

CURRICULUM VITAE

CÉLIA M. MIGUEL

PERSONAL DATA

Name: **Célia Maria Romba Rodrigues Miguel**
Date of Birth: 21-03-1968
Nationality: Portuguese
Institutional address: Instituto de Biologia Experimental e Tecnológica (IBET) /
Instituto de Tecnologia Química e Biológica (ITQB) Laboratório
de Biotecnologia Florestal, Apartado 12
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ACADEMIC DEGREES

1999 - PhD in Biology (Plant Biotechnology)
Faculdade de Ciências, Universidade de Lisboa
1991 - *Licenciatura* in Applied Plant Biology
Faculdade de Ciências, Universidade de Lisboa

SCIENTIFIC AND/OR PROFESSIONAL ACTIVITIES

Since Oct 2006 - Researcher (“Investigador Auxiliar”) at Laboratório Associado de
Oeiras (LAO), IBET, Oeiras
Since Dec 2006 - Head of the Forest Biotech Lab, IBET
1999/Sept 2006 - Post-Doc Fellow (Grupo Pinus/Forest Biotech Lab), IBET/ITQB
2001/2004 - Lecturer at Instituto Piaget, Almada
1994/1998 - PhD student at Faculdade de Ciências, Universidade de Lisboa
1991/1993 - Research fellowship, Faculdade de Ciências, Universidade de Lisboa

OTHER ACADEMIC AND RESEARCH RELATED ACTIVITIES

2008-2010 - Coordinator of ITQB University Extension Course “Research Initiation”

Since Dec 2010 – Co-coordination of ITQB Post-Graduation course and University Extension Courses (Scientific Research Training (SRT) B, SRT C, SRT D)

Since 2009 – Member of the Organizing Committee of the ITQB PhD Program co-coordination of the Unit “Trends in Microbiology and Cell Biology”

Organization of Scientific Meetings

Member of the Organizing Committee of International Conferences:

- IUFRO Tree Biotechnology 2007, Ponta Delgada, Portugal
- Plant Genomics European Meeting (2009) Lisbon, Portugal
- Floresta 2050. Pensar o Futuro (2011), Oeiras, Portugal
- Presente e Futuro do sobreiro em Portugal (2011), Oeiras, Portugal

Editorial and Peer Review in scientific journals

Editorial Review Board member of the journal “Tree Physiology”

Plant Physiology; Journal of Experimental Botany; BMC Plant Biology; Planta; Plant Science; Tree Genetics and Genomics; Trees; Annals of Forest Science; Plant Cell Reports; Plant Molecular Biology Reporter; Plant Cell Tissue and Organ Culture

TEACHING IN GRADUATION, MASTER AND PHD COURSES

ITQB PhD Program, units “Trends in Microbial and Cell Biology” (**since 2009**) and “Frontiers in Biotechnology” (**since 2007**)

FCT- Universidade Nova de Lisboa, Master Course in Biotechnology, lecture and lab classes in the “Biotechnology of Plant and Animal Cells” curricular unit) (**since 2010**)

ISA (Instituto Superior de Agronomia), “Agronomic Engineering” and “Biology” Courses, invited lectures (**2008-2010**)

Assistant in the several editions of the EMBO Practical Course “Plant Development - Molecular and Cellular Basis”, unit of Plant Genetic Engineering: Methods to transform and improve plants (IBET) (**2001-2004**)

Instituto Superior de Estudos Interculturais e Transdisciplinares (ISEIT) of Instituto Piaget, lecturer of “Biotechnology” and “Biochemistry” in graduation Courses “Food Engineering” and “Chemistry Sciences and Environment” (**2001-2004**)

PARTICIPATION IN RESEARCH PROJECTS AND NETWORKS

NATIONAL PROJECTS (AS PRINCIPAL INVESTIGATOR)

2010/2013 - Gene regulatory networks underlying phellogen activity. FCT awarded PTDC/AGR-GPL/098369/2008.

2010/2013 - Transcriptomics of maritime pine embryogenesis. FCT awarded PTDC/AGR-GPL/102877/2008.

