

NECESSITY REPORT TO ESTABLISH THE CONTRACTING OF A SERVICE OF WHOLE GENOME SEQUENCING AND OPTICAL GENOME MAPPING SERVICE PROVIDED BY PROJECT PI23/00161, FOR THE TRANSLATIONAL IMMUNOLOGY RESEARCH GROUP FUNDACIÓ HOSPITAL UNIVERSITARI VALL HEBRON (VHIR).

Project PI23/00161, funded by Instituto de Salud Carlos III (ISCIII) and co-funded by European Union



2025-055 WGS SEQUENCING (PI23/00161)

Dr. Roger Colobran Oriol, Principal Investigator for Project PI23/00161 of the Fundació Hospital Universitari Vall d'Hebron - Institut de Recerca, proposes that the corresponding file be included for the contracting of the long-read whole genome sequencing (LR-WGS) service and Optical Genome Mapping (OGM) services for Project PI23/00161 entitled "Identificación y caracterización funcional de variantes genéticas estructurales en pacientes con errores congénitos de la inmunidad", funded by Instituto de Salud Carlos III (ISCIII) and co-funded by European Union for the Translational Immunology Research Group at the Vall Hebron University Hospital Foundation - Research Institute (VHIR).

These two molecular technologies form the basis of the FIS PI23/00161 project. This project aims to identify structural variants in patients with primary immunodeficiencies. The two technologies to be tendered (LR-WGS + OGM) are currently the most efficient for identifying this type of variant.

The long read (LR) sequencing service cannot be carried out on site as the necessary equipment is not supplied, so it has to be contracted out to an external provider. In the case of the OGM technique, the necessary equipment is also not supplied, so it has to be contracted out to an external provider.

Both services covered by the contract (LR-WGS and OGM) cannot be divided into lots, as one of the main focuses of the study is to analyse both technologies in tandem, and in order to integrate the results, all information must be centralised. Furthermore, given the nature of the project, we will sometimes need to perform both techniques simultaneously on a single sample from the patients included in the project. For this reason, a single supplier is required for all techniques and requirements. Both techniques require the use of high molecular weight DNA (HMW-DNA), which is extracted using a specialised procedure. Not dividing the project into lots allows both techniques to be performed with a single extraction.

As detailed below, the provision of services will consist of the extraction of high molecular weight DNA and DNA quality control. For LR-WGS, genome sequencing will be carried out using PacBio technology, and for OGM, samples will be prepared for analysis. The results obtained will be analysed and integrated in order to enable correct interpretation.

The duration of the service object of this tender will coincide with the validity of the aforementioned project which is until 31st December of 2026. The service will start on the day following the

formalization of the contract. It will be understood to be formalized on the date of the last digital signature.

However, if this project were to be found, for any unforeseen reasons, subject to the request of a possible extension, the end date will be susceptible to being extended, at most to the one that is finally authorized.

The total maximum budget is "ONE HUNDRED AND FIFTY THOUSAND EUROS" (150.000,00 €), VAT exempted, which is financed by the Project PI23/00161 entitled "*Identificación y caracterización funcional de variantes genéticas estructurales en pacientes con errores congénitos de la inmunidad*", funded by Instituto de Salud Carlos III (ISCIII) and co-funded by European Union.

In view of the need to carry out a negotiated procedure without advertising for reasons of exclusivity, and non-harmonized regulation according to criteria established in Law 9/2017, of 8 November, on Public Sector Contracting, whereby Directives of the European Parliament and of the Council 2014/23/EU and 2014/24/EU, of 26 February 2014, are transposed into Spanish law.

In view of all of the above,

IT IS HEREBY DECIDED:

- 1.- To order the opening of the tender file for the long-read whole genome sequencing (LR-WGS) service and Optical Genome Mapping (OGM) services for Project PI23/00161 entitled "*Identificación y caracterización funcional de variantes genéticas estructurales en pacientes con errores congénitos de la inmunidad*", funded by Instituto de Salud Carlos III (ISCIII) and co-funded by European Union for the Translational Immunology Research Group at the Vall Hebron University Hospital Foundation - Research Institute (VHIR), the maximum budget for this tender is set at 150.000,00€ VAT exempted.
- 2.- To order the certification of the existence of sufficient credit to certify that the VHIR has a sufficient budgetary endowment to face the expenses arising from this tender file.
- 3.- To draft the Specific Administrative Bidding Conditions and Technical Specifications in accordance with the provisions of the aforementioned Law.

Barcelona, on the digital signature date.

RESPONSIBLE

Dr. Roger Colobran Oriol

Principal Investigator for Project PI23/00161

Fundació Hospital Universitari Vall d'Hebron - Institut de Recerca