FUNDACIÓN del HOSPITAL NACIONAL de PARAPLÉJICOS	**OFFER OF EMPLOYMENT**		
REFERENCE	**OPENING DATE**	**CLOSING DATE**	
2022_ PID2021-125428OB-I00_R2	25/11/2022	08/12/2022	
WORK CENTER			
Hospital Nacional de Parapléjicos			
RESEARCH GROUP/DEPARTMENT		**LEAD RESEARCHER**	
Biología De Membranas Y Reparación Axonal		JOSÉ ABAD RODRIGUEZ	
ADDRESS	**CITY**	**PROVINCIA**	**OPOST CODE**
Finca de la Peraleda s/n	Toledo	Toledo	45071
CANDIDATE PROFILE			
PROFESSIONAL CATEGORY	**ACADEMIC QUALIFICATIONS**		
Recognised Researcher (R2) / Senior Technician (A1)	Ph.D. (Biochemistry or other biomedical fields)		
PREVIOUS EXPERIENCE			

- ✓ Management of experimental rodents: maintenance of genetically modified mouse colonies, genotyping.
- ✓ Motor and cognitive behaviour tests (Rotarod, Y-maze, Novel object recognition).
- ✓ Collection and processing of biological samples (tissues, blood and faeces).
- ✓ Histochemistry (Black Gold and Fast Blue methods for myelin; Golgi method for the study of neuronal morphology and dendritic spines), immunohistochemistry and immunofluorescence. In situ hybridisation.
- ✓ Molecular biology: Purification and analysis of nucleic acids. Real-time-PCR. Pre-processing of samples for massive sequencing and metagenomics.
- ✓ Biochemistry: Cell and tissue extracts, quantification and analysis of proteins, Western-blot, ELISA. Pre-processing of biological samples for proteomic and metabolomic analysis.
- ✓ Microscopy and image analysis. Imaging in brightfield, epifluorescence, confocal and robotic microscopy for high-content screening.
- ✓ Bioinformatics and biostatistical data analysis using R and Phyton programming languages. Use of GraphPad-Prism and SPSS software. Accredited/official studies/knowledge in biostatistics and bioinformatics would be an asset.
- ✓ Strong publication record in high quality journals, demonstrating competence in the field/area of glycobiology, in particular lectin functions in the nervous system.

- ✓ Preparation of scientific articles for publication in international journals. Preparation and presentation of scientific results at congresses and conferences. project preparation skills. level of spoken and written English commensurate with these activities.
- ✓ Experience in tutoring/directing bachelor's or master's degree theses.

REQUIRED PROFILE

- ✓ Training for Research Animal Experimentation Personnel. Categories A, B and C.
- ✓ A experience of at least three years in research laboratories in the field of neurosciences will be an asset.

DESCRIPTION OF THE TASKS TO BE PERFORMED IN THE PROJECT/KNOWLEDGE TO BE ACQUIRED AND/OR SKILLS TO BE DEVELOPED

- ✓ Maintenance of a colony of Gal-4 knockout mice. Genotyping of progeny.
- ✓ Obtaining fresh mouse tissues. Purification of mRNA.
- ✓ Perfusion of mice to obtain fixed tissue.
- ✓ Histochemistry and immunofluorescence on tissue.
- ✓ Microscopy and image analysis
- ✓ Sampling of mouse blood and faeces.
- ✓ Metabolomic analysis by LC-MS of mouse serum.
- ✓ LC-MS lipidomic analysis of mouse serum.
- ✓ Metagenomic analysis of mouse intestinal microbiota.
- ✓ Motor and cognitive behavioural tests in mice.
- ✓ Organotypic brain cultures. Electrophysiological preparation and measurements
- ✓ Electrophysiological studies in live mice.
- ✓ Analysis of results and preparation of manuscripts/presentations.

MOTIVATION

The person hired will work as a member of the research team of the project "Memory disorders, anxiety and depression induced by alterations of the microbiota-gut-brain axis. From "-omics" to Behaviour" funded by the AEI within the programme Proyectos de Generación del Conocimiento (Ref. PID2021-125428OB-I00).

In this project we propose to unravel the mechanisms by which specific alterations at the intestinal level produce cognitive and mood disorders, using galectin-4 KO mice as a model and taking into account the variable of age.

To this end, we will detect functional alterations in the prefrontal cortex by in vivo electrophysiological measurements, as well as by biochemical methods. We will explore whether these correlate with cognitive or emotional modifications in specific behavioural tests. In addition, we will investigate the involvement of the gut in the neurological phenotype by comparatively analysing gene expression (mRNAseq) and gut microbiota (metagenomics), as well as metabolites present in serum and brain tissue (metabolomics and lipidomics) that may affect nervous system function.

The experimental designs, proposed techniques and bioinformatics analyses included in this project are very complex and technologically sophisticated, and therefore require the contracted researcher to have proven experience in all the aspects detailed in the "Previous experience" section, as well as a strong motivation and interest in the field of application.

