

CONTRACT Ref:92/2018

Research Project Title: EUTOXRISK21. AN INTEGRATED EUROPEAN 'FLAGSHIP' PROGRAM DRIVING MECHANISM-BASED.

IIS La Fe has decided to publish a call for a job offer, by a competitive procedure, for a 1 Postdoctoral researcher (Doctorate degree in Chemistry, Pharmacy, Biotechnology or others with strong Analytics background), to perform the tasks in the framework of the Project 2015/0465

EU-ToxRisk – An Integrated European 'Flagship' Programme Driving Mechanism-based Toxicity Testing and Risk Assessment for the 21st century (681002 / H2020-PHC-2015) <http://www.eu-toxrisk.eu/>

The objective of EUTOXRISK21 is to drive a paradigm shift in toxicology towards an animal-free, mechanism-based integrated approach to chemical safety assessment. The project will unite all relevant disciplines and stakeholders to establish: i) pragmatic, solid read-across procedures incorporating mechanistic and toxicokinetic knowledge; and ii) ab initio hazard and risk assessment strategies of chemicals with little background information. The project will focus on repeated dose systemic toxicity (liver, kidney, lung and nervous system) as well as developmental/reproduction toxicity. Different human tiered test systems are integrated to balance speed, cost and biological complexity. EUTOXRISK21 extensively integrates the adverse outcome pathway (AOP)-based toxicity testing concept. Therefore, advanced technologies, including high throughput transcriptomics, RNA interference, high throughput microscopy, and LC- and GC-MS metabolomic approaches will provide quantitative and mechanistic underpinning of AOPs and key events (KE).

Research Project ID: 2015/0465

Service/Unit/Accredited Group: : Experimental hepatology and transplant unit

Candidate requirements: (*All requirements are necessary to apply*):

- Postdoctoral researcher (Doctorate degree in Chemistry, Pharmacy, Biotechnology or others with strong Analytics background)

Merits to value: (*0-5 points*)

- Robust experience in the use of chromatography (LC/GC-MS) and high resolution mass spectrometry (HRMS) techniques (HILIC (Polar/ionic metabolites), Reverse Phase (RP, C-18, for lipids), Reverse Phase (RP, C-8, for medium/low polarity metabolites), Gas Chromatography (GC, for small molecules)
- Previous research experience in international laboratory
- Previous work in the management of clinical and in vitro samples
- Previous experience in liver-linked research projects.
- Proven experience in data analysis (experience in biostatistics and bioinformatics analysis -Matlab, R, etc.) of analytical data.
- Knowledge and skills in molecular biology techniques (RNA extraction, qPCR, primer design, etc).
- Experience in writing both reports of experimental results and scientific articles
- Excellent knowledge of English

Curriculum vitae and Academic Track-Record (*0-2 points*)

- Additional/Complementary courses and specific formation on the abovementioned skills and linked to the specific roles to develop in each level position.
 - Other complementary education and skills for the main purpose of managing research projects and activities.
 - Previous participation in research projects sponsored by competitive public calls and contracts.
 - Courses and training taken in the analytical technologies requested in this call.
- Specific: Academic track-record: Years of accredited work experience and its degree of relationship with the functions to perform.

Level 1: A Doctorate Degree, demonstrating experience biomedical analysis, previous research undertaken

Other Merits: (Complementary Training) (0-1 point)

- Lab management skills (orders, safety rules, etc.)
- Languages (Other European languages, in addition to the specific English level required for each level.
- Stages abroad (Erasmus or equivalent, accordingly to the educational level)
- Computer skills (Office applications, presentations, data bases).

Training/Roles to develop:

- Metabolomic analysis by HPLC-MS; GC/MS of biological samples from in vitro and in vivo experiments
- Handling and preparation of human and cell samples for metabolomics analysis to identify changes associated with drug toxicity.
- Development and quality assurance of analytical methods for identification and quantitation of hepatotoxicity and establishment of new metabolomic standards.
- Bioinformatic analysis of data
- Identification and quantitation of metabolites as potential biomarkers
- Building predictive models
- Application of techniques to assess hepatotoxicity of drugs to cultured hepatocytes and clinical samples.
- Implementation of metabolomic strategies to characterize the hepatic phenotype of cells
- LC-MS, GC-MS instrument control and maintenance under GLP's
- Training and use of other specialized techniques routinely used in the Unit for the development of the research projects (adenovirus use, high content analysis, molecular biology approaches, etc)
- Preparation of scientific manuscripts and participation in seminars and congresses
- Roles of coordination and progression of the research projects (experiments design, results reporting, etc).

Contract/Fellowship characteristics:

- Full time 40 hours
- Amount: 2.830,00 € gross/month
- Length: : 6 months renewable.
- Exclusive devotion.

Deadline for application submission: 25/12/2018

Required documents On-Line www.iislafe.es

- Updated Curriculum Vitae.
- Track-Record with academic grade media.
- Copy of required educational qualifications.
- Supporting documents of the outlined merits.

** The documentation submitted for this open competition will be on deposit of IIS La Fe.*