2009/2010 - Cork oak ESTs Consortium – fruit and embryo development. FCT SOBREIRO/0029/2009.

- 2005/2009** - Molecular and functional characterization of genes involved in maritime pine embryogenesis. FCT POCI/AGR/57902/2004.
- 2003/2006** - Monitoring retrotransposon activity during in vitro propagation of maritime pine. FCT POCTI/AGR/46283/2002.
- 1999/2001** - In vitro propagation of maritime pine (*Pinus pinaster*) for added value pine forest. FCT Praxis XXI, C/AGR/12076/98

NATIONAL PROJECTS (AS MEMBER OF RESEARCH TEAM)

- 2013/2015** – GENOSUBER the genome sequencing project of cork oak (*Quercus suber*). INALENTEJO-QREN (PI: Sónia Gonçalves, CEBAL)
- 2012/2015** - Population genomics of virulence adaptation in coffee leaf rust (*Hemileia vastatrix*). PTDC/AGR-GPL/119943/2010 (PI: Dora Lyon de Castro, IICT)
- 2010/2013** - Identification of genes responsible for drought tolerance in *Jatropha curcas*, an emerging biodiesel plant. PTDC/AGR-GPL/101435/2008 (PI: Margarida Oliveira, ITQB)
- 2010/2013** - Assessment of genetic and genomic resources of Cork Oak: the basis towards a prospective management. PTDC/AGR-GPL/104966/2008 (PI: Dora Lyon de Castro, FCUL).
- 2010/2012** – Conservação e Valorização da Flora Endémica Ameaçada em Portugal. Fundo EDP para a Biodiversidade (Coordinated in IBET/ITQB by Cláudia Santos and Ricardo Boavida Ferreira).
- 2009/2014** - Partner in the project “Resposta Biotecnológica ao Problema do Nemátodo da Madeira do Pinheiro” financed by Autoridade Florestal Nacional (coordinated by Escola Superior de Biotecnologia da Universidade Católica, other partners: INRB).
- 2005/2008** - Functional Characterization of Genes Related to Nitrogen Metabolism in Genetically Modified Maritime Pine. FCT POCI/AGR/57157/2004 (PI: Susana Tereso, ITQB).
- 2004/2006** - Retrotransposons to Assess Genetic Diversity in *Pinus pinea* L., PIDDAC. (PI: Rita Costa, Estação Florestal Nacional).
- 1998/2000** - PINUS PEDIP II, Projects for the technological development (Coordinator: Isolete Matos, Portucel)
- 1997/2000** - Sanitation and breeding of Portuguese fruit trees using a biotechnological approach. Praxis XXI, ref 3/3.2/HORT/2143/95 (PI: Margarida Oliveira, IBET)
- 1991/1993** - Breeding of *Actinidia deliciosa* cv. *deliciosa* through somaclonal variation and genetic transformation, ref PMCT/C/BIO/906/90 (PI: Salomé Pais, FCUL)

INTERNATIONAL PROJECTS

- 2012/2015** – ProCoGen - Promoting a functional and comparative understanding of the conifer genome- implementing applied aspects for more productive and adapted forests. Portuguese Partner in the Collaborative Project KBBE.2011.1.1-01

(Grant agreement no: 289841, Coordinators: Carmen Díaz-Sala, UAH and María-Teresa Cervera, INIA-CIFOR, Spain).

- 2010/2013** –Plant KBBE “Genomic tools in maritime pine for enhanced biomass production and sustainable forest management (SUSTAINPINE)”. P-KBBE/AGR-GPL/0001/2009, Coordinator of the Portuguese participation (Project Coordinator: Francisco Cánovas, UMA, Spain).
- 2005/2007** - Scientific Exchange Program for Pine Embryogenesis. FLAD (funded collaboration with Dr. John Cairney, IPST/GeorgiaTech, USA)
- 2002/2005** - Genomics of Loblolly Pine Embryogenesis, NSF (non-funded participation, Coordinator: John Cairney, IPST, USA)
- 2000/2003** - Propagation of European Pines via Somatic Embryogenesis (SEP)- V Framework Program: Quality of Life and Management of Living Resources (QLRT-1999-00679) (Project Coordinator: Sara von Arnold, SLU, Sweden)
- 1993/1997** - Genetic transformation of fruit tree species for the safer control of pests and diseases and for the improvement of fruit harvesting quality. Program AIR3-CT 93-0847 (Project Coordinator: David James, UK)

