

Curriculum Vitae of Ornella SEMINO

January 12, 2022

ACADEMIC POSITION

Full Professor of Genetics, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Via Ferrata 9, 27100 Pavia (Italy). Tel: (office) +39 0382-985543. Tel: (lab) +39 0382-985544.

PROFESSIONAL EXPERIENCE

Since 2022. Full Professor of Genetics, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Italy.

Since 2021. President of the Joint Committee of Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Italy; former member of the same commission **since 2013**.

Since 2019. Vicar President of the "Teaching Council" of Biological Sciences. Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Italy.

Since 2015. Professor of the School of Specialization in "Clinical Pathology and Clinical Biochemistry", University of Pavia, Italy.

Since 2011. Member of the PhD Program in Genetics, Molecular and Cellular Biology, University of Pavia, Italy.

Since 2010. Member of the "Joint Tutoring Committee" of Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Italy

Since 2007. Professor of the Ph.D. in Genetic and Biomolecular Sciences, now (since 2011) Ph.D. in Genetics, Molecular and Cell Biology. Dept. of Biology and Biotechnology "L. Spallanzani", Univ. of Pavia.

2005-2021. Associate Professor of Genetics, Department of Biology and Biotechnology "L. Spallanzani", University of Pavia, Italy.

2010-2014. Member of the Scientific Board Member of the Interdepartmental Centre for Gender Studies, University of Pavia, Italy.

2007-2010. Member of the PhD Program in Genetics and Biomolecular Sciences, University of Pavia, Italy.

2005-2007. professor of the PhD Program in Molecular Biopathology, University of Calabria, Cosenza, Italy.

2004-2005. professor of the School of Specialization in "Applied Genetics", University of Pavia, Italy.

1993-2004. Research Assistant, Department of Genetics and Microbiology, University of Pavia, Italy.

2001 (March-April). Visiting Researcher, Department of Genetics, Stanford University, Stanford, California, U.S.A.

1999 (July-October). Visiting Researcher, Department of Genetics, Stanford University, Stanford, California, U.S.A.

1995 (August). Visiting Researcher, Department of Genetics, University of Leicester, Leicester, UK.

1989-1993. Fellow of the School of Specialization in Applied Genetics, as ranking first in the entrance exam - Department of Genetics and Microbiology "A. Buzzati-Traverso", University of Pavia, Italy.

1987 (August). Visiting Researcher, Department of Genetics, Karlovy University, Prague, Czechoslovakia.

1986-1989. Fellow ("Buzzati-Traverso" and "G. e L. Shenker Foundation fellowships) - Department of Genetics and Microbiology "A. Buzzati-Traverso", University of Pavia, Italy.

1985-1986. Intern at the Department of Genetics and Microbiology, University of Pavia, Italy, for the acquisition of the National Professional Qualification as Biologist, and teacher at Middle and High Public Schools.

1982-1984. Undergraduate student at the Human Genetic Lab of the Department of Genetics and Microbiology, University of Pavia, Italy.

INTERNATIONAL EXPERIENCE

BIBLIOMETRIC INDICES (April 2021)

111 articles *in extenso* (107 on international ISI journals and 4 chapters/articles in books).

Orcid ID: 0000-0002-9675-9403

Web of Science (ISI) H-index = 48 (> 8.850 citations);

Scopus H-Index = 49 (> 9.300 citations);

Google Scholar H-Index = 60 (> 16.220 citations).

ADDITIONAL INFORMATION

- Member of the Italian Genetics Association (AGI).

- Member of the selection committees for an open position as tenure-eligible lecturer in Genetics at the Autonomous University of Barcelona (UAB) included within the Serra Hünter Programme (sponsored by the government and universities of Catalonia).

- Reviewer for the South Africa's National Research Foundation (NRF) and for the French National Research Agency (Agence Nationale de la Recherche-ANR).

- Referee for several international journals including: *American Journal of Human Biology*, *American Journal of Human Genetics*, *American Journal of Physical Anthropology*, *Animal Genetics*, *Annals of Human Biology*, *Annals of Human Genetics*, *BMC Evolutionary Biology*, *BMC Genomics*, *Croatian Medical Journal*, *Current Anthropology*, *Current Genetics*, *European Journal of Human Genetics*, *Heredity*, *Human Biology*, *Human Mutation*, *Human Reproduction*, *Journal of Anthropological Sciences*, *Journal of Human Genetics*, *Molecular Biology and Evolution*, *Mutation Research*, *Nature Scientific Reports*, *PLoS ONE*, *Science*.

- Invited speaker at different conferences including: "1845èmes Journées de la SAP" Aix en Provence, January 29th- 31th, 2020; International Congress dedicated to 50th Anniversary of the Research Centre for Medical Genetics and 50 years of Medical -

Genetics Counseling Service in Russia. Moscow, Russia, May 24-28, 2019. International Conference "Centenary of Human Population Genetics" Moscow, Russia, May 29-31, 2019 (Invited Speaker in the section: Genetic diversity in Indigenous American populations and Chair of the section: Genetic Diversity in West Eurasian populations).

- Speaker at conferences and dissemination/educational activities including: Autunno Pavese 2017; "Food, health and complementary medicine" Castle of Belgioioso (PV), Italy, April 30, 2015, "Waiting for Expo 2015: how to feed the planet in safety with quality and taste" Varese, Italy, April 21, 2015; University for the Third Age, Accademia di San Marco of Pordenone and Club of Science organized by the Library of San Donato Milanese (MI).

RESEARCH TOPICS

Her research interests include human evolution and evolutionary population genetics. Much of her work is focused on understanding origin, evolution and patterns of diffusion of human populations. To better investigate human dispersion models, she extended her research activity to the study of the genetic variability of some animal species that, after the domestication, clearly reflects, at least in part, the history of human movements.

Her research activity started with the analysis of mitochondrial DNA (mtDNA), and the Male Specific Region of Y-chromosome (MSY) variation and is now extended to the analysis of the entire (modern and ancient) genome. The mtDNA and MSY region, due to their uniparental transmission and absence of recombination, can provide a clear-cut pattern of population historical events from a female and a male perspective, respectively. On the other hand, only the analysis of the entire genome can provide information on the origin and admixture patterns of a population.

Her scientific activity is documented by a total of 107 papers *in extenso* peer-reviewed on international ISI journals (including 1 paper published in Cell, 4 on Science, 2 in Nature, 1 in Nature Genetics, 1 in Nature Communications 1 in Science Advance and 21 in American Journal of Human Genetics) and 4 chapters/papers in *extenso* published in books. Five papers have been selected as cover story articles for the printed version of the journals (two for Current Biology, one for Genome Research, one for BMC Evolutionary Biology and one for Molecular Biology and Evolution).

The results of some studies have been subject of comments and articles on various international and national newspapers included: Le Monde, International Herald Tribune, The New York Times, Telegraph, Turkish Daily News, The Irish Times, El Pajs, Time, Il Sole 24 Ore, Corriere Della Sera, La Repubblica, L'Unita', Il Tirreno, Panorama, La Provincia Pavese.

MAIN CURRENT RESEARCH LINES

- MtDNA and Male-specific Region of the Y chromosome as markers for the study of modern and ancient human populations;
- improvement of the phylogeny of Native American branches of haplogroups C and Q of the Y chromosome;
- reconstruction of the genetic history of human populations through the study of modern and ancient genomic variation.