



**Sant'Anna**  
Scuola Universitaria Superiore Pisa

Pierdomenico Perata  
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See <https://scholar.google.it/citations?user=iUhcm8AAAAJ&hl=it> for publication list

See [www.plantlab.sssup.it](http://www.plantlab.sssup.it) for Prof. Perata Lab

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## **STUDIES AND QUALIFICATION**

- Degree in Agricultural Sciences, with full marks *cum laude* (1985, **University of Pisa**, Italy).
- Degree in Agricultural Sciences, with full marks *cum laude* (1985, **Scuola Superiore di Studi Universitari e di Perfezionamento S.Anna** (SSSUP), Pisa, Italy).
- Specialization in Plant Physiology, with full marks *cum laude* (1986-1987, **Scuola Superiore di Studi Universitari e di Perfezionamento S.Anna** (SSSUP), Pisa, Italy).
- Visiting Scientist (1987, **SCLAVO spa**, Development of immunological techniques in plant biology).
- PhD in Agricultural Biology (1987-1990, **University of Pisa**, Italy).
- Postdoctoral fellowship (1991-1992, Research Institute for Biochemical Regulation, School of Agriculture, **Nagoya University**, Nagoya, Japan).
- Assistant Professor (1991-1999, Dipartimento di Biologia delle Piante Agrarie, **University of Pisa**, Italy).
- JSPS Visiting Scientist (1996-1997, Nagoya University Bioscience Center, **Nagoya University**, Nagoya, Japan).
- Associate professor, Plant Physiology, School of Sciences, **University of Bari** (1999-2000).
- Full professor, Plant Physiology, School of Agriculture (2000-2004), **University of Modena e Reggio Emilia**).
- Deputy Dean, School of Agriculture (2002-2004), **University of Modena e Reggio Emilia**).
- Full professor, Plant Physiology, **Scuola Superiore Sant'Anna** of Pisa (2004-now).
- Dean, School of Experimental Sciences, **Scuola Superiore Sant'Anna** of Pisa (2010-2013).
- Deputy-Rector, **Scuola Superiore Sant'Anna** of Pisa (2011-2013).
- Rector, **Scuola Superiore Sant'Anna** of Pisa (2013-2019).
- Head, PlantLab, **Scuola Superiore Sant'Anna** of Pisa (2004-now).
- President, **Italian Society of Plant Biology** (2020-now).

## **SHORT BIO**

Pierdomenico Perata is professor of plant physiology at the Sant'Anna School of Advanced Studies, Pisa (Italy), where since 2012 he was Rector of the university (2012-2019). In 1994 he received the "FESPB Award", which is awarded by the Federation of European Societies of Plant Physiology (FESPB) Congress for excellence in scientific achievements. His publication record includes papers in the most important plant science journals, including *Nature*, *Science*, *Nature Communications*, *Nature Plants*, *PLOS Biology*, *The Plant Cell*, *The Plant Journal*, *Plant Physiology*, *Trends in Plant Science* and many others. His research interests include plant hypoxia physiology and sugar sensing and signaling.

## **HONORS**

- **1994 FESPP Award** (Federation of European Societies of Plant Physiology Award)
- Member of the **Board** of the Italian Society of Plant Physiology (2003-2005 ).
- Member of the **Accademia dei Georgofili** (since 2008).
- Member of the **Italian National Academy of Sciences** (since 2009).

