Prof. Gianni Barcaccia, Ph.D.

Full Professor of Agricultural Genetics
University of Padua, School of Agricultural Science and Veterinary Medicine
Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE)
Principal Investigator of the Laboratory of Genetics and Genomics for Plant Breeding
Campus of Agripolis – Viale dell'Università 16, 35020 Legnaro (Padova), Italy
E-mail: gianni.barcaccia@unipd.it
Office: +39 049 827 2814
Web-site: https://www.giannibarcaccia.com/
ORCID: https://orcid.org/0000-0001-7478-5048

Education and training stages
1986 – 1991: M.Sc.
Faculty of Agriculture, University of Perugia, Italy (https://www.unipg.it/)
Agricultural Science (specialty: Plant Genetics and Breeding) – 01 March 1991

1992 – 1995: Ph.D.
Institute of Plant Genetics and Breeding, Faculty of Agriculture, University of Perugia, Italy
with Administrative affiliation at the University of Padova, Italy (https://www.unipd.it/)
Crop Science (curriculum: Genetics of plant reproductive systems) – 18 October 1995

1996 – 1998: Post-Doc
Institute of Plant Genetics and Breeding, Faculty of Agriculture, University of Perugia, Italy
(https://www.unipg.it/)
Research project: Molecular markers for populations genetics – 01 November 1996

Academic experiences
1998 – 2003: Researcher
Faculty of Agriculture, University of Padova, Italy (https://www.unipd.it/) – 18 November 1998
Teaching BSc and MSc courses: Agricultural Genetics, Applied Genomics and Biotechnologies
Research activities: Plant reproductive systems and population genetics, local germplasm analysis

2004 – 2016: Associate Professor
Faculty of Agriculture, University of Padova, Italy (https://www.unipd.it/) – 07 January 2004
Teaching BSc and MSc courses: Agricultural Genetics, Applied Genomics and Biotechnologies
Research activities: Plant reproductive systems and population genetics, genomics applied to plant breeding, molecular marker-assisted selection, genetic traceability of agrifood products

2017 – present: Full Professor
Department of Agronomy Food Natural resources Animals and Environment (DAFNAE), University of Padova, Italy (https://www.dafnae.unipd.it/) – 01 March 2017
Teaching BSc and MSc courses: Agricultural Genetics, Applied Genomics and Plant Breeding
Research activities: Plant reproductive systems and population genetics, genomics applied to plant breeding, molecular marker-assisted selection, genetic traceability of agrifood products

2018 – present: Adjunct Professor
University of Georgia (UGA), Athens, USA
Department of Crop and Soil Sciences (https://cropsoil.uga.edu/)
Teaching MSc courses: Plant Genetics and Breeding – Dual Degree in Sustainable Agriculture

2019 – present: Department Head
Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE)
School of Agricultural Science and Veterinary Medicine
University of Padova (https://www.dafnae.unipd.it/) – 01 October 2019
Director of Department for the academic years 2019 – 2023

Director of Department (re-elected for a second term) for the academic years 2023 – 2027

2022 – present: Spoke leader of Agritech
PNRR: CN2 National Center for Technology in Agriculture – AGRITECH (https://agritechcenter.it/)

Research grants and contracts*
2018 – 2023: R&D contracts – Several collaborative programs stipulated with Italian seed companies and food industries (overall budget, 600 K€, PI)
2018 – 2022: CASA project MUR – "Center for Agricultural and Environmental Sustainability", MUR Department of Excellence, DAFNAE – University of Padova (total budget 8,675,000 €, PI)
2019 – 2021: VALEBIO project – "Selection of leguminous varieties for sustainable agricultural systems", UNI-IMPRESA – University of Padova/Blumen Group SpA (total budget 100,000 €, PI)
2020 – 2022: FA&AF project – "Primary Production and Functional Food", POR-FESR – Regional Innovative Networks, ID 10288429/DGR N. 822/2020 (total budget 1,915,000 €, assigned budget 460,000 €, PI)
2022 – 2026: AGRITECH project – "Multifunctional and resilient agriculture and forestry systems for the mitigation of climate change risks", MUR – National Centre for New Technologies in Agriculture (total budget Hub 320,000,000 €, assigned budget Spoke 20,000,000 €, PI)
2023 – 2025: GREAT project – "Genetics and genomics of Reproductive systems in plants", PRIN-PNRR (DR N. 104/2022, ID 2022EZMYWP (total budget 252,000 €, PI)
2023 – 2027: VITAE project MUR – "Center for Viticulture and Enology", MUR Department of Excellence, DAFNAE – University of Padova (total budget 8,350,000 €, PI)
2025 – 2028: MAGIKARES project – "Kabocha MAGIC population for Resilient Agriculture", CSR Veneto, DGR N. 1597/2023 (total budget 380,000 €, PI)
*The best ones selected in the last 5 years as Principal Investigator