COLLABORATION / COOPERATION NETWORKS

- 2009/...** - Cork Oak ESTs Consortium (COEC). Portuguese Consortium for cork oak transcriptome sequencing.
- 2005/2008** - National delegate for the COST action E28 “GENOSILVA – European Forest Genomics Network”.
- 2000/2004** - Member of Working Group 2 “Quality enhancement of plant production through tissue culture” COST 843.

SUPERVISING EXPERIENCE

Post-Docs:

- 2010/...** - José de Vega-Bartol (Post-Doc fellowship in the project “Genomic tools in maritime PINE for enhanced biomass production and SUSTAINable forest management (SUSTAINPINE)” P-KBBE/AGR-GPL/0001/2009)
- 2010/...** - Inês Chaves with the subject “Metabolic and transcriptomic studies of developing *Quercus suber* tissues under adverse environmental conditions” (FCT Post-Doc fellowship, joint supervision of C. Pinto Ricardo, ITQB)
- 2009/...** - Liliana Marum with the subject “Functional Genomics of Cork Formation” (FCT Post-Doc fellowship)
- 2006/2007** – Sónia Gonçalves with the subject “Functional characterization of differentially expressed genes during embryogenesis of maritime pine” (FCT Post-Doc fellowship)

PHD STUDENTS:

- 2013/...** - Supervision of Andreia Matos (SFRH/BD/78927/2011) with the subject "Transcriptional Regulators Involved in Lateral Meristem Function"
- 2012/...** - Supervision of Andreia Rodrigues (PhD fellowship SFRH/BD/79779/2011, Novel non-coding RNAs as developmental regulators in conifers). Co-supervision of Dr. Andreas Bohn (Systems Biodynamics Lab, ITQB-UNL)
- 2008/...** - Supervision of Andreia Miguel with the subject "Molecular Regulation of Phellogen Activity – An Insight into Cork Formation"
- 2007/...** - Supervision of Ana Milhinhos with the subject "Genetic and Molecular Analysis of Plant Vascular Development"
- 2007/...** - Supervision of Marta Simões with the subject "Molecular regulation of early embryogenesis in maritime pine". Co-supervision of Prof. Sara von Arnold (Swedish Univ. of Agricultural Sciences, Sweden).
- 2004/2009** - Co-supervision of Liliana Marum with the subject "Evaluation of the stability of embryogenic cultures and of emblings of maritime pine (*Pinus pinaster* Ait.) using molecular markers" defended in June 2009, Universidade Nova de Lisboa. Supervisor: Prof. Dr. Margarida Oliveira (ITQB/Faculty of Sciences of Lisbon)
- 2001/2005** - Supervision of Sónia Gonçalves with the thesis "Embryo development in maritime pine – a differential gene expression approach" defended in December 2005, Universidade Nova de Lisboa. Co-supervision of Dr. John Cairney (Institute of Paper Science and Technology, EUA) and co-supervision of Prof. Margarida Oliveira (ITQB/ Faculty of Sciences of Lisbon).
- 2000/2005** - Co-supervision of Susana Tereso with the subject "In vitro clonal propagation systems and genetic transformation system of maritime pine (*Pinus pinaster*)" defended in April 2005, Universidade Nova de Lisboa. Supervisor: Prof. Dr. Margarida Oliveira (ITQB/Faculdade de Ciências de Lisboa) and co-supervision of Prof. Dr. Kurt Zoglauer (University of Berlin, Germany)

MASTER AND GRADUATE STUDENTS:

