

INTERNATIONAL CALL IC58_23

JOB TITLE

PhD candidate associated at MP-DiGuLi project (Microplastics: Dietary intake, impact on gut and promotion on liver damage).

Researcher career profile (R1)

JOB DESCRIPTION

Microplastics (MPs), synthetic or semisynthetic polymeric matrix ranging from 1µm to 5 mm that are insoluble in water, are persistent in the environment because the majority have half-lives from hundreds to thousands of years. Unfortunately, dietary studies focused on the quantification of MPs in food products and their intake are lacked, with only few exceptions focused on very specific food items, such as seafood and table salt. Therefore, it is strictly necessary to detect the main exposure sources, detailing the contribution of different food items on the ingestion of MPs by the general population. In this sense, there is a growing concern about the presence of MPs in food and the possible health consequences of their intake by humans. MPs exposure can induce intestinal dysbacteriosis and inflammation and also increase the risk of secondary liver injury associated with inflammatory cell infiltration. In addition, MPs exposure may induce a disturbance of energy and lipid metabolism as well as oxidative stress. These disturbances can cause health disorders such as obesity or non-alcoholic fatty liver disease (NAFLD). NAFLD is considered one of the most prevalent chronic liver diseases worldwide due to the rapidly rising prevalence of obesity. Therefore, it can be hypothesized that such interactions may alter the migration behaviour and exposure patterns of MPs, interacting with the intestine and its defence and or signalling function, which could increase the impact on liver involvement. Nevertheless, to date, we have not found human studies examining the relationships among MPs, intestinal function, and NAFLD pathogenesis.

Present multidisciplinary research project, including this PhD position, is funded by the Spanish science and innovation ministry «Proyectos de Generación de Conocimiento correspondiente al año 2022 (PID2022) y a actuaciones para la formación de personal investigador predoctorales asociados a dichos proyectos»

The Center for Environmental, Food, and Toxicological Technology (TecnATox) was born in 2008 as a result of the merger of members of the group of the Laboratory of Toxicology and Environmental Health (LTSM) and the groups of Environmental Analysis and Management (AGA, later AGACAPE)

and Research in Neurobehavior and Health (NEUROLAB). TecnATox aims to carry out research and development in the field of environmental and food protection at the European level, as well as to satisfy, from the University, the needs of the administration and the productive sectors, utilizing actions of knowledge and technology. The Center for Environmental, Food, and Toxicological Technology (TecnATox) is functionally attached to Health and the Environment of the IISPV and works in close relationship with the other units of the institute.

The Pere Virgili Institute for Health Research (IISPV) is an institution that integrates research in the field of biomedicine in the "Camp de Tarragona" and the "Terres de l'Ebre". The IISPV is the instrument that the university hospitals of both health regions have been endowed with (Joan XXIII University Hospital of Tarragona, Verge de la Cinta Hospital of Tortosa, Sant Joan de Reus University Hospital, Institut Pere Mata University Hospital of Reus) and Rovira and Virgili University, in order to bring together and manage biomedical research and innovation in the territory.

Number of available positions: 1

The selected candidate will perform the following tasks: Analysis of microplastic in food and human biological matrices (stool and intestine); biochemical experiments and analysis to determine impact of microplastic in gut and liver health (inflammation); and human samples collection and management.

CANDIDATE PROFILE & REQUIREMENTS

- Degree in Biochemistry, biotechnology, chemistry or similar.
- Master degree that allow access to a doctoral programme.
- Speaking and written english skills (minimum level C1 or similar)
- Experience will be valued positively in microplastics analysis (IR, RAMAN), biochemistry techniques, NAFLD, and work related with cohorts.
- The candidate must be admitted to a doctoral program at the time of starting the contract

IT WILL BE VALUED

- Knowledge of microplastic analytical techniques and non-alcoholic fatty liver disease (NAFLD).
- Good academic records.
- Motivation, creativity, initiative and proactive attitude.
- Ability to learn, flexibility and adaptability.
- Previous experience in cohort studies, microplastic analysis or/and in in vitro, ex vivo test.
- Teamworking, ability to work independently, to organize, kindness, dynamism, versatility, rigour, responsibility and confidentiality
- Carry out research under supervision
- Have demonstrated a good understanding of a field of study

LABOUR CONDITIONS

- Full-time position
- Workplace: Campus Sescelades (URV) and Hospital Universitari Joan XXIII de Tarragona
- Contract: Pre-doctoral (the project tasks will last 4 years)
- Gross annual salary: Between 17,651€ and 23,640 € depending on the year of the contract, in accordance with the salary tables of the Statute for pre-doctoral research staff in training that will change every year, and according to the funding of the aid.
- Starting date: 01 de October de 2023 (orientative), depending on the final resolution of the call.

SELECTION PROCEDURE

- Selection of CV's. Suitable and unsuitable CV's will be identified according to the requirements. Applicants who do not meet the requirements indicated in the candidate profile and requirements will not pass to the next phase.
- Evaluation of the CV. Evaluation of the CVs up to a maximum score of 50 points.
- Cover Letter. Attach to the resume a cover letter with a maximum length of 2500 characters with spaces. With a maximum score of 10 points.

To access the interview phase it is necessary to have obtained a minimum score of 45 points in the sum of scores of the evaluation of the curriculum and cover letter

- Personal interview. With a maximum score of 40 points.

Items	40
Attitude	15
Fit in the work place	10
Experience, developed functions/skills	10
Teamwork	5

SELECTION COMMITTEE

- President: Dr. Joaquim Rovira. (Principal Investigator)
- Chair 1: Dr. Teresa Auguet. (Principal Investigator)
- Chair 2: Dr. Raúl Beltrán. (Principal Investigator)

SUBSTITUTES:

- President: Dr Martí Nadal. (Principal Investigator)
- Chair 1: Dr. Laia Bertran (Post doctoral resercher)
- Chair 2: Dr. Nora Exposito. (Post doctoral Researcher)

CANDIDATURES

- The CV must include the DNI/NIE number or another personal identity document number.
- Academic records
- Send the CV and a Cover Letter through the IISPV website.
<https://www.iispv.cat/treballa-amb-nosaltres/>

For any questions or queries: recruitment@iispv.cat

DEADLINE FOR RECEIPT OF CV 25/09/2023

COMMUNICATIONS

The IISPV will notify the candidates of the results of the different phases of the selection process through its website.

HR EXCELLENCE IN RESEARCH

The IISPV has the European accreditation The Human Resources Strategy for Researchers (HRS4R), complies with the general principles of the European Charter for Researchers and the Code of Conduct for the recruitment of researchers.

The IISPV has an internal recruitment policy that follows the Open, Transparent and Merit-based Recruitment (OTM-R) policies. More information about the HRS4R policies implemented at the IISPV is available on the following website: <https://www.iispv.cat/hrs4r-hr-excellenceresearch/>

The IISPV will guarantee the right to equal opportunities and treatment, as well as the real and effective exercise of rights by people with disabilities under equal conditions with respect to other citizens, through the promotion of personal autonomy, universal accessibility, access to employment, inclusion in the community and independent living and the eradication of any form of discrimination, in accordance with articles 9.2, 10, 14 and 49 of the Spanish Constitution and the International Convention on the Rights of Persons with Disabilities and international treaties and agreements ratified by Spain.

In the event of a tie, priority will be given to hiring the person with a disability.

In the event of a tie between people of different genders, the person of the least represented gender in the work group/department/service in which he joins will be hired.