

Curriculum vitae

1. Personal data

Full name

Maria da Conceição Lopes Vieira Santos

Birth place and date

Gondomar (Porto) 17-07-1963

Nationality

Portuguese

Institutional address

Laboratory of Biotechnology and Cytomics

Department of Biology

University of Aveiro

Campus Universitário de Santiago

3810-193 Aveiro

PORTUGAL

Institution site : <http://www.bio.ua.pt>

Laboratory Biotechnology and Cytomics site:

<http://www.bio.ua.pt/LabCitomBiotech/Research.htm>

Contact data

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2. Academic degrees

1998- PhD in Biology, University Aveiro

1991- Aptidão Pedagógica e Capacidade Científica (academic post-graduation)

1986- Graduation in Biology, Faculdade de Ciências, Universidade OPorto

3. Previous and current scientific and/or professional activities

2000- (present) – Group Leader of the Laboratory Biotechnology and Cytomics: (more details on <http://www.bio.ua.pt/LabCitomBiotech/Research.htm>)

1998- (present) - Professor at the Department of Biology, University Aveiro

1991- Teaching assistant

1986- Stagiary teaching assistant, University Aveiro

4. Scientific experience

4.1. Area of scientific activity

Plant Cytomics, Biotechnology and Molecular Biology: lately she has dedicated to flow cytometry and micropropagation (somatic embryogenesis) of woody plants. She has also developed works on plant toxicity and phytopathology

4.2. Domain of specialization

Present research interests

- Cytomics
- Plant Biotechnology and in vitro culture
- Stress physiology
- Plant molecular biology

4.3. Supervising experience

Supervisor of one pos doc project, 10 PhD students and 11 master students.

4.4. Member of Juries

Has participated in 20 national and international juries of PhD and Master graduation

4.5. Participation in financed projects

- 1- *Title:* “Estudo ultraestrutural e bioquímico de videiras com síndrome da esca”
Period: 1999 - 2002 (concluded)
Coordinator: Maria da Conceição Santos
- 2- *Title:* “Plant biotechnology: a world easy to everyone”
Period: 1999 – 2000 (concluded)
Entity: MCT-Ciência Viva PIII/419
Coordinator: Maria da Conceição Santos
- 3- *Title:* BioRede – “Biologia em rede para escolas e comunidade”
Period: 1999 – 2000 (concluded)
Entity: MCT-Programa Aveiro Cidade Digital - PACD01/98-132)
- 4- *Title:* “Infection of *Quercus suber* by *Armillaria mellea*: consequences in cork quality”
Period: 1999 – 2002 (concluded)
- 5- *Title:* “Somatic embryogenesis in *Eucalyptus globulus*”
Period: 1999 – 2002 (concluded)
Entity: Stora Enso Celbi
Coordinator: Maria da Conceição Santos
- 6- *Title:* REI – Reforestation of Porto Santo Island using native plants propagated in vitro and adapted to water stress”
Period: 2000 – 2005
Entity: MCT – (PNAT/1999/QGR/15011/P)
Coordinator: Maria da Conceição Santos
- 7- *Title:* “Somatic embryogenesis and genetic characterisation of cork oak”
Period: 2000 – 2004 (concluded)
Entity: MCT-POCTI 36 225/99
Coordinator: Maria da Conceição Santos
- 8- *Title:* “Somatic embryogenesis in *Eucalyptus globulus* L., genetic control and evaluation of genetic stability of regenerated plants”
Period: 2002 - 2005
Entity: Stora Enso Celbi
Coordinator: Maria da Conceição Santos
- 9- *Title:* “How does PCD influence somatic embryogenesis in woody dicotyledonous plants?”
Period: 2005- 2008
Entity and Reference: FCT
Coordinator: Maria da Conceição Santos
- 10- *Title:* “Genetic and physiology of aluminium tolerance in Triticeae
ref: Pocti /AGR/ 58174/2004
Period: 2005- 2008
Entity: FCT
- 11- *Title:* “Evaluation of ecotoxicological aspects of Rio Leça”
Period: 2002- 2007
Entity: LIPOR / IDAD (protocol of collaboration)

4.6. Pos graduation Courses

From 1989 to 2004, she has attended 11 international and national advanced courses, mostly related with biotechnology, cell biology and molecular biology. In 2005 has organised a course of plant cytomics at Aveiro

4.7. Congresses and Scientific Meetings

Has participated in more than 30 scientific Congresses/Meetings mostly on plant biotechnology, cell biology and molecular biology

4.8. Publications, Reports and Communications

4.8.1. Papers in international scientific periodicals with referees (co-author of 28 papers in SCI journals).

List of the main publications since 2000

1-Conceição Vieira Santos, Susana Gomes, Gustavo Cadeira (2000) Comparative responses of *Helianthus annuus* plants and calli exposed to NaCl. II. Selection of stable tolerant calli cell lines and evaluation of osmotic adjustment and morphogenic capacity. J. Plant Physiol. 156: 68-74.

2-Conceição Vieira Santos, Alexandre Campos, Helena Azevedo (2001) In situ and in vitro senescence induced by KCl stress: nutritional imbalance, lipid peroxidation and antioxidant metabolism. J. Exp. Bot. 52 (335): 351-360.

3-Conceição Vieira Santos, Inês Falcão, Glória Pinto, Helena Oliveira, João Loureiro (2002) Response of sunflower cells under Na₂SO₄: I. Osmotic adjustment and nutrient responses and proline metabolism in sunflower cells under Na₂SO₄ stress. J. Plant Nutri. & Soil Sci. 165(3): 366-372.

4-Glória Pinto, Conceição Vieira Santos, Lucinda Neves, Clara Araújo (2002) Somatic embryogenesis and plant regeneration in *Eucalyptus globulus*. Plant Cell Reports 21: 214-219.

