

Year of CfP: 2010

Project N° 1000-001

Project title: International Research and Formation Project of one year in Health and Nutrition (Nutriform)
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Units managing the project: IATE (Agropolymer Engineering and Emerging Technologies) (CIRAD, INRA, SupAgro, UMII)

Project leader: Valérie Micard (micard(a)supagro.inra.fr)

Countries involved in the project: Finland, Switzerland

Research units from the Foundation's scientific network involved: SQPOV, SPO

Sub-thematic axes: STDI-2 Socio-Technical Dynamics of Innovation 2: *Agrifood innovations, food and non-food use of plant crops*

Objectives:

The IATE unit is conducting studies on the relationship between food structure and its nutritional properties, also called the « matrix effect ». The present project is part of the 3 years "Phenomat" research project which aims at determining the relationship between the structure of a cereal matrix rich in ferulic acid and the bioavailability and effect of ferulic acid on mice metabolism (matrix effect). Ferulic acid is a natural wheat grain antioxidant, which can be associated with protection against oxidative stress. The structure of the cereal fraction could affect the antioxidant properties and the quality of health protective compound ferulic acid. Previous studies have demonstrated the very low bioavailability of ferulic acid from cereal fractions and thus the necessity to modify the structure of the cereal fractions in order to improve the bioavailability and health effects of the ferulic acid they contain. The experimental part of this project will be conducted in a nutrition team at the University of Eastern Finland.

During this year courses of the Master of Public Health and Nutrition will also be followed. This should allow the implementation of new courses on Food science and Nutrition at Montpellier SupAgro, which should benefit to the formation of engineers in Food Industries.

Total Agropolis Fondation funding: €20,000

Funding category: Agropolis Fondation small grants (release from teaching duties)

Project duration: 01 November 2010 - 27 February 2013

Keywords: nutrition – cereal matrix - ferulic acid – antioxidant