18 months postdoctoral position
Mycorrhizal communities in black truffle-producing ecosystems

Summary
Microbial ecologist with attested experience in microbiology, ecology and molecular analysis of microbial communities.
This 18 months post-doctoral position is available from May 2011 at LSTM (Mediterranean and Tropical Symbioses Lab; see web site at http://www.mpl.ird.fr/lstm/). This lab’s research is dedicated to plant symbioses with rhizobiales and mycorrhizal fungi.
It is located in Montpellier (France), in a scientifically rich environment for plant and fungal sciences, as well as evolutionary ecology.
Salary ranges from 1800 to 2200 euro/month, depending on applicant’s experience and diploma.

Description
Périgord black truffle (Tuber melanosporum) production dramatically decreased during the last century. If several parameters are amenable to explain this decline, it appears that the optimal biotic environment of truffle production is poorly documented and known mostly based on empirical assumptions. In the framework of a four-years ANR (French Research National Agency) project entitled SYSTRUF, it is proposed to characterize the plant, bacterial and fungal environments of diverse types of truffle-producing ecosystems in Languedoc-Roussillon.
These truffle-producing ecosystems range from poorly man-impacted ecosystems such as managed forests stands, to pure man-made monospecific plantations of Quercus saplings inoculated by Tuber melanosporum in nurseries. SYSTRUF aims at evaluating how the development and fructification of Tuber melanosporum might be related to plant, bacterial and fungal associates of the Quercus-Tuber melanosporum symbiosis. This will be achieved through the molecular characterization of microbial environmental samples (soil, spores and root systems), using mainly high-throughput sequencing approaches.
The applicant will be invited to punctually contribute to other projects on truffles within the SYSTRUF program, especially experimental approaches carried out at the Centre d’Ecologie Fonctionnelle et Evolutive in Montpellier (team of M.-A. Selosse, coordinator of the SYSTRUF program) and research on bacterial diversity at the INRA Nancy (team of F. Martin and P. Klett).

Requested experience
Education level: PhD in microbiology, microbial ecology, plant-microbe interactions, eventually with a postdoctoral experience.
Research experience: the applicant should be familiar with field sampling methods, have good experience in microbiology and molecular analysis of microbial diversity (DNA extraction from environmental samples, PCR optimization methods, fingerprinting, basic phylogenetic tools). An experience with high-throughput sequencing (pyrosequencing especially) will be appreciated, as well as an experience with mycorrhizal fungi.
Languages: English (good level) and French (basic, preferred but not necessary)

Contact: Yves PRIN, LSTM, Campus International de Baillarguet, 34398 Montpellier Cedex 5, France, Tél: 33 (0)467 59 37 86 ; Fax: 33 (0)467 59 38 02; Email: yves.prin@cirad.fr

Applications will be received until April 30th.
In your email/letter, please include a curriculum-vitae and the name and e-mail address of two referees.