5-Conceição Santos, Gina Brito, Gloria Pinto, Henrique Fonseca (2002) In vitro plantlet regeneration of *Olea europaea* subsp. *madeiraensis*. Scientia Horticulturae 97:83-87.

6-Glória Pinto, Helena Valentim, Armando Costa, Conceição Vieira Santos (2002) Somatic embryogenesis in leaf callus from mature *Quercus suber* L. tree In Vitro Cell Dev. Bio. 38: 569-572.

7-Gina Brito, Glória Pinto, Armando Costa, Henrique Fonseca, Conceição Santos (2003) Response of *Olea europaea* subsp. *maderensis* shoots to osmotic stress induced by sorbitol. Scientia Horticulturae 97: 411-417.

8-Paula Conde, João Loureiro, Conceição Santos (2004) Somatic embryogenesis and plant regeneration from leaves of *Ulmus minor* Mill. Plant Cell Reports 22: 632-639.

9-Glória Pinto, João Loureiro, Tina Lopes, Conceição Santos (2004) Analysis of the genetic stability of *Eucalyptus globulus* Labill somatic embryos by flow cytometry. TAG 109 (3) : 580-

10-Artur Alves, Isabel Henriques, Sílvia Fragoeiro, Conceição Santos, Allan Phillips, António Correia (2004) Applicability of rep-PCR genomic fingerprinting for molecular discrimination of members of the genera *Phaeoacremonium* and *Phaeomoniella*. Plant Pathology: 53:629-634

11-Conceição Santos, Anabela Pereira, Susana Pereira, Jorge Teixeira (2004) Regulation of glutamine synthetase expression in sunflower cells exposed to salt stress. Scientia Horticulturae 103 (1):101-111

12-Conceição Vieira Santos (2004) Regulation of chlorophyll biosynthesis and degradation by salt stress in sunflower leaves. Scientia Horticulturae 103 (1):93-99

13-Conceição Santos, Silvia Fragoeiro, Alan Phillips (2005) Physiological response of grapevine cultivars and a rootstock to infection with *Phaeoacremonium* and *Phaeomoniella* isolates: an in vitro approach using plants and calluses. Scientia Horticulturae, 103 (2):187-198

14- João Loureiro, Gloria Pinto, Tina Lopes, Conceição Santos (2005) Genetic stability evaluation of *Quercus suber* micropropagated plants using flow cytometry. Planta, *in press (online)*

- 15- Susana Andrade, **Conceição Santos** (2005). Comparirion of carbohydrate metabolism in Na₂SO₄- and naturally-induced senescent sunflower leaves. *Agrochimica, in press*
- 16- Susana Loureiro, **Conceição Santos**, Goria Pinto, Armando Costa, Marta Monteiro, AMV Soares, Antonio Nogueira, (2005) Toxicity Assessment of Two Soils from Jales Mine (Portugal) Using Plants: Growth and Biochemical Parameters. *Archives of Environmental Contamination and Toxicology, in press.*
- 17- **Conceição Santos**, Sonia Silva, Alan Phillips (2005) Phenotypic characterisation of *Phaeoacremonium* and *Phaeomoniella* strains isolated from grapevines: enzyme production and virulence of extra-cellular filtrate on grapevine calluses. *Scientia Horticulturae, in press*
- 18- **Conceição Santos**, Sílvia Fragoeiro, Sonia Silva, Helena Oliveira, Alan Phillips (2005) Response of *Vitis vinifera* L. plants inoculated with *Phaeoacremonium angustius* and *Phaeomoniella chlamydospora* to thiabendazole, resveratrol and sodium arsenite. *Scientia Horticulturae, in press*
- 19-Helena Azevedo, Clara Gomes, **Conceição Santos** (2005) Cadmium effects in sunflower: nutrient imbalances in leaves and calluses. *J. Plant Nutrition, accepted*
- 20- Helena Azevedo, Clara Gomes, Conceição Santos (2005) Cadmium effects in sunflower: membrane degradation and oxidative stress enzyme activity in leaves and calluses. *J. Plant Nutrition, accepted*
- 21-Glória Pinto, Armando Costa, Sharmen MacRae, **Conceição Santos** (2005) Selection of *Agrobacterium rhizogenes* strains that improve in vitro rooting of *Eucalyptus globulus* without apparent increase of opine production. *Scientia Horticulturae, accepted*
- 22-Ana Capelo, Gina Brito, João Loureiro, **Conceição Santos** (2005) Micropropagation of *Juniperus phoenicea* L adult plants and analyses of ploidy stability and DNA content in micropropagation plants. *Biologia Plantarum, accepted*

4.8.2. Other Publications/Communications

Conceição Santos (1998) Estudo de alguns mecanismos de regulação osmótica e da expressão da glutamina sintetase em células de *Helianthus annuus* L. sujeitas a stress salino: selecção de células tolerantes a NaCl. PhD thesis, Universidade de Aveiro

Is co-author of:

- 8 papers in national journals with referees
- more than 20 technical reports to Companies (eg. Storaenso-Celbi, Lipor)
- 3 chapters of books.
- 12 proceedings of national and international conferences.
- 10 oral communications by invitation in scientific meetings
- 11 oral communications in in scientific meetings
- more than 60 Posters presented in scientific meetings.

4.9. Others

Has been involved in the organisation of 7 national and 2 international scientific meetings and 2 advanced courses

Is currently referee of several SCI journals

Is currently teaching disciplines at the graduation and Post graduation levels at the Department of Biology: Biotechnology, Cell Biology and Plant Physiology

Is member of several national and international scientific societies mostly of cell biology and microscopy (eg. SPME-BC, APBVAI, FEBS)