

SYMBIOSIS-EU- Scientific synergism of nano-bio-info-cogni science for an integrated system to monitor meat quality and safety during production, storage, and distribution in EU
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The SYMBIOSIS-EU project will bring together 14 partners from 6 EU countries (plus one each from NZ and US) to study meat safety & quality. The overall aim is to identify and quantitatively evaluate practical and easy to use chemical, biochemical and molecular indices and establish their applicability as quality monitors for inspection of meat safety and quality. The project will apply a multidisciplinary system-wide approach relying on converging technologies (bioinformatics, nanotechnology, modelling) to obtain knowledge for meat safety that will be translated into simple devices and practical indicators of quality and safety.

The main objectives are

- to develop and/or validate easy to use chemical/biochemical methods (e.g. biosensors, fluorescence, FT-IR), molecular methods (DNA microarrays),
- to develop a suitable software platform for data sharing and integration,
- to apply multivariate statistical methods and machine learning (neural networks, fuzzy logic, genetic algorithms) to identify robust multiple compound quality indices,
- integration of the sensors and information platform and development of a system to automatically transform data acquired from a sample into a diagnosis of meat safety and quality.

Coordinator

AGRICULTURAL UNIVERSITY OF ATHENS (GREECE)

Other participants

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

CRANFIELD UNIVERSITY (United Kingdom)

ZENON S.A. ROBOTICS AND INFORMATICS (Greece)

NATIONAL AGRICULTURAL RESEARCH FOUNDATION (Greece)

ECOLE NATIONALE D'INGENIEURS DES TRAVAUX AGRICOLES DE CLERMONT-FERRAND (France)

TECHNOBIOCHIP S.C.A R.L. (Italy)

FLEX PACKAGING AL SPA (Italy)

PAPADOPOULOS APOSTOLOS SIA OE (Greece)

VIDEOMETER A/S (Denmark)

INSTITUTE OF ENVIRONMENTAL SCIENCE AND RESEARCH LIMITED (NEW Zealand)

STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK (Netherlands)

THE UNIVERSITY OF MANCHESTER (United Kingdom)

COLORADO STATE UNIVERSITY (United States)

Start date 01/10/2008

End date 30/09/2011

Duration 36 mesi

Project cost 3.03 million euro

Project Funding 2.28 million euro

Subprogramme Area Converging technologies and their potential for the food area

Contract type Small or medium-scale focused research project