- 2010/...** - Andreia Matos (Research Fellowship in the project PTDC/AGR-GPL/098369/2008 - Gene Regulatory Networks Underlying Phellogen Activity)
- 2010/...** - Andreia Rodrigues (Research Fellowship in the project PTDC/AGR-GPL/102877/2008 -Transcriptomics of maritime pine embryogenesis)
- 2010/...** - Raissa Santos (Research Fellowship in the project P-KBBE/AGR-GPL/0001/2009 - Genomic tools in maritime pine for enhanced biomass production and sustainable forest management (SUSTAINPINE))
- 2009/...** - Ana Oliveira (Research Fellowship in the project "Resposta Biotecnológica ao Problema do Nemátodo da Madeira do Pinheiro")
- 2008/2009** - Ariela Alves working on transformation of conifer embryogenic cultures for silencing and over-expression of specific genes involved in embryo development

- 2007/2008** - Andreia Miguel (Research Fellowship in the project POCI/AGR/57902/2004 - Molecular and functional characterization of genes involved in maritime pine embryogenesis)
- 2005/2006** - Marta Simões (Research Fellowship in the project POCI/AGR/57902/2004 - Molecular and functional characterization of genes involved in maritime pine embryogenesis)
- 2003/2005** - Jorge Cordeiro (Research Fellowship in the project POCTI/AGR/46283/2002 - Monitoring retrotransposon activity during in vitro propagation of maritime pine)
- 2002/2004** - Catarina Estevão working on the maintenance of embryogenic cultures and cryopreservation (Research Fellowship in the project QLRT-1999-00679).
- 2001/2003** - Supervision of Liliana Marum with the Thesis: "Cryopreservation of embryogenic cultures of *Pinus pinaster*" (MSc in Plant Production, Institute of Agronomy of Lisbon) by Universidade Técnica de Lisboa. Co-supervision: Prof. Dr. Sara Amâncio (ISA).
- 2001/2003** - Sandra Pereira working on maturation and conversion of somatic embryos (Research Fellowship in the project QLRT-1999-00679).

MEMBER OF THE JURY IN PHD AND MASTER THESIS PUBLIC DISCUSSIONS

PH.D.

- Liliana Marum (**2009**) Evaluation of the stability of embryogenic cultures and of emblings of maritime pine (*Pinus pinaster* Ait.) using molecular markers. Ph.D. Thesis, Instituto de tecnologia Química e Biológica, Universidade Nova de Lisboa. (Co-supervisor)
- Sónia Gonçalves (**2005**) Embryo development in maritime pine – a differential gene expression approach. Ph.D. Thesis, Instituto de tecnologia Química e Biológica, Universidade Nova de Lisboa. (Supervisor)
- Susana Tereso (**2005**) *In vitro* clonal propagation systems and genetic transformation system of maritime pine (*Pinus pinaster*). Ph.D. Thesis, Instituto de tecnologia Química e Biológica, Universidade Nova de Lisboa. (Co-supervisor)

MASTER

- João Carlos Fernandes (**2009**) Characterization and expression of cytokinin signalling genes in sulfur deficient grapevine (*Vitis vinifera* L.). Master Thesis, Instituto Superior de Agronomia, Universidade Técnica de Lisboa. (Opponent)
- Sonia Dias (**2009**) Produção de eritropoietina em culturas de células de *Arabidopsis thaliana*. Master Thesis. Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa. (Opponent)
- Lara Currais (**2008**) Functional characterization of a gene (*GS1b*) related to nitrogen metabolism in genetically modified maritime pine (*Pinus pinaster*). Faculdade de Ciências e Tecnologia, Universidade de Coimbra. (Opponent)

Margarida Carvalho (2007) Identificação, caracterização e mapeamento físico de retroelementos em *Quercus suber* L. Master Thesis, Instituto Superior de Agronomia, Universidade Técnica de Lisboa. (Opponent)

Liliana Marum (2003) Cryopreservation of embryogenic cultures of *Pinus pinaster*. Master Thesis, Instituto Superior de Agronomia, Universidade Técnica de Lisboa. (Supervisor)

PUBLICATIONS

THESIS

Miguel C (1999) Adventitious regeneration and genetic transformation of almond (*Prunus dulcis* Mill.). PhD Thesis. Faculdade de Ciências, Universidade de Lisboa. 177 pp.