Patents
Discovery and analysis of nuclear male sterility in leaf chicory (Cichorium intybus L.), Inventor
Intl. Patent Application PCT/EP2011/058765 (https://encrypted.google.com/patents/EP2713705B1)
EU Patent WO2012163389-A1 and USA Patent US20140157448-A1

Management skills
Director of Department (currently administrates a total budget for research and development of an overall economic value of about 10,000,000 € per year)
Coordinator of several institutional and academic commissions including the Scientific Commission and Third Mission Boards (annually manages and allocates internally funds for research projects and grants of more than 500,000 €)
Supervision and mentoring of many PhD, Post-doc and Researcher carriers in the last 25 years

Job-related skills
2007 – present: Inventor and Holder of BreedOmics, Service Laboratory of Genomics for Plant Breeding, c/o DAFNAE, University of Padova (https://www.giannibarcaccia.com/services/)

Academic duties and positions
2012 – 2016: Vice-director of the School of Doctorate in Scop Science
2014 – 2015: Vice-director of Department for the academic years 2014 – 2015
2015 – 2019: Vice-director of Department for the academic years 2015 – 2019
(for six years he has been Coordinator of Scientific Commission as well as Third Mission and Technology Transfer Board of the Department)
2019 – 2023: Director of Department for the academic years 2019 – 2023
2020 – 2025: Regional Representative of the National Technical–Scientific Committee for Agri-Food Biodiversity
2022 – 2026: Spoke leader of the Agritech National Center – Project: Multifunctional and resilient agriculture and forestry systems for the mitigation of climate change risks (https://agritechcenter.it/)
2023 – 2027: Director of Department for a second term for the academic years 2023 – 2027 (https://www.dafnae.unipd.it/dipartimento/organi-collegiali)
2023 – 2027: Coordinator of the Council of Department Directors of the University of Padova for the academic years 2023 – 2027 (https://www.unipd.it/consulta-direttori-dipartimento)

Since 2011 he is also The Trademark Owner of BreedOmics® and the Principal Investigator of the Laboratory of Genomics for Breeding, an academic laboratory service of genomic analyses for plant breeding, variety development and food traceability (https://www.giannibarcaccia.com/services/)

Scientific society memberships
As far as scientific society membership is concerned, he is member of the Italian Society of Agricultural Genetics (SIGA), the Interuniversity Consortium for Biotechnologies (CIB) and the European Association of Plant Breeding (EUCARPIA)

Research activities
In the last 10 years he was involved in several research projects financed by regional and national institutions. In particular, research activity focused on the following themes: i) plant reproductive systems, mainly genetic control of fertilization barriers (e.g. male-sterility and self-incompatibility) and seed formation (i.e. apomixis) in crop and model species; ii) genome analysis by means of PCR-derived molecular markers and Genotyping-by-Sequencing aimed at the construction of genetic linkage maps, identification of Mendelian genes/QTLs and marker-assisted selection (MAS); iii) transcriptome analysis by means of mRNA profiling and NGS technologies, gene expression studies, and structural, bioinformatic and functional analysis of genes; iv) analysis of genetic variability: characterization of varieties and natural populations belonging to crop plant species; v) development of molecular diagnostic assays for the genetic traceability of plant varieties and food derivatives using Genotyping-by-Sequencing and cpDNA/mtDNA barcoding.

