

## PERSONAL INFORMATION



Benedetto Araci

ENEA

Italian National Agency for New Technologies, Energy and Sustainable Economic Development  
Department for Sustainability (SSPT)- Biotechnologies and Agroindustry Division (BIOAG) -  
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Sex M | Date of birth 09/03/1967 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input checked="" type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

## WORK EXPERIENCE

2019 - present **Researcher**

ENEA, Casaccia Research Centre (Rome, Italy). <https://www.enea.it/en/>

Detection and characterization of fungal strains for agro-industrial purpose

*Molecular Biology; Microbiology; Biochemistry.*

1998 - 2019 **Scientific Director**

Soc. Agr. FLORAMIATA S.p.A./Soc. Agr. Floramiata Servizi S.r.l. (Piancastagnaio, Siena, Italy).

Development of new varieties and mass-production of ornamental plants

*Green Biotechnologies; Plant Tissue Culture; Breeding.*

1999 - 2011 **Co-founder and CEO**

AMBIOTECH S.r.l. [liquidated company] (Rome, Italy)

Scientific project management and business advisory

*Molecular Farming; GM plants service.*

**EDUCATION AND TRAINING**

<b>1995 - 1998</b>	<b>PhD in Botanical Science</b>	<b>EQF 8</b>
	<b>Department of Plant Biology, University of Rome "La Sapienza" (Italy)</b>	
	<i>Microbiology; Biochemistry; Plant-pathogen interaction</i>	
<b>1990 - 1994</b>	<b>University Degree in Biology</b>	<b>EQF 7</b>
	<b>University of Rome "La Sapienza" (Italy)</b>	
	<i>Molecular Biology; Plant Tissue Culture; Regulation of gene expression</i>	

**PERSONAL SKILLS**

Mother tongue	Italian
Other language	English (B1)
Job-related skills	Licenced as professional Biologist..
Digital skills	<ul style="list-style-type: none"> <li>▪ Certificate <i>ECDL</i> (European Computer Driving Licence) <i>IT-Security</i> – expert level</li> <li>▪ Certificate <i>Eipass</i> (European Informatics Passport)– Educational use of the LIM (Interactive Whiteboard).</li> </ul>

**ADDITIONAL INFORMATION**

- Publications**
- 1) U. Borello, B. Araci, C. Dalmastrì, D. Farini, D. Ponti, G. Giuliano (1993) «*Transcriptional regulation of nuclear genes controlling plastid differentiation in tomato*». Biotechnology & Biotechnological Equipment 7/1993/2: 51-54 (Bulgaria). DOI: 10.1080/13102818.1993.10818694
  - 2) B. Araci, G.E. Bartley, P.A. Scolnik, G. Giuliano (1994) «*Sequence of the phytoene desaturase locus of tomato*». Plant Physiology 106: 789 (U.S.A.). DOI: 10.1104/pp.106.2.789
  - 3) V. Corona, B. Araci, G. Kosturkova, G.E. Bartley, L. Pittó, L. Giorgetti, P.A. Scolnik, G. Giuliano (1996) «*Regulation of a carotenoid biosynthesis gene promoter during plant development*». The Plant Journal 9(4): 505-512 (GB). DOI: 10.1046/j.1365-313x.1996.09040505.x
  - 4) F. Cervone, G. De Lorenzo, B. Araci, D. Bellincampi, C. Caprari, A.J. Clark, A. Desiderio, A. Devoto, F. Leckie, B. Mattei, L. Nuss, G. Salvi (1996) «*The role of polygalacturonase, PGIP and pectin oligomers in fungal infection*». Pectins and Pectinases, Progress in Biotechnology vol. 14: 191-205, J. Visser and A.G.J. Voragen (eds). Kluver Academic Publishers (Elsevier Science B.V.) (Olanda). ISBN: 9780444823304
  - 5) F. Cervone, G. De Lorenzo, B. Araci, D. Bellincampi, C. Caprari, A. Devoto, F. Leckie, B. Mattei, L. Nuss, G. Salvi (1996) «*The PGIP (Polygalacturonase-Inhibiting Protein) family: extracellular proteins specialized for recognition*». Biology of Plant-Microbe Interactions: 93-98, G. Stacey, B. Mullin and P. Gresshoff (eds). Published by International Society for Molecular Plant-Microbe Interaction. St. Paul, Minnesota (U.S.A.). ISBN: 0-9654625-0-1
  - 6) A. Desiderio\*, B. Araci\*, F. Leckie\*, B. Mattei\*, G. Salvi, H. Tigelaar, J. S. C. Van Roekel, D. C. Baulcombe, L. S. Melchers, G. De Lorenzo, F. Cervone (\* = i primi quattro nomi sono coautori) (1997) «*Polygalacturonase-Inhibiting Proteins (PGIPs) with different specificities are expressed in Phaseolus vulgaris*». Molecular Plant-Microbe Interactions vol.10 no.7: 852-860 (U.S.A.). DOI: 10.1094/MPMI.1997.10.7.852
  - 7) F. Cervone, G. De Lorenzo, B. Araci, D. Bellincampi, I. Capone, C. Caprari, A. J. Clark, A. Devoto, F. Leckie, B. Mattei, L. Nuss, G. Salvi. (1998) «*Molecular Analysis of the Polygalacturonase-Inhibiting Protein (PGIP) Gene Family in Phaseolus Vulgaris L.*» In: Kohmoto K., Yoder O.C. (eds) Molecular Genetics of Host-Specific Toxins in Plant Disease. Developments in Plant Pathology, vol 13. Springer, Dordrecht. DOI: 10.1007/978-94-011-5218-1\_34
  - 8) F. Leckie, B. Mattei, C. Capodicasa, A. Hemmings, L. Nuss, B. Araci, G. De Lorenzo, F. Cervone (1999) «*The specificity of polygalacturonase-inhibiting protein (PGIP): a single amino acid substitution in the solvent-exposed  $\alpha$ -strands/ $\alpha$ -turn region of the leucine-rich repeats (LRRs) confers a new recognition capability*». The EMBO Journal vol.18 no.9: 2352-2363.

