

## Marie Curie Short Term Position for Environmental/Biological Scientists

(STR4)

*INDUCTION OF OXIDATIVE STRESS IN  
MAMMALIAN AND FISH CELL LINES*



The Spanish National Institute for Agricultural and Food Research and Technology (INIA) is an autonomous Public Research Organization (OPI) belonging to the Ministry of Science and Innovation (MICINN) in Spain. The INIA is responsible for the management and coordination of agrifood R&D programs at the national level, as well as of the execution of its own research programs. At the INIA, the activity of the Department of Environment focuses, among others areas, on Ecotoxicology and Environmental/Ecological Risk Assessment of potentially polluting activities. The group EDTC (Endocrine Disruption and Toxicity of Contaminants) is interested in the particular mechanisms by which some toxics cause specific toxicity. The main tools used by the group are based on in vitro culture of some fish cells and cell lines. The knowledge obtained in the laboratory is applied to the detection of contaminants in the field and to the environmental risk assessment of chemicals.

The **group of Endocrine Disruption and Toxicity of Contaminants wishes to appoint for 10 months a Short Term Researcher** (STR, within the first four years of their career in research)

### **Job description:**

Oxidative stress generated in cells after exposure to a variety of toxicants is one of the major causes of toxicity. In this process, cells defend from the formation of reactive oxygen species (ROS) that could cause cell damage by means of different mechanisms involving glutathione and the induction of a variety of genes. Although these processes and the cross talk with cellular detoxification pathways are well characterized in mammals very few is known in fish. Currently, the research group offering this position is working on the induction of oxidative stress in fish cells and the relationship with other cellular detoxification pathways. The student will research on the induction of ROS after exposure to a selected group of contaminants in fish cell lines, and on the presence and the role played by detoxification pathways similar to those acting in mammals.

We are looking for a highly motivated candidate, with capabilities to work independently but in an interdisciplinary and international environment. Education in Biology, Biochemistry or related fields will be necessary and knowledge of Molecular Biology techniques desirable.

### **Job Requirements:**

- Applicants are expected to have a university degree (MSc), and must be in the first four years of their career in research.
- Applicants must be proficient in spoken and written English.

---

**Type of job** Full time

**Application deadline (date of receipt)** 30.09.2010

**How to apply** Please apply online at <http://www.eco-itn.eu>

---

**Website** <http://www.eco-itn.eu> **Contact person** Dr. José M. Navas **Contact phone** +34-91 347 41 55 **email** [jmnavas@inia.es](mailto:jmnavas@inia.es)