BOOK CHAPTERS

Oliveira MM, **Miguel CM**, Costa M (2008) Almond. In: “A Compendium of Transgenic Crop Plants”, vol.4 - Temperate Fruits & Nuts (Chittaranjan Kole and Timothy C. Hall, Eds.). Blackwell Publishing, Oxford, UK (in press).

Oliveira MM, **Miguel CM**, Raquel MH (1998) - Genetic transformation of woody fruit species: problems and perspectives. In: COST 822 “Physiology and control of plant propagation in vitro”, G. Reuther (ed.) pp: 106-114. European Commission, Brussels.

PAPERS IN INTERNATIONAL SCIENTIFIC PERIODICALS WITH REFEREES

[23] Marum L, Miguel A, Ricardo CP, **Miguel CM** (2012) Reference Gene Selection for Quantitative Real-time PCR Normalization in *Quercus suber*. PLoS ONE, DOI: 10.1371/journal.pone.0035113

[22] Costa PM, Milhinhos A, Simões M, Marum L, Oliveira AM, Costa MH, **Miguel CM** (2012) Determining DNA strand breakage from embryogenic cell cultures of a conifer species using the single-cell gel electrophoresis assay. Tree Genetics & Genomes 8:425–430. DOI: 10.1007/s11295-011-0434-y

[21] **Miguel C**, Marum L (2011) An epigenetic view of plant cells cultured in vitro: somaclonal variation and beyond. Journal of Experimental Botany, 62 (11): 3713-3725. DOI: 10.1093/jxb/err155.

[20] Costa PM, **Miguel C**, Caeiro S, Lobo J, Martins M, Ferreira AM, Caetano M, Vale C, Delvalls TA, Costa MH (2011) Transcriptomic analyses in a benthic fish exposed to contaminated estuarine sediments through laboratory and in situ bioassays. Ecotoxicology, DOI: 10.1007/s10646-011-0708-z.

[19] Marum L, Loureiro J, Rodriguez E, Santos C, Oliveira MM, **Miguel CM** (2009) Flow cytometric and morphological analysis of *Pinus pinaster* somatic embryogenesis. *Journal of Biotechnology* 143: 288-295.

[18] Santos, AM, Oliver MJ, Sánchez AM, Payton PR, Gomes JP, **Miguel CM**, Oliveira MM (2009) An integrated strategy to identify key genes in almond adventitious shoot regeneration. *Journal of Experimental Botany* 60(14): 4159-4173.