DOI: [10.1093/emboj/18.9.2352](https://doi.org/10.1093/emboj/18.9.2352)

- 9) Capodicasa C, Vairo D, Zabotina O, McCartney L, Caprari C, Mattei B, Manfredini C, Araci B, Benen J, Knox JP, De Lorenzo G, Cervone F. (2004). «*Targeted modification of homogalacturonan by transgenic expression of a fungal polygalacturonase alters plant growth*». Plant Physiol. Jul;135 (3):1294-304. DOI: [10.1104/pp.104.042788](https://doi.org/10.1104/pp.104.042788)
- 10) M. L. Savo Sardaro, M. Atallah, M. E. Picarella, B. Araci, M. A. Pagnotta (2012). «*Genetic diversity, population structure and phylogenetic inference among Italian Orchids of the Serapias genus assessed by AFLP molecular markers*». Plant Systematics and Evolution. November 2012, Vol. 298, Issue 9, pp 1701–1710. DOI: [10.1007/s00606-012-0671-z](https://doi.org/10.1007/s00606-012-0671-z)

total number of citations: 418  
H index: 6

**Projects** As principal investigator:

- “*Molecular technologies for the production of new ornamental plants*”. Founded by Italian Ministry of University and Research (Law 1089/68).
- “*Asymbiotic reproduction of Italian and tropical wild orchid species and protocol setup for genotyping*”, Founded by Italian Ministry of University and Research (Law 488/92).
- “*Italian wild orchids promotion as a new potential product for the floriculture industry*” founded by Italian Ministry of Agriculture and Forestry (Contratto di filiera DD n. 711 of 26/11/2007).
- “*Flower Colors engineering in ornamental plants*” founded by Italian Ministry of Agriculture and Forestry (Contratto di filiera DD n. 711 of 26/11/2007).

As participant group leader/work package leader:

- “*Recombinant DNA technology in agriculture field*” Contract by Agrital company from budget on National Program on Advanced Biotechnology strategies.
- “*Novaorchid: Innovative Biotechnologies for the development of new orchid phenotypes*”. Founded by Italian Ministry of Agriculture and Forestry (DM 186/2007).
- “*Quantitative evaluation of shrub and tree species used for environmental city pollution mitigation*” [MIA], Founded by Italian Ministry of Agriculture and Forestry (DM 186/2007).

**Registered orchids hybrids**  
*International Cultivar Registration Authority for Orchid Hybrids.*  
*Royal Horticultural Society*

- **Phalaenopsis Amiata Beauty** (*Phal. [Dtps.] Ever Spring Prince x Phal. amabilis*); International Register and Checklist of Orchid Hybrids (Sander's List April – June 2013 Registrations, pag. 48.
- **Serapias Amiatina** (*S. apulica x S. neglecta*);  
<https://apps.rhs.org.uk/horticulturaldatabase/orchidregister/orchiddetails.asp?ID=971835>