavia (Scuola di Alta Formazione Dottorale). From 2019, Delegate for the Internationalisation in the Americas of the University of Pavia.

International fellowships - Graduate student fellow ("Anna Villa Rusconi Foundation" fellowship) at the Department of Human Genetics-University of Leiden (the Netherlands) (1976-1977); graduate student fellow (short-term EMBO fellowship) at the Department of Human Genetics-University of Leiden (1977); long-term EMBO fellow for two years (1981-1983) at the Department of Animal Biology-University of Geneva (Switzerland); "maître-assistant" (1983-1984) at the Department of Animal Biology-University of Geneva.

Research activity - After having studied genetic variability in human populations for about ten years (1976-1986), she focused her research activity on cancer genetics. One of the current research aims is the detection and functional characterization of genetic lesions predisposing to the development of gastrointestinal tumors in families with hereditary syndromes. These syndromes include HNPCC (hereditary non-polyposis colorectal cancer), FAP/MAP (familial adenomatous polyposis/MUTYH-associated polyposis) and HDGC (hereditary diffuse gastric cancer). In addition to high-penetrance mutations, low-penetrance variants are also investigated in order to ascertain their contribution to cancer risk in "sporadic" cases. Besides germline variants, somatic genetic lesions are currently analyzed in tumor tissues to study cancer progression and metastases and to define useful prognostic markers in clinical setting.

Very recently, two collaborative studies have been launched: one study is aimed at deciphering the genetic component associated with variability in pain sensitivity and pain treatment response in surgical patients; the other study is aimed at investigating the correlation among genetic variability of taste perception, food choice, and risk of gastrointestinal tumors.

Publications - 103 papers in international journals some of which with high IF, 1 invited book article, 1 invited textbook chapter and 4 reviews in Italian scientific journals (SCOPUS: 6737 citations, 32 H-index; Google Scholar: citations 8864, 36 H-index).

Numerous talks and lectures at national and international meetings; invited lecture on hereditary polyposis at the United European Gastroenterology Week in 2005 (UEGW-

Copenhagen).

Appointments related to research activity - Invited member (by National Cancer Institute-NIH) of an expert panel to establish consensus criteria of tumor genetic instability (Bethesda 1998).

From 2000 to 2004, President of the A.I.F.E.G. (Italian association for the study of familial and hereditary gastrointestinal tumors). From 2004 to 2006, Principal Investigator of an Italian research network on hereditary gastrointestinal tumors, granted by the Italian Ministry of Scientific Research (MIUR). Board member of the Italian Association of Genetics (AGI) during 2002-2003 and 2013-2014. From 2017 to 2019, President of the A.I.F.E.G. (Italian association for the study of familial and hereditary gastrointestinal tumors).

Associate Editor of *Frontiers in Oncology- Gastrointestinal cancers*.

Research grants - In the last 15 years: Fondi Ateneo Ricerca (University of Pavia); PRIN (Italian Ministry for University and Research); Banca del Monte di Lombardia Foundation; Cariplo Foundation (as participant-NOBEL project); Policlinico San Matteo-Pavia research grants (coll.); AIRC (Italian Association for Cancer Research-in a network); Erasmus Mundus Dunia Beam Project; "Contributo liberale" from CDI; AQST Expo-Progetti Territoriali Integrati; personnel exchange grants from CNR (INSERM-Unité 434, Paris-France) and from Ateneo Italo-Tedesco (GSF, Institute of Pathology, Munich-Germany).

As Supervisor (starting from September 2020), she has been awarded by a Marie Skłodowska-Curie EU fellowship.