

## PERSONAL INFORMATION

Piero Angelo Morandini

## CURRENT POSITION

Since 1999 University Researcher in Plant Physiology and since 2022 Associate Professor in Plant Physiology at the University of Milan. From 2018 works at the Science and Environmental Policy Department.

2016-

Member of the National Committee for Biosecurity, Biotechnology and Life Sciences (CNBBSV) at the Presidency of the Council of Ministers

DEGREES

Master degree in Chemistry, Ph.D. in Immunology/Molecular Biology

## WORK EXPERIENCE

2002-2010

Member of the Scientific Council for Ag-Biotechnology of the Lombardy region. Supporting the Regional Government on technical- scientific matters concerning Ag-biotechnology

1994-1999

Scholarship at the Biology Dept. and lecturer on contract for Botany/ Plant Physiology at the Catholic University of Piacenza and at the Univ. of Verona.

▪ Experimental research, participation to scientific congresses, teaching at university level.

1990-1993

Scholarship at the Laboratory of Molecular Biology - MRC, Cambridge, UK.

▪ Experimental research in molecular and developmental biology in the group of dr. R. Kay

1988-1990

Scholarships at the Max Planck Institute for Biochemistry (Martinsried, Munich) and the Ludwig Maximilian University of Munich.

▪ Experimental research in molecular and developmental biology in the groups of dr. W. Nellen and H.K. MacWilliams

1987

Graduate student at the Department of Genetics, Biology and Chemistry, University of Turin.

▪ Research student in the lab of prof. G. Mangiarotti

## EDUCATION AND TRAINING

1992-1996

Ph.D. in Immunology/ Molecular Biology (University of Turin)

QEQ level: 8

1981-1986

Master degree in Chemistry (University of Turin), score: 110/110 cum Laude

QEQ level: 7

1976-1981

Scientific high school diploma, scientific lyceum, score: 60/60

QEQ level: 4

## PERSONAL SKILLS

Mother tongue

Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Evaluation by the employer language course					
German	B1	A2	B1	B1	A2
Self-evaluation and certificate "Deutsch als Fremdsprache"					
Spanish	-	A1	-	-	-
Self-evaluation					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
Common European Framework of Reference for Languages

### Communication skills

In 25 years, P.M. has held almost 60 university theoretical courses or lab courses or part thereof in several university on several subjects (Botany, Plant Physiology, System Biology, Plant Biotechnology, Experimental Biology, Economic Botany...). Part of the courses are held in English (**see annex, sect. H**). P.M. gave several tens of seminars and lectures in research centres in Italy and abroad (**see annex, sect. E**).

Very good mastering of Powerpoint for teaching purposes. Teaches regularly to prospective teachers within the courses offered by the University of Milan.

P.M. has been an invited speaker at different conferences, among which the Study Week "Transgenic Plants for Food Security in the Context of Development" organized by the Pontifical Academy of Sciences (15-19 May 2009) twice at the Annual congress of the Italian Society for Agricultural Genetics (Sept. 2005 e Sept. 2009) and to several Ph.D. summer schools.

Passionate science populariser, holds regularly talks and lectures in schools, cultural centres or science fairs, writes articles and participates to TV and radio shows, mainly on issues related to Ag-biotechnology and about tech innovation in agriculture. On the same subjects collaborates as a scholar to the preparation of scientific exhibits, the most important of which has been "Natural, artificial, cultivated. Man's age-old dialogue with nature" presented to the Rimini Meeting in 2013. The exhibit attracted around 15,000 visitors in one week.

<https://www.meetingrimini.org/en/eventi-totale/natural-artificial-cultivated-mans-age-old-dialogue-with-nature/> This exhibit has also been on display in more than 20 locations in Italy.

More details about these activities are available in the annex, sect. F and G.

### Organisational / managerial skills

Interaction with many colleagues in Italy and abroad for joint research projects, as evident from the number of co-authors in the publication list and grant application (see annex, sect. A, B and I). At present is the head of a small research group (2-4 people).

Grants obtained as Principal investigator (2012-2016)

Research contracts with Strube International, 2012-2015, total 21,000 eur

Various grants from the University of Milan and the Italian Ministry of Research: >10,000 eur (for other grant applications, see **annex, sect. I**)

Supervision of over 50 students (B.Sc., M.Sc. or Ph.D.) to achieve their degrees. P.M. is at present a member of the board of the Ph.D. School in Environmental Sciences at the University of Milan.

