



In the context of a FP7 KBBE European Project, **BachBerry** (*BACterial Hosts for production of Bioactive phenolics from bERRY fruits*), we are seeking **two PhD candidates** to work:

- for one, in the CSI team at the IDMEC-IST in Lisbon, Portugal (<http://www.idmec.ist.utl.pt/>);
- and for the other, in the BAMBOO team at the Inria-UCBL in Lyon, France (<http://team.inria.fr/bamboo/>).

Both teams are methodological with an expertise in computational and systems biology. Each successful candidate will also interact with the team in the other country.

This project aims at tapping the potential of living organisms or systems to develop or make natural chemical compounds that are believed to be useful for medicine, agriculture, bioremediation, biodegradation, etc. Most often, the compound is already produced by the organism but in small quantity, and one needs then to manipulate it in order for the production to be increased. Other situations require transplanting part of the chemical factory of an organism into another, in general a bacterium, for better efficiency. In some cases, the transplant might better be split among a community of different bacteria in interaction.

BachBerry is more specifically interested in the generation of bacterial platforms for sustainable bio-based production of phenolic compounds found in berry fruits. Phenolics are recognised for their antioxidant health-promoting and functional properties, and applied across applications as diverse as aromas, colours, nutraceuticals, and medicines.

More specifically, we are looking for candidates with a Master in either of the following areas: computer science, mathematics, statistics, computational biology, metabolic engineering, regulation, or related, with a strong taste for inter-disciplinary research, and with very good interpersonal skills.

Ideally, the person will have some experience with optimisation techniques and:

- for the group in Lisbon, in dynamic models, control theory or machine learning;
- for the group in Lyon, in computational biology, graph algorithms or statistics.

Both PhD students will be in co-supervision between the Portuguese and French teams, with plenty of opportunities to travel between the two countries.

Unusual CVs are welcome. Knowledge of the Portuguese language (Brazil/Portugal) would also be a plus.

Applications should include a motivation letter, a CV, copies of the relevant certificates, and the address of three references. The applications should be sent to both: Susana Vinga, susanavinga@gmail.com and Marie-France Sagot, marie-france.sagot@inria.fr, ideally before **August 15, 2013**.