- [17] Marum L, Rocheta M, Maroco J, Oliveira MM, **Miguel CM** (2009) Analysis of genetic stability at SSR loci during somatic embryogenesis in maritime pine (*Pinus pinaster*). *Plant Cell Reports* 28: 673-682.
- [16] **Miguel CM**, Simões M, Oliveira MM, Rocheta M (2008) Envelope-like retrotransposons in the plant kingdom: evidence of their presence in gymnosperms (*Pinus pinaster*). *Journal of Molecular Evolution* 67:517–525.
- [15] Tereso S, **Miguel CM**, Mascarenhas M, Roque A, Trindade H, Maroco J, Oliveira MM. (2008) Improved in vitro rooting of almond (*Prunus dulcis* Mill.) cultivars 'Boa Casta' and 'Peneda'. *Biologia Plantarum* 52(3): 437-444.
- [14] Gonçalves S, Cairney J, Pérez Rodríguez M, Cánovas F, Oliveira M, **Miguel CM** (2007) PpRab1, a Rab GTPase from maritime pine is differentially expressed during embryogenesis. *Molecular Genetics and Genomics* 278: 273–282.
- [13] Rocheta M, Cordeiro J, Oliveira M, **Miguel CM** (2007) PpRT1 (*Pinus pinaster* retrotransposon 1): the first gypsy-like retrotransposon isolated in *Pinus pinaster*. *Planta* 225: 551-562.
- [12] Tereso S, **Miguel CM**, Zoglauer K, Milhinhos A, Oliveira MM (2007) Zygotic and somatic embryo morphogenesis in *Pinus pinaster*: histological and histochemical comparative study. *Tree Physiology* 27: 661-669.
- [11] Tereso S, **Miguel CM**, Maroco J, Oliveira MM (2006) Susceptibility of embryogenic and organogenic tissues of maritime pine (*Pinus pinaster*) to antibiotics used in *Agrobacterium*-mediated transformation. *Plant Cell Tissue and Organ Culture* 87:33–40.
- [10] Tereso S, **Miguel CM**, Zoglauer K, Valle-Piquera C, Oliveira MM (2006) Stable *Agrobacterium*-mediated transformation of embryogenic tissues from *Pinus pinaster* Portuguese genotypes. *Plant Growth Regulation* 50(1): 57-68.
- [9] Costa M, **Miguel CM**, Oliveira M (2006) An improved selection strategy and the use of acetosyringone in shoot induction medium increase almond transformation efficiency by 100-fold. *Plant Cell Tissue and Organ Culture* 85: 205-209.
- [8] Tereso S, Gonçalves S, Marum, Oliveira MM, Maroco J, **Miguel CM** (2006) Improved axillary and adventitious bud regeneration from Portuguese genotypes of *Pinus pinaster*. *Propagation of Ornamental Plants*, 6(1): 24-33.
- [7] Gonçalves S, Cairney J, Maroco J, Oliveira MM, **Miguel CM** (2005) Evaluation of control transcripts in real-time RT-PCR expression analysis during maritime pine embryogenesis. *Planta* 222: 556-563.
- [6] Marum L, Estêvão C, Oliveira MM, Amâncio S, Rodrigues L, **Miguel CM** (2004) Recovery of cryopreserved embryogenic cultures of maritime pine – effect of cryoprotectant and suspension density. *Cryoletters* 25: 363-374.
- [5] **Miguel CM**, Gonçalves S, Tereso S, Marum L, Maroco J, Oliveira MM (2004) Somatic embryogenesis from 20 open-pollinated families of Portuguese plus trees of maritime. *Plant, Cell, Tissue & Organ Culture* 76 (2): 121-130.
- [4] **Miguel CM**, Oliveira MM (1999) Transgenic almond (*Prunus dulcis* Mill.) plants obtained by *Agrobacterium*-mediated transformation of leaf explants. *Plant Cell Rep*, 18: 387-393.
- [3] **Miguel CM**, Druart P, Oliveira MM (1996) Shoot regeneration from adventitious buds induced juvenile and adult almond (*Prunus dulcis* Mill.) explants. *In Vitro Cell. Dev. Biol.-Plant*, 32: 148-153.
- [2] Oliveira MM, **Miguel CM**, Raquel MH (1996) - Transformation studies in woody fruit crops. *Plant Tiss. Cult. and Biotechnology*, 2 (2): 76-93.
- [1] **Miguel CM**, Pais MS (1993) Induction of somatic embryogenesis in *Cynara cardunculus* L. (Compositae). *Acta Bot. Neerl.*, 42(3): 341-347.

PAPERS IN NATIONAL PERIODICALS WITH REFEREES

Gonçalves S, Cairney J, Maroco J, Oliveira MM, **Miguel CM** (2005) Identification of Genes Differentially Expressed During Embryogenesis in Maritime Pine (*Pinus pinaster*). *Silva Lusitana* 13(2): 203-216.

PAPERS IN CONFERENCE PROCEEDINGS

[21] Miguel A, Marum L, Santos AM., Alabaça C, Santo T, Varela C, Leitão J, Pereira-Leal J, Oliveira MM, **Miguel C.** (2012) Transcriptomics of fruit and embryo development - Cork oak ESTs Consortium. In: "Present and Future of Cork Oak in Portugal" (2012). Oliveira MM, Matos JA, Saibo NJ, Miguel C, Gil L (Eds.) Soc. Portuguesa de Fisiologia Vegetal, Oeiras, Portugal.