CONTRACT INFORMATION

DURATION OF THE CONTRACT	**WORKING HOURS/DEDICATION**	**GROSS MONTHLY SALARY**
Contract for scientific and technical activities (art. 23 Royal Decree-Law 8/2022, of 5 April).	35h/week (Full)	1,885.43 euros gross/month (pro-rata extra payments)

APPLICATION AND DOCUMENTATION SUBMISSION PROCEDURE

Applicants must provide the following documents by e-mail to **rrhh.fhnp@sescam.jccm.es** **in a single document in PDF format**

- Cover letter (express mention of the reference of the offer).
- Curriculum Vitae of the candidate (including mobile phone number and contact e-mail address).
- Photocopy of ID card or legally accredited document.
- Photocopy of the required degree or certificate of its attainment.
- Documents accrediting experience (certificate of time worked or similar certificate issued by the Human Resources department of the corresponding company).

EVALUATION PANEL

The Evaluation Panel will be composed of:

- Chair: lead researcher /Service Manager
- Member: Member of the reception group
- Secretary: Human Resources of the Foundation

SELECTION PROCESS

The selection process will consist of two phases:

1st Phase: Evaluation of merits (6 points): in this phase, an evaluation of the merits and requirements established in the call for applications will be carried out by the Selection Board.

2nd Phase: Personal interview (4 points): Candidates who have obtained at least 4 points in the 1st Phase will be called for a personal interview with the Selection Board, which may be held in person or online. This interview will deal with the requirements established in the call for applications.

ADDITIONAL INFORMATION

The resolution of the present call for the recruitment of personnel is subject to the prior authorisation of the Ministry of Finance and Public Administrations of the Junta de Comunidades de Castilla-La Mancha.

2.- It will be required to have the nationality of any country belonging to the European Union or, failing that, to be in possession of a work permit. In those cases in which the candidate does not have a work permit, he/she must inform the Foundation during the selection process, which will inform the candidate of the process to follow in case he/she is selected.

3.- The recruitment of research/technical staff by the Foundation shall follow the principles of the OTMR policy established in the European Charter for Researchers: transparent, open and merit-based recruitment. (Available at: https://hnparaplejicos.sanidad.castillalamancha.es/es/fundacion-hnp/hrs4r)

4.- The recruitment of research/technical staff carried out by the Foundation is in accordance with the Equality Plan of the entity. (Available at: https://hnparaplejicos.sanidad.castillalamancha.es/es/fundacion-hnp/plan-de-igualdad)

All applications received in relation to job offers will be processed by the Foundation with the aim of selecting the most suitable candidate and in compliance with the public interest (art 6.1 e of EU regulation 2016/679) which contemplates the legally established transfer of data to public control bodies, audits and other public bodies; and the right of the applicant to request access, rectify and cancel data on their application when they consider it appropriate by contacting the contact address of the offer. By submitting an application, the interested party gives his/her consent to the processing of his/her personal data for the purpose of participating in the selection process and for sending/receiving communications related to the same.

6.- A special valuation will be given to those candidates who are in any of the following situations:

i) Disability equal to or greater than 33%: 0.5 points.

ii) Victim of gender violence: 0.5 points.

ii) Over 40 years of long-term unemployment in the last 5 years (0.05 points for each month of seniority up to a maximum of 2 points).

7.- Candidates may contact rrhh.fhnp@sescam.jccm.es (Telephone: 925. 24.77.61) for any doubts or questions that may arise in relation to the call for applications.

8.- Within 3 working days the candidates may present any complaints or claims after the communication of the finalization of the selection process, which will be dealt with within 15 working days.

9.- The contract will be formalised in writing, and the most appropriate contractual modality for the object of the contract will be used, from among those in force at the time of formalisation. The start date will be established in the contracting proposal, depending on the needs of the projects and provided that it is administratively feasible. Contracts may be terminated for any of the reasons foreseen in the Workers' Statute, or in the rest of the applicable legislation, and also those stated in the contract itself, among which the following shall be established: a) Completion or exhaustion of the budget appropriation, b) Completion of the tasks assigned to the employee's post within the project/unit, and c) Completion of the project.

10.- The gross salary of the present job offer has been established through the Salary Table established by the Foundation.

11.- Contracts may be terminated for any of the reasons set out in the Statute of Workers, or in other applicable legislation, and also those set out in the contract itself, among which the following shall be established: a) Completion or exhaustion of the budget appropriation, b) Completion of the tasks assigned to the employee's post within the project/unit and c) Completion of the project.

12.- This contract is part of the R&D&I project PID2021-125428OB-I00, financed by MCIN/ AEI/10.13039/501100011033/ and as appropriate: "ERDF A way of doing Europe".

Project PID2021-125428OB-I00 funded by MCIN/ AEI /10.13039/501100011033/ and by ERDF A Way of Doing Europe.

Project PID2021-125428OB-I00 funded by:

Toledo, 25th November 2022.

The Management of the Foundation

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Signed.: Sagrario de la Azuela Gómez