1. Title
How do Interactions with Organo-Mineral Surfaces Alter the Dynamics and Properties of Microbes and Macromolecules in Soil?

2. Type
Commission Symposium: Comm. 2.5-Soil chemical, physical and biological interfacial reactions

3. Organizer(s) & Convener
Siobhán STAUNTON, INRA
Ecologie Fonctionnelle et Biogéochimie des Sols et des Agroécosystèmes (Eco&Soil), Place Viala, 34060 Montpellier, France
Tel: +00 33 (0)4 99 61 23 31
Fax: +00 33 (0)4 99 61 21 19
E-mail: staunton@montpellier.inra.fr
Website: http://www5.montpellier.inra.fr/ecosols

Qiayun HUANG
State Key Laboratory of Agricultural Microbiology, Huazhong Agricultural University, Wuhan 430070
China
Tel: +86-27-87671033
Fax: +86-27-87288618
E-mail: qyhuang@mail.hzau.edu.cn
Website: http://www.researcherid.com/rid/A-8418-2012

4. Rationale
Adhesion of microbes and adsorption of macromolecules, in particular enzymes and other proteins, may profoundly modify their role in soil. Adhesion and adsorption influence mobility, growth, lifespan, may provide protection against breakdown, and modify the toxicity of pathogenic proteins. It is essential to investigate biological properties in the presence of soil, despite the additional experimental complexity.

5. Objectives
The aim of this session is to promote interdisciplinary studies of soils and soil interfaces. This approach is central to Commission 2.5

6. Description
This symposium will attract studies of bacteria, fungi, enzymes, and organic macromolecules, including toxins and there will be overlap with studies of soil organic matter dynamics. There will be new ideas aired, new challenges met, old ideas questioned, new techniques tested and emerging problems addressed. Priority will be given to studies of natural interfaces using new techniques or probes, to interdisciplinary studies and to topical scientific questions.