

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 Pre - doctoral researcher (University degree with chemistry/analysis 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: : HEPATOLOGIA EXPERIMENTAL

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

Pre - doctoral researcher (University degree with chemistry/analysis background)

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

- 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), preferably applied to metabolomics analysis
- Skills in the management of clinical and in vitro samples and their analysis by ME
- Previous experience in liver-linked research projects.
- Experience in data analysis (experience in biostatistics and bioinformatics analysis -Matlab, R, etc.,- of analytical data)
- Experience in writing both reports of experimental results and scientific articles
- Good knowledge of English (written and spoken)

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

General:

- 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 2: Scores in Chemistry University Degree. Previous Pre-doctoral experience and formation

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 (Offimatics, presentations, data bases).

Training/Roles to develop:

Level 2:

- Use of metabolomic techniques based on HPLC_MS; GC/ME of biological samples from in vitro and in vivo experiments, to identify and quantify metabolites as potential new biomarkers of damage and disease

- 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 under GLP.
- Bioinformatic analysis of data and 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
- Training and use of other specialized techniques routinely used in the Unit for the development of the research projects (cell culture, molecular biology techniques adenovirus use, high content analysis, molecular biology approaches, etc.)
- Contribution to the preparation of scientific manuscripts and participation in seminars and congresses

Contract/Fellowship characteristics:

- Full time 40 hours
- Amount: 2.350,00 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.*