S3-P17

DIVERSITY OF BRADYRHIZOBIA ISOLATED FROM A WIDE RANGE OF FOREST LEGUMES NATIVE OF GUYANA AND AFRICA BY ANALYSIS OF PARTIAL 16S-23S rDNA INTERGENIC SPACER SEQUENCING

Antonio Munive, Roland Fetiharrison, Christine LeRoux, Éric Giraud, Philippe De Lajudie and Bernard Dreyfus.
Laboratoire des Symbioses Tropicales et Méditerranéennes CIRAD/IRD/INRA/ Agro-Montpellier, TA 10/J, Campus international de Baillarguet, 34398 Montpellier cedex 5, France.

Tropical rain forests are characterised by a high diversity of plant species. Only 30% of the trees in the world have been investigated for their capacity of developing nitrogen fixing symbioses and only a limited number of *Rhizobium* strains from leguminous trees have been isolated and characterised. The rhizobial diversity in Brazil has been recently studied by Moreira el *al.* (1993, 1998) using partial 16S rDNA gene sequences. We isolated 100 slow-growing bacterial strains from nodules of 7 forest legumes native of Guyana belonging to the genera *Andira, Dalbergia, Michaerium, Indigofera, Erythrina, Clitoria* and *Desmodium*, from 17 legumes natives of Guinea belonging to the genera *Penthaclethra, Aubrevillea, Mimosa, Desmodium, Piptadenium, Calpogonium, Centrosema, Mucuna, Milleria, Pterocarpus, Erythrina, Abrus, Samanea, Arthrosamanea, Piptadenia and Albizia*, and from 7 generes of Madagascar, *Dalbergia, Albizia, Desmodium, Crotalaria, Chadsia, Cadia et Mundulea*; representing 13 tribes belonging to either of the three subfamilies of the Leguminosae. The isolates were examined by analysis of partial 16S-23S rDNA Intergenic Spacer (IGS) sequences, a technique described by Willems el al. (in press) as a rapid tool to evaluate the diversity of bradyrhizobia isolated from tropical trees.

Moreira, F.M.S., M. Gillis, B. Pot, K. Kersters and A.A. Franco. 1993. System.Appl.Microbiol. 16, 135-146.
Moreira, f.m.s., k. Haukka and J.P.W. Young. 1998.Mol.Ecol. 7, 889-895.

FOURTH EUROPEAN NITROGEN FIXATION CONFERENCE

Organized by Spanish Society for Nitrogen Fixation

September 16-20/2000
Sevilla, Spain

Sevilla 2000

Organizers:
José Olivares Pascual (CSIC-Granada)
Antonio J. Palomares Díaz (Universidad Sevilla)