IISPV
INSTITUT D'INVESTIGACIÓ SANITÀRIA PERE VIRGILI

PhD Position (FPI Fellowship) in Tarragona – Project CIRCASUC

JOB DESCRIPTION

If you are passionate about **metabolism, and translational biomedical research**, and want to contribute to a project with strong clinical relevance, we warmly invite you to join us at **DIAMET** and be part of **CIRCASUC**.

The Project

The **CIRCASUC project** aims to explore an innovative concept: the metabolite **succinate** as a key endogenous signal synchronizing circadian rhythms with metabolism via its receptor **SUCNR1**. Our recent discoveries indicate that the succinate/SUCNR1 axis regulates core clock genes in adipose tissue and impacts crucial hormonal pathways (e.g. insulin, leptin). By integrating **animal models, in vitro systems, microbiota research, and human clinical cohorts**, this project will elucidate how succinate acts as a molecular bridge between clocks and metabolism, and how its dysregulation contributes to **obesity and type 2 diabetes**.

This is a unique opportunity to conduct a translational PhD at the intersection of **chronobiology, metabolism, and biomedical innovation**.

The Hosting Environment: IISPV and DIAMET

The PhD candidate will join the **DIAMET group** (*Diabetes and Associated Metabolic Diseases*), an interdisciplinary team internationally recognized for its pioneering work on metabolism, obesity, type 2 diabetes, and related complications. Our research integrates **basic science, clinical studies, and bioinformatics**, always with a strong translational focus.

The **IISPV (Institut d'Investigació Sanitària Pere Virgili)** is a leading biomedical research institute in Southern Catalonia, **linked to the Universitat Rovira i Virgili (URV)** and local university hospitals. IISPV provides state-of-the-art core facilities in genomics, proteomics, metabolomics, microscopy, and biostatistics, offering an excellent environment for high-impact research and doctoral training.

This publication is linked to a Knowledge Generation project with reference code: PID2024-155333OB-I00 funded by MICIU/AEI/10.13039/501100011033 and by the ESF+

The selected candidate will perform the following tasks:

- Conduct molecular, cellular, and animal-based experiments to investigate the succinate/SUCNR1 axis and its role in circadian and metabolic regulation.
- Perform metabolic, transcriptomic, and bioinformatic analyses of samples derived from in vitro models, animal models, and human cohorts.
- Manage and analyze experimental data, prepare reports, and contribute to scientific publications.
- Collaborate with team members across different disciplines (molecular biology, chronobiology, metabolism, clinical research).
- Actively participate in group meetings, scientific discussions, and presentations at national and international conferences.

CANDIDATE PROFILE & REQUIREMENTS

We are seeking a **highly motivated young scientist** with a passion for biomedical research and an eagerness to tackle interdisciplinary challenges.

The candidate must have:

- BSc and MSc degree in Biology, Biochemistry, Biotechnology, Biomedical Sciences, or related fields.
- Strong academic record (≥ 8/10).
- Proficiency in English (oral and written).
- Holding an Animal Experimentation Certificate, or having completed the required course covering the functions a (caring), b (euthanasia), c (procedures), and d (project design) according to RD 53/2013, and currently performing the required practical training for the official accreditation of functions b and c.
- Eligibility to enroll in a PhD program in Spain.

IT WILL BE VALUED

- Experience in molecular and cellular biology techniques.
- Familiarity with cell culture and/or animal experimentation.
- Knowledge of bioinformatics or omics data analysis.
- Teamwork skills and strong scientific curiosity.

- Scientific and technical contributions. These include academic records and other curricular merits, as well as their suitability for the tasks to be performed based on training and professional experience.
- The relevance and impact on the candidate's research career of their stays at national or international centres.
- The suitability of the candidate for the research activities to be carried out. To this end, the added value that the project will bring to their research career will be taken into account, as well as the value contributed to the centre and the group.

