P3 (CIRAD):

Jean-Marc GION, Dr Geneticist

UPR 39 "genetic diversity and breeding of forest tree species" CIRAD UPR39 / UMR BIOGECO 1202 INRA, Equipe de Génétique 69 route d'Arcachon F-33612 CESTAS Cedex FRANCE.

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Academic qualification

PhD thesis 2001 “Plant biology”, Rennes I University

APPOINTMENT:

Researcher, *Eucalyptus* breeding, *Eucalyptus* genomics

CIRAD team members

Jean Marc Gion, Molecular geneticist and applications of genomics in forest tree breeding,

Philippe Vigneron, Quantitative genetics and applications of genomics in forest tree breeding, PhD thesis « Genetic and plant breeding » 1984, Orsay University, Paris XI.

Gilles Chaix, geneticist, wood sciences, PhD 2002 Integrative Biology, diversity and plant improvement. ENSA-Montpellier

E Mandrou, Post doctorat position in *Eucalyptus* genomics (for 2 years from Sept 2010)

TEAM Research interest focusing on the project

Environmentally friendly development of wood based industry, with special focuses on pulp and charcoal (for steel making) constitutes the general objective of the group. The latest biotechnology tools and the development of new rapid methods for wood characterisation have opened new prospects for understanding the complex relations between genes expression and ecologically and economically important traits in forest species. CIRAD, involved both in upstream research and downstream industrial development of Eucalyptus plantations, is developing modern and short cut breeding strategies for a sustainable wood production, using multi disciplinary approach assembling genomics, molecular genetic, ecophysiology and wood sciences.

FIVE MOST RELEVANT PUBLICATIONS FOR THE PROJECT:

Foucart C., Jauneau A., **Gion J-M**, Amelot N., Martinez Y., Panegos P., **Grima-Pettenati J.**, Sivadon P.. (2009) EgROP1, a Eucalyptus Rac-like small GTPase involved in cell differentiation during secondary xylem formation. New Phytol. 183(4):1014-1029.

Hein Gherardi PR, Lima JL, **Chaix G**, 2009. Independent validation in calibrations based on near infrared spectroscopy to predict the basic density in Eucalyptus urophylla wood. Journal of Near Infrared spectroscopy 17(3).

Gion J.M., Rech P., **Grima Pettenati J**., Verhaegen D., Plomion C., 2000. Mapping candidate genes in *Eucalyptus* with emphasis on lignification genes. *Molecular Breeding*, vol. 6, p. 441-449.

Gion J-M, Carouché A, Dewaere S, Boudet C, Bedon F, Pichavant F, Charpentier JP, Baillères H, Rozenberg P, Carocha V, ougniabi N, Verhaegen D., **Grima Pettenati J**, **Vignero n P** , Plomion C (2010) Identification of QTLs for wood quality related traits in Eucalyptus and their colocalization with candidate genes. BMC Genomics, (submitted 2010)

Myburg A, B.M. Potts, C.M.P. Marques, M. Kirst, **J-M. Gion**, D. Grattapaglia, J. **Grima-Pettena ti** (**2007**) Genome mapping and molecular breeding in *Eucalyptus* : Molecular domestication of a major fiber crop. In: Genome mapping and molecular breeding, Chittaranjan Kole (eds). Volume 7 Forest Trees Springer, Heidelberg.