



***Fundació Hospital Universitari Vall Hebron - Institut de Recerca (VHIR)***

NÚM. EXPEDIENT: 2024-068 SEQUENCING OF NUCLEIC ACIDS (PID2023-147387OB-I00)

**DOCUMENT OF TECHNICAL SPECIFICATIONS  
NOT HARMONIZED TRADE – OPEN PROCEDURE**

**HIRING A SERVICE OF SHOTGUN METAGENOMICS SEQUENCING OF NUCLEIC ACIDS EXTRACTED FROM BIOLOGICAL SAMPLES AS PART OF COMPETITIVE PROJECTS IMPLEMENTED IN THE FUNDACIÓ HOSPITAL UNIVERSITARI VALL HEBRON - INSTITUT DE RECERCA (VHIR).**

The tender is part of the “Proyectos Generación del Conocimiento” grant, funded by MCIU/AEI/10.13039/501100011033 and by the ESF+



MINISTERIO  
DE CIENCIA, INNOVACIÓN  
Y UNIVERSIDADES



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## **Clause 1. Aim of the tender**

The object of this tender procedure is the contracting of the service of shotgun metagenomics sequencing of nucleic acids extracted from fecal samples by the Project PID2023-147387OB-I00 titled “*MODULATION OF THE GUT MICROBIOTA AND IMMUNE SYSTEM*” of the Microbiome Group of the Fundació Hospital Universitari Vall Hebron - Institut de Recerca (VHIR). The tender is part of the “Proyectos Generación del Conocimiento” grant, funded by MCIU/AEI/10.13039/501100011033 and by the ESF+.

The Microbiome Group does not have the necessary capacity to carry out this sequencing service to characterize the composition and function of the Human Microbiome in health and disease context.

This tender is not divided into lots because it is related to only one service, which is the shotgun metagenomics sequencing of nucleic acids extracted from fecal samples. This service should be performed and process by the same sequencing platform for all the samples of this project in order to be comparable.

Throughout this specification, the tasks included within the object of this contract are specifically described, as well as the scope of the proposed service.

## **Clause 2. Maximum budget of the tender.**

In the present tender procedure, the maximum tender budget and the estimated value of the contract match.

The maximum total budget, corresponding to the total duration of the procedure, is “**SEVENTY-EIGHT THOUSAND EUROS**” (€ 78.000,00) without VAT, plus “**SIXTEEN THOUSAND AND THREE HUNDRED AND EIGHTY EUROS**” (€ 16.380,00) corresponding to VAT, which adds up to the amount of “**NINETY-FOUR THOUSAND AND THREE HUNDRED AND EIGHTY EUROS**” (€ 94.380,00).

As detailed below, the provision of services will consist of the shotgun sequencing of the genomic DNA extracted from approximately 1.200 samples.

Therefore, the maximum total budget for each unit of service to be carried out will be:

- **Unit price** for shotgun sequencing of genomic DNA using Illumina (PE 150) sequencer with a coverage per sample of 5Gb: **65,00 euros (VAT excluded)** (\*)
- Approximate total units: **1.200**

**(\*) Price that the tenderer, will be able to improve in the ECONOMIC OFFER.**

The maximum total budget is financed in the following way:

- For the Project PID2023-147387OB-I00, expenditure of “THIRTY-TWO THOUSAND EUROS” (€ 32.000,00), VAT excluded.
- For unrestricted accounts, expenditure of “FOURTY-SIX THOUSAND EUROS” (€ 46.000,00), VAT excluded.

The estimated value for this tender is “**SEVENTY-EIGHT THOUSAND EUROS**” (€ **78.000,00**) without VAT, plus “SIXTEEN THOUSAND AND THREE HUNDRED AND EIGHTY EUROS” (€ 16.380,00) corresponding to VAT, which adds up to the amount of “**NINETY-FOUR THOUSAND AND THREE HUNDRED AND EIGHTY EUROS**” (€ **94.380,00**).

Concept	Price (VAT not included)
Maximum budget	78.000,00 euros
Possible modifications	0,00 euros
Possible extensions	0,00 euros
<b>Total</b>	<b>78.000,00 euros</b>

The cost of the sequencing service was estimated based on the experience with previous projects and quotations received from several sequencing companies.