## **RECENT PUBLICATIONS (LAST 5 YEARS)**

- [Botrytis cinerea induces local hypoxia in Arabidopsis leaves](#)  
MC Valeri, G Novi, DA Weits, A Mensuali, P Perata, E Loreti 2020  
**New Phytologist**
- [The calcineurin  \$\beta\$ -like interacting protein kinase CIPK25 regulates potassium homeostasis under low oxygen in Arabidopsis](#)  
A Tagliani, AN Tran, G Novi, R Di Mambro, M Pesenti, GA Sacchi, ... 2020  
**Journal of Experimental Botany**
- [Alternative splicing in the anthocyanin fruit gene encoding an R2R3 MYB transcription factor affects anthocyanin biosynthesis in tomato fruits](#)  
S Colanero, A Tagliani, P Perata, S Gonzali 2020  
**Plant Communications** 1 (1), 100006
- [Differential submergence tolerance between juvenile and adult Arabidopsis plants involves the ANAC017 transcription factor](#)  
LT Bui, V Shukla, FM Giorgi, A Trivellini, P Perata, F Licausi, B Giuntoli 2020  
**bioRxiv**
- [What's behind purple tomatoes? Insight into the mechanisms of anthocyanin synthesis in tomato fruits](#)  
S Colanero, P Perata, S Gonzali 2020  
**Plant Physiology**
- [Similar and Yet Different: Oxygen Sensing in Animals and Plants](#)  
F Licausi, B Giuntoli, P Perata 2020  
**Trends in plant science** 25 (1), 6-9
- [Ethylene Signaling Controls Fast Oxygen Sensing in Plants](#)  
P Perata 2020  
**Trends in plant science** 25 (1), 3-6
- [ARGONAUTE1 and ARGONAUTE4 regulate gene expression and hypoxia tolerance](#)  
E Loreti, F Betti, MJ Ladera-Carmona, F Fontana, G Novi, MC Valeri, ... 2020  
**Plant physiology** 182 (1), 287-300
- [Energy and sugar signaling during hypoxia](#) 2019

HY Cho, E Loreti, MC Shih, P Perata

**New Phytologist**

[A ratiometric sensor based on plant N-terminal degrons able to report oxygen dynamics in \*Saccharomyces cerevisiae\*](#)

ML Puerta, V Shukla, L Dalle Carbonare, DA Weits, P Perata, F Licausi, ...  
**Journal of molecular biology** 431 (15), 2810-2820 2019

[Conserved N-terminal cysteine dioxygenases transduce responses to hypoxia in animals and plants](#)

N Masson, TP Keeley, B Giuntoli, MD White, ML Puerta, P Perata, ...  
**Science** 365 (6448), 65-69 2019

[Zinc excess induces a hypoxia-like response by inhibiting cysteine oxidases in poplar roots](#)

L Dalle Carbonare, MD White, V Shukla, A Francini, P Perata, E Flashman, ...  
**Plant physiology** 180 (3), 1614-1628 2019

[Dissection of coleoptile elongation in \*japonica\* rice under submergence through integrated genome-wide association mapping and transcriptional analyses](#)

KN Nghi, A Tondelli, G Valè, A Tagliani, C Marè, P Perata, C Pucciariello  
**Plant, cell & environment** 42 (6), 1832-1846 2019

[Endogenous hypoxia in lateral root primordia controls root architecture by antagonizing auxin signaling in \*Arabidopsis\*](#)

V Shukla, L Lombardi, S Iacopino, A Pencik, O Novak, P Perata, B Giuntoli, ...  
**Molecular plant** 12 (4), 538-551 2019

[Conservation of ethanol fermentation and its regulation in land plants](#)

LT Bui, G Novi, L Lombardi, C Iannuzzi, J Rossi, A Santaniello, ...  
**Journal of experimental botany** 70 (6), 1815-1827 2019

[A synthetic oxygen sensor for plants based on animal hypoxia signaling](#)

S Iacopino, S Jurinovich, L Cupellini, L Piccinini, F Cardarelli, P Perata, ...  
**Plant physiology** 179 (3), 986-1000 2019

[Effect of Iodine treatments on \*Ocimum basilicum\* L.: Biofortification, phenolics production and essential oil composition](#)

C Kiferle, R Ascrizzi, M Martinelli, S Gonzali, L Mariotti, L Pistelli, ...  
**PloS one** 14 (12) 2019

[Iodine accumulation and tolerance in sweet basil \(\*Ocimum basilicum\* L.\) with green or purple leaves grown in floating system technique](#)

L Incrocci, G Carmassi, R Maggini, C Poli, D Saidov, C Tamburini, ...  
**Frontiers in Plant Science** 10, 1494 2019

[Exploring Legume-Rhizobia Symbiotic Models for Waterlogging Tolerance](#)

C Pucciariello, A Boscari, A Tagliani, R Brouquisse, P Perata  
**Frontiers in plant science** 10 2019

[Transcriptome profiling of short-term response to chilling stress in tolerant and sensitive \*Oryza sativa\* ssp. \*Japonica\* seedlings](#)

M Buti, M Pasquariello, D Ronga, JA Milc, N Pecchioni, C Pucciariello, ...  
**Functional & integrative genomics** 18 (6), 627-644 2018

[The atrovioacea gene encodes an R3-MYB protein repressing anthocyanin synthesis in tomato plants](#)