LABOUR CONDITIONS

- Full-time position
- Workplace: Hospital Universitari Sant Joan de Reus / Hospital Universitari Joan XXIII de Tarragona / Centre d'R+D+I en Nutrició i Salut
- 4-year fully funded PhD contract (FPI fellowship) associated with the CIRCASUC project.
- Gross annual salary: according to the final resolution of Knowledge Generation project with reference code: PID2024-155333OB-I00 and the salary scales for the FPI statute.
- Starting date: First Quarter of 2026

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. Candidates need to attach to the resume the CV, an academic record and a cover letter with a maximum length of 2500 characters with spaces.

All candidates who meet the minimum requirements mentioned above, will proceed to the interview phase.

The selection procedure shall be based on the following criteria:

Criterion 1. Academic and/or scientific-technical background of the candidate (up to 50 points).

- Scientific and technical contributions (up to 45 points): the academic record and other curricular merits of the candidate will be assessed, as well as their suitability for the tasks to be carried out based on training and professional experience.

- Mobility and internationalization experience (up to 5 points): the relevance and impact on the candidate's research career of stays in national and international

centers and/or in the industrial sector will be valued, taking into account the prestige of the host entity and the activity carried out.

Criterion 2. Suitability of the candidate for the research activities to be carried out (up to 50 points).
The suitability of the candidate for the program, project or research activities to be carried out will be assessed based on their previous training and experience. In doing so, consideration will be given to the added value that the implementation of the project will represent for their research career, as well as the value contributed to the host center and team.

CANDIDATURES

- The CV must include the DNI/NIE number or another personal identity document number and the academic records
- Send the CV, Motivation Letter and Contact details of at least 2 referees through the form that you will find on the bottom of the offer page **https://www.iispv.cat/treballa-amb-nosaltres/**

  For any questions or queries: recruitment@iispv.cat

DEADLINE FOR RECEIPT OF CV 15/11/2025

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

Key References from DIAMET related to the project:

SUCNR1 regulates insulin secretion and glucose elevates the **succinate** response in people with prediabetes. J Clin Invest. 2024 May 7;134(12):e173214. doi: 10.1172/JCI173214.

Type 2 diabetes and **succinate**: unmasking an age-old molecule. Diabetologia. 2024 Mar;67(3):430-442. doi: 10.1007/s00125-023-06063-7.

Protective effects of the **succinate**/SUCNR1 axis on damaged hepatocytes in NAFLD. Metabolism. 2023 Aug;145:155630. doi: 10.1016/j.metabol.2023.155630.

SUCNR1 signaling in adipocytes controls energy metabolism by modulating circadian clock and leptin expression. Cell Metab. 2023 Apr 4;35(4):601-619.e10. doi: 10.1016/j.cmet.2023.03.004

Orally administered Odoribacter laneus improves glucose control and inflammatory profile in obese mice by depleting circulating **succinate**. Microbiome. 2022 Aug 25;10(1):135. doi: 10.1186/s40168-022-01306-y.

Elevated plasma **succinate** levels are linked to higher cardiovascular disease risk factors in young adults. Cardiovasc Diabetol. 2021 Jul 27;20(1):151. doi: 10.1186/s12933-021-01333-3. PMID: 34315463 Free PMC article.

Rethinking **succinate**: an unexpected hormone-like metabolite in energy homeostasis. Trends Endocrinol Metab. 2021 Sep;32(9):680-692. doi: 10.1016/j.tem.2021.06.003.

Impaired **Succinate** Response to a Mixed Meal in Obesity and Type 2 Diabetes Is Normalized After Metabolic Surgery. Diabetes Care. 2020 Oct;43(10):2581-2587. doi: 10.2337/dc20- 0460.

Preoperative Circulating **Succinate** Levels as a Biomarker for Diabetes Remission After Bariatric Surgery. Diabetes Care. 2019 Oct;42(10):1956-1965. doi: 10.2337/dc19-0114.

SUCNR1 controls an anti-inflammatory program in macrophages to regulate the metabolic response to obesity.

HRS4R Research in HR Excellence

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 hir