### **Clause 3. Duration of the contract.**

The duration of the service object of this tender will coincide with the validity of the aforementioned projects which is until **31 August 2028**.

The service will start on the day following the formalization of the contract.

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.

### **Clause 4. Description of the service and scope of the object of the contract.**

The project aims to characterize the intestinal microbiome composition and function. For this purpose, genomic DNA extracted from fecal samples will be provided to the sequencing platform for library preparation and DNA shotgun sequencing.

Technical specifications for the sequencing platform are the same for both lots:

- Illumina sequencing technologies, NovaSeq X with a minimum coverage equal to or greater than 5Gb/sample.

- The budget includes the following conditions:
  - Quality control of libraries (concentration, molarity and size)
  - Sequencing with NovaSeq X technology and 2x150bp reads
  - Quality control of final data
  - Delivery of a results report
  - Delivery of the obtained files (fastq) via hard disk for each batch of samples (in between 5 and 10 hard)
  - Quality analysis and delivery of genome alignment (BAM files)
  - Quality assurance with at least 85% of readings with a Q30
  - Free replacement of samples in case the readings obtained are insufficient (<5Gb) or do not meet the specified Q30 quality
  - Sending data using HDD and/or via FTP at no extra cost
  - Result data should be sent in a maximum batch of 200 samples.
  - The hard disk containing sequences should be less than 8 weeks from the reception of the samples for each batch of samples.
  - Does not include sample shipment.

#### **Clause 5. General Conditions.**

- No type of subcontracting will be accepted in the global sequencing process.
- The Company must present the accreditation certificate of compliance with the ISO 9001:2015 regulations or equivalent in **Envelope 1. Companies that do not certify it will be excluded.**
- Likewise, the Company being a "Illumina Certified Service Provider (CSPPro) for sequencing" would be preferred.

#### **Clause 6. Location and work time.**

The location and work time are the same for both Lots:

Location: The bidder will have to provide the service object of this tender in its own facilities, which must have the technology and personnel necessary.

Work time: The schedule will be determined by the center where the service is provided.

#### **Clause 7. Billing and payment.**

According to Law 25/2013, of December 27, 2013, on the promotion of electronic invoicing and the creation of the accounting registry of invoices in the Public Sector, in its Article 4, "All suppliers who have delivered goods or provided services to the public administration

*may issue and send electronic invoices. In any case, they will be obliged to use the electronic invoice and to submit it through the corresponding general entry point...".*

The awarded company will invoice electronically the services actually performed. The DIR3 codes to be able to issue the invoice are the following:

DIR3	ACCOUNTING OFFICE	DIR3	MANAGING BODY	DIR3	PROCESSING UNIT
<b>A09006467</b>	Fundació Hospital Universitari Vall d'Hebron-Institut de Recerca (HUVH IR)	<b>A09006467</b>	Fundació Hospital Universitari Vall d'Hebron-Institut de Recerca (HUVH IR)	<b>A09006467</b>	Fundació Hospital Universitari Vall d'Hebron-Institut de Recerca (HUVH IR)

The invoice will be issued for each batch of samples. In no case will the maximum amount be binding on the VHIR, but only the supply and service actually provided will be paid based on the prices finally awarded.

Each invoice issued must detail the period to which it corresponds, the breakdown/description of expenses by concept and the internal account that should be charged, as well as indicate the references "**L 2024-068**".

In the event that the issuance of the electronic invoice is not feasible for exceptional reasons, the contractor will invoice each service rendered through its corresponding invoice, which must be sent to the following e-mail address: [factures@vhir.org](mailto:factures@vhir.org)

The effective payment of the executed services will be performed by bank transfer, due 30 days / invoice date.

The contracting institution will make the payment of the supplies once they have been fully performed and once the invoice has been entered into its registry. In accordance with this paragraph, advance payment of part or all of the contract price is not contemplated.

In no case, the contractor will have the right to the revision of prices pertaining to any concept.

Therefore, the contracting entity will make the payment of the invoices using the currency conversion according to the common practices that the entity carries out in this type of case, so said payment will be made at the time of payment of the invoice.

The VHIR's fiscal data that must be included in the invoice are the following:

FUNDACIÓ HOSPITAL UNIVERSITARI VALL D'HEBRON - INSTITUT DE RECERCA  
 VAT: G-60594009  
 Passeig Vall d'Hebron, 119-129  
 08035 Barcelona

In the event that the invoice is not issued in accordance with the criteria established and referenced at the beginning of this clause, payment will not be made and the invoice will be withheld until the requested data is correctly indicated.

