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Current position: Researcher at Forest Center of IICT;

Invited researcher at Plant Cell Biotechnology Laboratory (IBET);

Date of Birth: 15/06/1968

Education:

Ph. D. (2006) in Biology by Universidade Nova de Lisboa (New University of Lisbon, Portugal) and Cell and Molecular Biology at University of Bordeaux I (France) : Phenotypic and molecular plasticity of wood forming tissues in Maritime pine (*Pinus pinaster* Ait.).

Summary

7 papers in international journals, 1 books chapters, Participation in several funded research projects (at national and international level), in 3 of them as PI.

Research areas: Molecular regulation of wood formation in conifers and Eucalytus, forest tree Genomics Our main research interest is focused on molecular regulation of wood formation and of wood proprieties. Our current objectives are (i) to improve the basic knowledge of xylem differentiation and (ii) to get a better understanding of genetic control of wood formation and quality in forest trees; iii) to contribute to providing new means to manipulate fundamental processes of plant growth and development that may help to assist plant breeding programs. Currently JP is coordinating a Portuguese funded project (GENEGLOBwq) that aims understanding the genomic structure underlying a QTL for pulp yield in *E.*

globulus

(involving RAIZ, IBET, IICT-FLOR, UTL-IST and INESC-ID). In the frame of this project and EUCABAC group (CNRS, INRA-CNRGV, IBET, IICT) we have identify Eucalypts BAC clones for genes of interest, by screening high density filters and 3D BAC pools. Some of these clones were sequenced using newSeq technology (454FLX). With new FCT funded MICROEGO we are interest on identification of and characterisation of

E. globulus

miRNAs involved in the regulation of mechanisms of wood formation and their target genes, using as a model the tension wood forming tissues. JAPP are also a member of Coordination Board of the Portuguese Cork Oak EST Consortium funded by FCT, and are coordinating the project SOBREIRO/0015/2009 that aims for analysis of transcript accumulation on secondary tissues (developing xylem, phloem and developing phloem in cork oak (*Quercus suber*)).

List of selected publications

- Le Provost G., **PAIVA J.**, Pot D, Brach J., Plomion C. (2003). Seasonal variation in transcript accumulation in wood forming tissues of maritime pine (*Pinus pinaster* Ait.) with emphasis on a cell wall Glycine Rich Protein. *Planta* 217: 820-830
- Gion J-M, Lalanne C, Le Provost G, Ferry-Dumazet H, **PAIVA J**, Frigerio JM, Chaumeil P, Barré A, de Daruvar A, Brach J, Claverol S, Bonneau M, Plomion C (2004) The proteome of maritime pine wood forming tissue. *Proteomics* 5: 3731-3751
- Le Provost G, Herrera R, **PAIVA JAP**, Chaumeil P, Salin F, Plomion C (2007) A

micromethod for high throughput RNA extraction in forest trees. Biological Research 40: 291-297, 2007

PAIVA JAP, Garcés M, Alves A, Garnier-Géré P, Rodrigues JC, Lalanne C, Porcon S, Le Provost G, Silva-Perez D, Brach J, Frigerio J-m, Claverol S, Barré A, Fevereiro P, Plomion P. (2008)

- Molecular and phenotypic profiling from the base to the crown in maritime pine wood-forming tissue, New Phytologist 178(2): 283-30.

- **PAIVA JAP**, Garnier-Géré PH, Rodrigues JC, Alves A, Santos S, Graça J, Le Provost G, Chaumeil P, da Silva-Perez D, Bosc A, Fevereiro P, Plomion (2008) Phenotypic and molecular plasticity of maritime pine (*Pinus pinaster* Ait.) wood forming tissues along a growing season. New Phytologist 179: 1180-1194.

- **PAIVA JAP**, Prat E, Vautrin S, Santos MD, San-Clemente H, Brommonschenkel S, Fonseca4 PGS, Grattapaglia D, Song X, Ammiraju JSS, Kudrna D, Wing RA., Freitas AT, Bergès H, Grima-Pettenati J (2010) Advancing Eucalyptus genomics: identification and sequencing of lignin biosynthesis genes from deep-coverage BAC libraries. BMC Genomics (submitted).