

DOCTORAL GRADUATE POSITION

We are looking for a motivated student interested in doing a PhD thesis focused on interactions and microbial adaptation occurring in agricultural soils following cattle manure amendments. Manure additions improve soil fertility but also induce changes in the community assembly and structure of soil microorganisms that are not well known. Experimental models using laboratory microcosms will be set up to disentangle the relative influence of abiotic and biotic interactions between soil and manure microorganisms. The consequences on the ecosystem functioning will be also investigated. The development of this thesis will allow a better understanding of the resilience of soil microorganisms to colonization by foreign lineages, improving our predictions about the dissemination of resistant bacteria and antibiotic resistance genes in the environment after manure spreading.

This doctoral thesis proposal provides a general theory-practice framework, but it is open, and the applicant will be encouraged to develop his/her own concerns and interests. The thesis will address relevant issues within soil microbiology, community ecology and molecular biology. An essential part of this thesis will include bioinformatic processing of DNA sequencing data and thus, previous experience with Linux, R and the command line is a plus.

LOCATION: Biology Centre of the Czech Academy of Sciences, Institute of Soil Biology, České Budějovice (Czech Republic). Experimental tasks will cover soil field sampling, microcosms set up and sampling and laboratory analyses.

REQUIREMENTS: Bachelor's degree in biology or related fields with strong analytical aptitude are required. Master's degree is also required. A high level of English (B2 or higher) is mandatory. Those interested can send a letter of motivation and the curriculum vitae by mail (see below) before September 10. Candidates will be initially evaluated according to the CV and motivation letter, their training and previous experience. The final evaluation will be done by a face-to-face interview or via Skype.

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