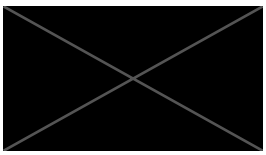
Main ERC descriptors
LS2 Genetics, Genomics, Bioinformatics and Systems Biology (LS2_1 Genomics, comparative genomics, functional genomics)
LS9 Applied Life Sciences and Non-Medical Biotechnology (LS9_5 Agriculture related to crop production, soil biology and cultivation, applied plant biology)

Scientific publications
Total no. of publications in peer-review journals: about 160 (Scopus author ID: 6701731637)
Total Impact Factor (IF): nearly 700 (Web of Science)
Total no. of citations: about 4,400 (Scopus) and 7,100 (Google Scholar)
H index: 37 (Scopus), 47 (Google Scholar) and 44 (Research Gate)
For additional information about Scientific publications see also
https://loop.frontiersin.org/people/274201/overview and
https://orcid.org/0000-0001-7478-5048

Top cited research and best bibliometric article
Barcaccia G. & Albertini E. (2013) Apomixis in plant reproduction: a novel perspective on an old dilemma. Plant Reproduction, 26(3): 159 – 179 (https://pmc.ncbi.nlm.nih.gov/articles/pmc3747320/)
Barcaccia et al. (2015) Uncovering the sources of DNA found on the Turin Shroud. Scientific Reports, vol. 5, art. n. 14484 (https://www.nature.com/articles/srep14484)

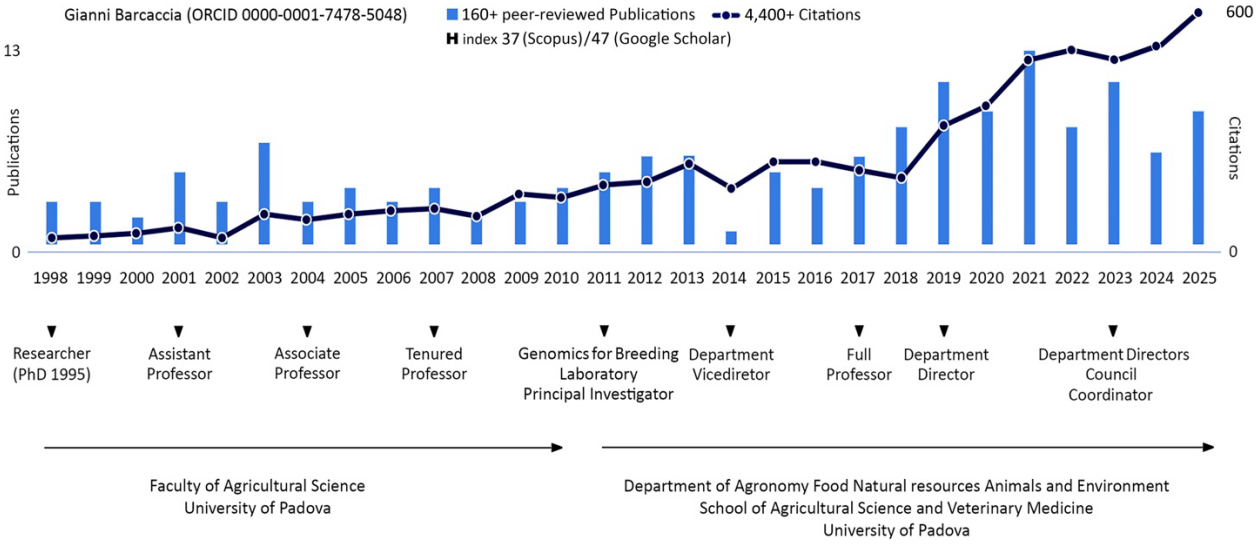
Academic books
First author of several Academic Books in Genetics, Plant Breeding, Genomics and Biotechnologies (Liguori Editore, Napoli, Italy) and Plants, Genes and Sustainable Agriculture (Piccin Editore, Padova)

Campus of Agripolis, Padua (Italy)
11 October 2025



Firma oscurata ai sensi delle linee guida del Garante della privacy

CV overview


Gianni Barcaccia (ORCID 0000-0001-7478-5048)
160+ peer-reviewed Publications
4,400+ Citations
H index 37 (Scopus)/47 (Google Scholar)
13
0
Publications
600
0
Citations
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025
Researcher (PhD 1995)
Assistant Professor
Associate Professor
Tenured Professor
Genomics for Breeding Laboratory Principal Investigator
Department Vicediretor
Full Professor
Department Director
Department Directors Council Coordinator
Faculty of Agricultural Science
University of Padova
Department of Agronomy Food Natural resources Animals and Environment
School of Agricultural Science and Veterinary Medicine
University of Padova