

## Brief Curriculum of

d.ssa Annarita Leva

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E-mail leva@ivalsa.cnr.it  
Nationality Italian  
Date of birth 22.09.1952  
Birth place Taranto  
**Area of interesting** Agrobiology, biotechnologies in crop production

### Professional appointments

-Doctor in Agricultural Science Università degli Studi di Firenze, 25.10 1977, 110/110 e lode

-In 1978 she was appointed assistant deputy in charge at the Department of Coltivazioni Arboree, University of Florence (for 7 months).

-In 1980 she obtained the certificate as qualified in scientific researcher from the Ministry of Agriculture and Forestry.

-In 1981, she obtained the qualification in assistant professor at the Istituto di Coltivazioni Arboree, University of Florence, which she held for 10 months until 31 July 1982.

-On 1 August 1982, obtained the certificate as Collaboratore tecnico professionale of CNR and appointed at the Institute on the Propagation of Wood Species.

-Since May 15, 1988 on the advice of the Scientific Council was qualified as Researcher.

In 1998 she obtained the suitability for the position at I Researcher Area Disc. "Agrobiology in crop production" .

Currently, she performs her function at Istituto per la Valorizzazione del Legno e delle Specie Arboree, CNR, Via Madonna del Piano, 50019 Sesto Fiorentino (FI) -code 228800-

Research area: biotechnology applied to perennial plants, - in vitro cultures for propagation and genetic improvement of fruit species –nursery technology.

### Fellowships

-In 1977 she won a CNR grant for undergraduates.

-In October 1978 she won a CNR grant confirmed until 1981.

-In October 1986 she won a CNR abroad grant (contract no. 203.06.36 of 7 October 1985) spent at the School of Biological Sciences, University of Bath, England, collaborating with Prof. Graham Henshaw on "Induction of morphogenesis in vitro from somatic tissues of Cassava. (October 1986- March 1987).

Responsibilities:

Person in charge of the laboratory "Biotechnology and in vitro cultures" at the Institute IVALSA from 2003 until 2013.

Person in charge of "in vitro culture laboratory" at the Institute on the Propagation of Wood Species (IPSL) from 1985 until 2002.

Person in charge of "in vitro culture of perennial plants" research at IPSL 1985-2002.

### Participation in projects

In 1988 she collaborated on the Subproject n. 4 "Nursery and Control of Plant Growth Regulators on rhizogenesis" in framework of the Project on "Pesticides and Plant Growth Regulators" CNR

From 1982 until 1989 she was people responsible of the unit research project 1.4.6: "Morphogenesis in vitro" in Subproject 1 area 1.4 "Biochemical and physiological factors and crop production", as part of the Project on "Increasing Productivity Agricultural Resources" (IPRA), CNR.

In 1988 she has been a partnership to research projects of the "Overseas Agricultural Institute" (Foreign Ministry), Florence.

From 1989 until 1991 she was in charge of project no. 1: Manipulation in vitro and genetic transformation of forest trees. National project "Advanced Biotechnologies, applied to the plants", Ministry of Agriculture and Forestry.

From January 1993 until 1996 she was people responsible of the Research Project No. 5 "Agronomic aspects, physiological and genetic adaptation and resistance to osmotic and osmosalino stress and production tolerant crops through in vitro culture "of the National Research Program" Genetic Resistance of agricultural plants to biotic and abiotic stress; coordinated by the Ministry of Agriculture and Forestry -MIRAAF.

From 2005 until 2009 she participated in the project Rural Development Program: Innovation and Research, Interregional project "Improvement and qualification of nursery olive (OLVIVA) UO "Innovations in the technique of multiplication of the olive".

### **Participation in International Cooperation Projects**

December 1990: appointed expert of the Ministry of Foreign Affairs in the framework of Development Cooperation: research and development of horticulture in Argentine, she collaborated for the organization and management of a scientific laboratory of in vitro culture and carried out training function for graduates at INTA, laboratories S. Pedro, Buenos Aires, Argentina

In 1983, from 10 January to 10 February and on November 1984 she conducted research at the Instituto de Recursos Naturales y Agrobiology of Seville as part of the scientific cooperation between the CNR and C.S.I.C. of Spain.

