7TH EUROPEAN FRAMEWORK PROGRAM.
LEAN GREEN FOOD PROJECT (MARIE CURIE).

PHD SCHOLARSHIP IN GENERATION OF BIOSENSORS FOR NOVEL FOOD PRODUCTION TECHNOLOGIES.

In the Marie Curie Initial Training Networks, LeanGreenFood, Biosensores S.L. Valencia Spain seeks a PhD student to develop biosensors for novel food production technologies. The aim of the LeanGreenFood project is to reduce the chemical treatment in the production of the food and food ingredients by utilizing enzymatic catalysis in the process. The specific objectives of the present PhD study are to design and implement biosensors to control and optimize food production processes using specific enzymes. The key enzyme for the food process is bound to a solid substrate in order to increase the life time activity. A sample is automatically removed from the reaction tank and delivered to the biosensor where the enzyme is retained while other molecules are washed out. A reference aliquot of a specific substrate of the key enzyme is presented to the biosensor to asses the remaining enzymatic activity. The transducer produces a signal proportional to this remaining activity. After measurement, the biosensor is automatically washed out in order to be ready for the next analysis. The developed software for the biosensor gives also a feedback to introduce in the reaction tank an aliquot of fresh key enzyme to maintain optimal conditions for the food processing.

Qualifications
Candidates should have a master's degree in analytical chemistry with good background in biomolecular and/or biosensor technologies. Programming knowledge will be appreciated.

The student should have a strong interest in automated methods of analysis. The student must be an enthusiastic and innovative researcher with good interpersonal skills and excellent expression in written and oral English. During the assessment of the candidates consideration will be given to relevance of background experience.

The chosen candidate will be part of the team of the company, collaborating in its R&D diary activities and objectives of Biosensores SL.

Due to EU requirements, the candidate cannot have the Spanish nationality. Furthermore, candidates that have been in the Spain for more than 12 months during the past 3 years cannot be appointed for this PhD position.

Approval and Enrolment
The scholarships for the PhD degree are subject to academic approval, and the candidates will be enrolled in one of the degree programs of Agricultural University of Athens (AUA).

Salary and appointment terms
We offer a full-time position for a period of one year with possibility of extension to three years. The salary, in line with the EU regulations concerning the Marie Curie Initial Training Networks is € 2745,62/month.

Place of work
The work will be developed in Biosensores facilities in Valencia and Moncofar, Spain, and in the chemistry laboratory of AUA.

- **AUA** is the leading Greek Agricultural University training the majority of undergraduate and graduate students in Greece offering agricultural and food related courses. The Staff of the chemistry laboratory works in food and natural products research. Special emphasis is given to analytical technologies concerning various aspects of automated methods (flow injection, sequential injection lab-on valve and fluidic technologies), development of methodologies based on optical & electrochemical biosensors, spectroscopy (fluorescence, luminescence, raman & ir), chromatography (HPLC, GC) and ICP-MS. Facilities include UHPLC-MS-MS, GC-MS, ICP-MS, FT-IR, FT-Raman, Sequential & flow injection instrumentation.

  The department consists of six faculty members, two technicians and currently hosts three post doc collaborators, thirteen Ph.D. and ten M.Sc. students of various backgrounds (food, agriculture, chemistry, chemical engineering and environment).

  Beyond collaborations with Greek research organizations, the department has links and collaborations with European and American Universities/companies that provide a multinational-multidisciplinary research and training environment.

- **Biosensores SL**, constituted in 1990, is a pioneering company in Europe in the field of biosensors technology. During more than 15 years, it has participated actively in different national and international projects, among them 4^{th}, 5^{th}, and 6^{th} European Framework Program (7 different projects), Spanish Defense Ministry or the Spanish Research Council (CSIC), in collaboration with universities and public and private partners.

  Nowadays, it has 470 m2 facilities for R&D activities, between its headquarters in the town of Moncofa (Castellón) and the Scientific Park of Valencia.

  Its principal activity is to develop automatic systems based on specific biosensors for real-time detection and quantification of chemical or biological molecules in different kind of sample. In the last years, the company has developed analytical instrumentation for monitoring of fundamental parameters in water quality control, reducing drastically time and cost per each analysis.

How to Apply
To apply please send:

1) A letter of motivation describing
   (i) Why you are interested in this position and
   (ii) What you can offer to the project
2) A CV including list of publications,
3) The marks (or level of degree, with details) obtained in the B.Sc. and/or M.Sc. degree. The average marks of the B.Sc. and M.Sc. need to be supplied in percentage or in ETCS points,
4) References.

ANY APPLICATION THAT NOT CONTAINS THESE 4 POINTS WILL NOT TAKE INTO CONSIDERATION AND, THEREFORE, EXCLUDED FROM THIS SELECTION PROCESS.

Please specify where you noticed the announcement. Please attach your application including diploma and other relevant documents no later than **28 February 2010** to cag@aua.gr and biosensores@biosensores.com

All interested candidates irrespective of age, gender, race, religion or ethnic background are encouraged to apply.

Further information
For further information please contact Dr. Teofilo Diez-Caballero, biosensores@biosensores.com, phone +34656909784 or Professor Constantinos A. Georgiou, cag@aua.gr, phone: +30 2105294248.