[20] Santos, A.M., Neves, I.Q., Almeida, P., **Miguel, C.**, Oliveira, M.M., Pereira-Leal, J.B. (2012) Deriving gene expression patterns from 454 EST sequencing in cork oak. In: "Present and Future of Cork Oak in Portugal" (2012). Oliveira MM, Matos JA, Saibo NJ, Miguel C, Gil L (Eds.) Soc. Portuguesa de Fisiologia Vegetal, Oeiras, Portugal

[19] Paulo OS, Costa JS , Pina-Martins F, Modesto¹, Simões F, Matos J, Almeida H, **Miguel C**, Veloso M , Oliveira MM , Ricardo C, Batista D. (2012)Cork Oak genetic differentiation and diversity. In: "Present and Future of Cork Oak in Portugal" (2012). Oliveira MM, Matos JA, Saibo NJ, Miguel C, Gil L (Eds.) Soc. Portuguesa de Fisiologia Vegetal, Oeiras, Portugal.

[18] Miguel A, Ricardo CP, Jones B, **Miguel C.** (2012) Characterization of a GRAS family transcription factor in cork oak. In: "Present and Future of Cork Oak in Portugal" (2012). Oliveira MM, Matos JA, Saibo NJ, Miguel C, Gil L (Eds.) Soc. Portuguesa de Fisiologia Vegetal, Oeiras, Portugal.

[17] Marum L, Ricardo CP, **Miguel C.** (2012) Molecular approaches to suberin biosynthesis in cork oak. In: "Present and Future of Cork Oak in Portugal" (2012). Oliveira MM, Matos JA, Saibo NJ, Miguel C, Gil L (Eds.) Soc. Portuguesa de Fisiologia Vegetal, Oeiras, Portugal.

[16] Simões M, Rodrigues A, Vega-Bartol J, Santos R, **Miguel C** (2011) Molecular characterization of pine embryogenesis: pursuing the role of a putative non-specific lipid-transfer protein. BMC Proceedings 2011, 5(Suppl 7):P71

[15] Vega-Bartol J, Santos R, Simões M, **Miguel C** (2011) Evaluation of reference genes for quantitative PCR analysis during somatic embryogenesis in conifers. BMC Proceedings 2011, 5(Suppl 7):O44

[14] Marum L, Miguel A, Ricardo CP, **Miguel C** (2011) Identification of GPAT acyltransferases in cork oak. BMC Proceedings 2011, 5(Suppl 7):P69

[13] Miguel A, Ricardo CP, Jones B, **Miguel C** (2011) Identification of a putative molecular regulator of cork cambium. BMC Proceedings 2011, 5(Suppl 7):P70

[12] Milhinhos A, Matos A, Vera-Sirera F, Blazquez M, **Miguel C** (2011) In search for the role of thermospermine synthase gene in poplar vascular development. BMC Proceedings 2011, 5(Suppl 7):P72