In June 1998 she conducted research on olive somatic embryogenesis in the Instituto de Recursos Naturales y Agrobiology of Seville as part of the scientific cooperation between the CNR and C.S.I.C. of Spain.

In 2004, she has been a visiting scientist invited from University of Iran, National Research Center for Genetic Engineering and Biotechnology (NRCGEB), Tehran. She carried out training function for Iranian researchers, she worked on in vitro culture of Iranian indigenous olive genotypes. She gave seminars and meetings with members of the Iranian government as Deputy Minister of Agriculture, with the Italian Ambassador to Iran Dr. Toscano and the Scientific Attaché of the Embassy to introduce and suggest future scientific cooperation Italy- Iran.

Teaching at the University level

From 2003 to 2005 she had a position of Co-tutor for a doctoral thesis, PhD in "Colture Arboree" of the University of Palermo entitled "In vitro culture of the olive tree: the relationship between oxidative stress and development of explants".

In 2010-2011 he had a position of tutor during the Sabatico Year of Prof Hossein Sadeghi, Associate Professor of Horticulture, at the College of Sari (Iran) on the research area "in vitro culture of the olive".

### **Publications and award**

Leva Annarita 2012: **Premio Antico Fattore dell'Accademia dei Georgofili** assegnato all'innovazione tecnologica riportata nella pubblicazione Leva A.R. 2011. Innovative and rapid protocol for ex vitro rooting of olive microcuttings. Cent. Eur. J. Biol. 6(3) 2011 352-358

-Leva AR, Sadeghi H., Petruccelli R. 2013. Carbohydrates Modulate the In Vitro Growth of Olive Microshoots. I. The Analysis of Shoot Growth and Branching Patterns. J Plant Growth Regul 32:53-60 DOI 10.1007/s00344-012-9275-7

-Leva A.R. Petruccelli R. 2012. Monitoring of cultivar identity in micropropagated olive plants (*Olea europaea* L. cv Maurino) using RAPD and ISSR markers. Biologia Plantarum 56 (2): 373-376

-Leva A.R., Petruccelli R, Rinaldi LMR. 2012

Somaclonal variation in tissue culture: a case of study with olive. In: Recent advances in plant in vitro culture. Eds: A. Leva and LMR. Rinaldi, ISBN 978-953-51-0787-3, InTech <http://dx.doi.org/10.5772/50367> (14.869 cumulative downloads)

-Leva A.R., Petruccelli R. 2011. Dwarf olive trees for ornamental use: a morphological evaluation. J. of Hort. Science & Biotechnology 86 (3) 217-220.

-Faraloni C., Cutino I., Petruccelli R., Leva A.R., Lazzeri S., Torzillo G. 2011. Chlorophyll fluorescence technique as a rapid tool for in vitro screening of olive cultivars (*Olea europaea* L.) tolerant to drought stress. Environmental and Experimental Botany 73 49-56.

-Leva A.R. 2011. Innovative and rapid protocol for ex vitro rooting of olive microcuttings. Cent. Eur. J. Biol. 6(3) 2011 352-358

-Leva A.R. 2009. Morphological evaluation of olive plants propagated in vitro through axillary buds and somatic embryogenesis methods. African Journal of Plant Science Vol. 3 (3), pp. 037-043.

-Leva A.R., Petruccelli R. 2007. Field Performance of olive somaclones derived from somatic embryos Acta Hort. 748, 181-189

-Leva AR., Petruccelli R., Polsinelli L. 2004. La propagazione in vitro dell'olivo: dal laboratorio alla produzione. OLIVAE n.101 pp.18-26.

-Leva A.R., Muleo R., Petruccelli R. 2003. Reproductive, vegetative and agronomic behaviour of the micropropagated olive cv Maurino. Acta Hort. 616, 309-312.