In June 2008, organized a Summer school for Ph.D. students (together with M. Farina, Polytechnic of Milan) "From genes to models and return - Systems biology: theory and application". In 2016 organized a course for the Ph.D. School Environmental Sciences entitled "The long journey: from early agriculture to genome editing" comprising 8 lectures from June to October.

Member of the organizing Committee of the International Biotechnology Symposium (IBS) 2010 (Rimini).

### Job-related skills

The research of P.M. concerned basic problems of biology and plant biotechnology. During the first years, the focus was on the development of transformation tools and the study of gene expression in the soil amoeba *Dictyostelium discoideum*. Since returning to Italy the focus shifted to the regulation of ATP dependent pumps of the plasma membrane of plant cells. In recent years, the main research subject has been the regulation of plant metabolism and the identification of gene function by mean of transcript correlation analysis. Collectively, the research produced around 60 publications (as author or co-author) on international journals (see annex, **sect. A**), several of which obtained a high number of citations. Other written contributions were three book chapters (**see annex, sect. B-D**), the main part of a high school textbook on Agricultural Biotechnology for agricultural technical schools (in Italian), more than 60 communications to national and international congresses and around 10 further contributions (**Annex, sect. F**).

As of Oct. 2025, the total number of citations is **2169** since 1989 (Scopus), with an **H-index of 27**.

ORCID: <http://orcid.org/0000-0002-7994-6426>

In April 2014 P.M. obtains the national scientific habilitation to associate professor for Plant Physiology and in October 2018 that one for Agricultural Chemistry and Genetics.

### Laboratory skills

Mastering of the main molecular biological techniques (cloning, sequencing, planning and selection of gene constructs, PCR, DNA/RNA/protein extraction from different tissues, reporter genes b(GUS, GAL, GFP...). Experience with several biochemical techniques (enzyme assays, histochemical staining, fluorescence and spectrophotometric measurements, protein purification by chromatography).

Growth and crossing of different plant genotypes, plant transformation, *in vitro* growth of plant explants and regeneration.

Good knowledge of metabolism at large and of metabolic control, especially in the plants field, of which is regarded as an expert at the international level. For this knowledge and more in general for the expertise on plant biotechnology and their regulation, has been a referee for several international journals (Nature Biotechnology, Development, Planta, Transgenic research, Maydica, Journal of NanoBiotechnology, Journal of Agricultural and Food Chemistry, Plant science, Biofuels, Food and Chemical Toxicology, plant and cell physiology, BMC Microbiology) and for granting agencies both national and international.

In 2011 participates as Guest Editor for a special issue of Enzyme Microbial Technology dedicated to the International Biotechnology Symposium 2010.

Member of the editorial Board of the Journal of NanoBiotechnology

<https://jnanobiotechnology.biomedcentral.com/about/editorial-board>

## Digital competence

SELF-EVALUATION				
Informazioni processing	Comunication	Content creation	Security	Problem solving
Average user	Proficient user	Proficient user	Basic user	Average user
Self-evaluation				

- Good mastering of Office (Word, Excel, Powerpoint), several browsers and mailing software
- Mastering of selected software for molecular biology and sequence comparison
- Good handling of digital images for scientific and didactic aims

## Other skills

Amatorial photographer, especially of the plant and agricultural world, for the creation of publications and presentations for educational purposes  
 Passionate horticulturist, with practical experience of several farming activities, and mountaineer

## Driving licence

B

## ADDITIONAL INFORMATION

### Publications

60 scientific publications on international journals with peer review (see annex)

### Talks and seminars

(for a partial list of outreach activities, see annex)

### Public outreach

see annex, sect.

### Memberships

Scientific societies: Società Italiana di Biologia Vegetale (SIBV - Italian Society of Plant Biology) since 1999. Società Italiana di Genetica Agraria (SIGA - Italian Society of Agricultural Genetics) since 2004.  
 Other associations: Euresis (<https://euresis.org/mission/>). Agri-Cultura (founding member).  
 Universitas-University <http://www.universitas-university.org> (founding member).

### References

Dr-Alisdair Fernie (MPI-Golm, Berlino, Germania), prof. David Fell (Oxford Brookes University, Oxford, Inghilterra), prof. Jan H. Hofmeyr (Stellenbosch University, Sud Africa)

### Courses

Course on laboratory safety

## ANNEX

SECTIONS: A) Peer reviewed publications in scientific journals, B) Book chapters and high school manuals, C) Commentaries and other non peer-reviewed publications, D) Posters and communication to congresses, E) Lectures and seminars, F) Public outreach or didactic publications, G) Public outreach activities, H) Teaching activities at university level, I) Grant applications

Milan, 14/10/2025