- [11] Costa J, **Miguel C**, Almeida H, Oliveira MM, Matoa JA, Simões F, Veloso M, Ricardo CP, Paulo OS, Batista D (2011) Genetic divergence in Cork Oak based on cpDNA sequence data. *BMC Proceedings* 2011, 5(Suppl 7):P13
- [10] Correia SI, **Miguel C**, Veríssimo P, Vinhas R, Lopes ML, Oliveira M, Canhoto JM (2010) Proteomic and Genetic Transformation Studies of Somatic Embryogenesis in the Solanaceous Tree *Cyphomandra betacea*. In: Park, Y.S., Bonga, J.M, Park, S.Y., and Moon, H.K. (eds.). *Proceedings of the IUFRO Working Party 2.09.02: "Somatic Embryogenesis of Trees" conference on "Advances in Somatic Embryogenesis of Trees and Its Application for the Future Forests and Plantations"*, August 19-21, 2010, Suwon, Republic of Korea.
- [9] Costa M, **Miguel CM**, Oliveira MM (2007) Improved conditions for *Agrobacterium*-mediated transformation of almond. *Acta Horticulturae* , 738: 575-581.
- [8] **Miguel CM**, Rocheta M, Cordeiro J, Oliveira MM (2004) Isolation of retrotransposon-like sequences from *Pinus pinaster*. *Acta Physiologiae Plantarum* 26: 66.
- [7] Tereso S, **Miguel CM**, Zoglauer K, Milhinhos A, Oliveira MM (2004) Searching for biochemical markers of somatic embryo maturity in *Pinus pinaster*. *Acta Physiologiae Plantarum* 26: 247.
- [6] Gonçalves S, Cairney J, Oliveira MM, **Miguel CM** (2004) Differential gene expression analysis during embryogenesis in maritime pine. *Acta Physiologiae Plantarum* 26: 296.
- [5] Tereso S, Zoglauer K, **Miguel CM**, Oliveira MM (2003) Establishing a genetic transformation system in *Pinus pinaster*. In: Espinel S, Barredo Y, Ritter E (Eds). *Sustainable Forestry, Wood Products & Biotechnology*. DFA-AFA Press, Vitoria-Gastiez, Spain, pp 195-204.
- [4] **Miguel CM**, Rocheta M, Tereso S, Marum L, Gonçalves S, Cordeiro J, Pinto Ricardo CP, Oliveira MM (2001) A Biotecnologia no Melhoramento do Pinheiro Bravo. 4º Congresso Florestal Nacional, Proceedings, Évora, Portugal, 28-30 Nov (5 pages).
- [3] Raquel MH, **Miguel CM**, Nolasco G, Oliveira MM (2000) Construction and testing of a transformation vector aiming at introducing PDV resistance in almond. *Acta Horticulturae* 521: 73-81.
- [2] **Miguel CM**, Raquel MH, Sánchez AM, Martins M, Nolasco G, Ferreira EL, Oliveira MM (1997) *In vitro* culture and improvement of Portuguese almond varieties. *Acta Horticulturae* 470: 562-569.
- [1] **Miguel CM**, Oliveira MM (1996) Genetic transformation of almond: search of competence for transformation and regeneration. *In Vitro Cell Dev Biol*, 32: 102--A.

DIVULGATION PAPERS

- Oliveira MM, **Miguel CM** (2010) Uma perspectiva científica das potencialidades e ameaças que pesam sobre a floresta portuguesa. *Portugal Global*, Feb-Mar 2010: 12-13.

COMMUNICATIONS

ORAL COMMUNICATIONS BY INVITATION

Miguel CM (2012) An integrated approach to the study of embryogenesis in maritime pine. Second International Conference of the IUFRO Working Party 2.09.02: Somatic Embryogenesis and Other Vegetative Propagation Technologies." Brno, Czech Republic (June 25-28)

Miguel CM (2011) Biotech tools in maritime pine: from somatic embryogenesis to functional genomics. XIX Reunión de la Sociedad Española de Fisiología Vegetal (SEFV) y XII Congreso Hispano Luso de Fisiología Vegetal. Universitat Jaume I, Castellón, Spain (21-24 June)

Miguel CM (2010) "A Engenharia Genética e a Biotecnologia Florestal" in Jornadas de Engenharia Química e Biológica 2010, Instituto Superior Técnico, Lisboa (12-16 April)

Miguel CM (2006) Molecular approaches to understand regulation of embryo development in maritime pine (*Pinus pinaster*). Population Genetics and Genomics of Forest Trees: from gene function to evolutionary dynamics and conservation (IUFRO/COST Joint Meeting), Alcalá de Henares, Spain, 1-6 October

Miguel CM (2003) "Clonagem e Engenharia Genética do Pinheiro Bravo: como e para quê" – In the 1st centenary of "Sociedade Portuguesa de Ciências Agrárias", Estação Agronómica Nacional, Oeiras (14 Nov)

OTHER ORAL COMMUNICATIONS (since 2004)

Chaves I, Lin Y-C, van de Peer Y, **Miguel C** (2012) Identification of novel and conserved miRNAs in *Quercus suber* as potential regulatory elements during cork formation. Oral by I.C. at IUFRO Conference Genetics of Fagaceae & Nothofagaceae, 9-12 Oct 2012, Talence, France

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