S Colanero, P Perata, S Gonzali  
**Frontiers in plant science** 9, 830 2018

[The rice \*SUBIA\* gene: Making adaptation to submergence and post-submergence possible](#)

P Perata  
**Plant, cell & environment** 41 (4), 717-720 2018

- [Group VII ethylene response factors in Arabidopsis: regulation and physiological roles](#)  
B Giuntoli, P Perata 2018  
**Plant physiology** 176 (2), 1143-1155
- [Gene regulation and survival under hypoxia requires starch availability and metabolism](#)  
E Loreti, MC Valeri, G Novi, P Perata 2018  
**Plant physiology** 176 (2), 1286-1298
- [Optimizing shelf life conditions for anthocyanin-rich tomatoes](#)  
T Petric, C Kiferle, P Perata, S Gonzali 2018  
**PloS one** 13 (10)
- [Age-dependent regulation of ERF-VII transcription factor activity in Arabidopsis thaliana](#)  
B Giuntoli, V Shukla, F Maggiorcelli, FM Giorgi, L Lombardi, P Perata, ... 2017  
**Plant, cell & environment** 40 (10), 2333-2346
- [Flooding and low oxygen responses in plants](#)  
O Pedersen, P Perata, LACJ Voesenek 2017  
**Functional Plant Biology** 44 (9), iii-vi
- [A calcineurin B-like protein participates in low oxygen signalling in rice](#)  
AN Tran, F Cardarelli, P Perata, C Pucciariello 2017  
**Functional Plant Biology** 44 (9), 917-928
- [Method for modulating plant processes](#)  
P Perata, E Loreti, E Paparelli, A Santaniello, N Giacomo, A Piaggese 2017  
**US Patent App.** 15/502,135
- [Ascophyllum nodosum seaweed extract alleviates drought stress in Arabidopsis by affecting photosynthetic performance and related gene expression](#)  
A Santaniello, A Scartazza, F Gresta, E Loreti, A Biasone, D Di Tommaso, ... 2017  
**Frontiers in plant science** 8, 1362
- [Functional balancing of the hypoxia regulators RAP2. 12 and HRA1 takes place in vivo in Arabidopsis thaliana plants](#)  
B Giuntoli, F Licausi, H van Veen, P Perata 2017  
**Frontiers in plant science** 8, 591
- [Phenotiki: an open software and hardware platform for affordable and easy image-based phenotyping of rosette-shaped plants](#)  
M Minervini, MV Giuffrida, P Perata, SA Tsafaris 2017  
**The Plant Journal** 90 (1), 204-216
- [Iodine biofortification of crops: agronomic biofortification, metabolic engineering and iodine bioavailability](#)  
S Gonzali, C Kiferle, P Perata 2017  
**Current opinion in biotechnology** 44, 16-26
- [New insights into reactive oxygen species and nitric oxide signalling under low oxygen in plants](#)  
C Pucciariello, P Perata 2017  
**Plant, cell & environment** 40 (4), 473-482
- [Community recommendations on terminology and procedures used in flooding and low oxygen stress research](#)  
R Sasidharan, J Bailey-Serres, M Ashikari, BJ Atwell, TD Colmer, ... 2017  
**New Phytologist** 214 (4), 1403-1407
- [Plant responses to flooding stress](#)  
E Loreti, H van Veen, P Perata 2016  
**Current Opinion in Plant Biology** 33, 64-71
- [New mechanistic links between sugar and hormone signalling networks](#)  
K Ljung, JL Nemhauser, P Perata 2015

**Current Opinion in Plant Biology** 25, 130-137

[Plant responses to flooding](#)

P Perata, R Voeselek, R Sasidharan, C Pucciariello

2015

**Frontiers E-books**

[Universal stress protein HRU1 mediates ROS homeostasis under anoxia](#)

S Gonzali, E Loreti, F Cardarelli, G Novi, S Parlanti, C Pucciariello, ...

2015

**Nature Plants** 1, 15151

[Tomato R2R3-MYB proteins SIANT1 and SIANT2: same protein activity, different roles](#)

C Kiferle, E Fantini, L Bassolino, G Povero, C Spelt, S Buti, G Giuliano, ...




2015

**PLoS One** 10 (8)

See Google Scholar page for a full list of publications:

<https://scholar.google.it/citations?user=iUhcmm8AAAAJ&hl=it>

**BIBLIOMETRIC INDEXES**

	<i>Times cited</i>	<i>h-index</i>
	10543	55
	7490	45
	7088	45

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