In the case of electronic invoicing, this will be rejected until the requested data is correctly indicated.

Once the contract ends, including any extensions that may be executed, VHIR will only accept invoices issued after the end of the contract as long as the period of execution of the same is within the term of the tender.

In the event that the invoice is issued after the end of the contract and in accordance with the above paragraph, VHIR will only pay invoices issued within two (2) months after the end of the contract.

The VHIR will only pay the successful bidder for the services actually provided, without, in any case, the VHIR being obliged to exhaust the estimated value of the contract/bid budget.

#### **Clause 8. Responsible for the contract.**

The person in charge of the contract will be Dr. Chaysavanh Manichanh, Head of the Microbiome Group of the Fundació Hospital Universitari Vall d'Hebron - Institut de Recerca and IP of the Project PID2023-147387OB-I00, who will basically have the functions of management and supervision of the contracts and the billing; follow-up, control and provide instructions for the good execution of the agreements; determine whether the performance conforms to the prescriptions established for its execution, reception of the order after its completion and comply with the obligations assumed by VHIR

#### **Clause 9. Confidentiality, Protection of personal data and Intellectual and Industrial Property**

Notwithstanding the provisions of the current legislation on intellectual property, protection of personal data and confidentiality, the companies awarded in this call for tenders will expressly commit to not giving the information and / or data provided by VHIR, or any use not provided in this bidding document, and / or expressly authorized by the Head of the Research Grants Office.

The company that awards the contract derived from this bidding will have to extend to their employees the obligations assumed by the awarded company, regarding confidentiality, intellectual property and protection of data.

All rights worldwide will be exclusively granted to VHIR for the maximum time established in applicable laws and / or international treaties for their exploitation through any format and / or exploitation modality, including the exploitation of any discovery, invention, creation, work, procedure, idea, technique, drawing, design, image or any other intellectual or industrial property right generated, raised or acquired as a consequence of the work carried out by the contracting company (hereinafter "Intellectual Property and / or Industrial"), which derives directly or indirectly from the relationship between VHIR and the company awarded in this tender procedure.

The awarded company must inform VHIR of any discovery, creation, invention, idea or any other element that constitutes or is likely to constitute a right of Industrial and / or Intellectual Property partially or totally developed during the contract period.

In the event that the awarded company discovers or develops any creation of intellectual or industrial property, it will be understood that the discovery or development constitutes confidential information of VHIR.

The awarded company must sign all those public and / or private documents that are necessary, in VHIR's discretion, to allow the accreditation of the ownership of VHIR or the proper protection of the aforementioned Intellectual Property and / or Industrial rights in favor of VHIR or of any designated third party.

The awarded company authorizes VHIR to transform, modify, publish, communicate and exploit the work resulting from the execution of the contract derived from this tender procedure.

**Clause 10. Allocation criteria**

The evaluation criteria are the same for all lots.

<b>1. Criterios evaluables mediante fórmulas automáticas</b>	<b>Maximum 70 points</b>
- Economic Offer	Maximum 56 points
- Automatic Evaluation Criteria	Maximum 14 points
<b>2. Criteria that can be assessed through value judgments</b>	<b>Maximum 30 points</b>

**10.1 Criteria that can be assessed through [automatic formula](#)..... up to 70 points**

The following criteria will be evaluated by automatic formula. The award criteria for assessing the contents of [Envelope 3](#) are as follows:

10.1.1 FINANCIAL OFFER.....up to 56 points

It will be valued automatically, in accordance with the following formula:

$$P_v = \left[ 1 - \left( \frac{O_v - O_m}{IL} \right) \times \left( \frac{1}{VP} \right) \right] \times P$$

- $P_v$  = Bid Score to Rate
- P = Economic criteria points
- $O_m$  = Best Offer
- $O_v$  = Offer to be Valued
- IL = Bid Amount
- VP = Weighting Value = 1

\* If after applying the automatic formula to a submitted bid, the resulting value is negative, you will be directly assigned zero (0) points of the economic part.

**10.1.2 AUTOMÁTIC EVALUATION CRITERIA** .....up to 14 points

The bidders shall mark the automatic evaluation criteria in Annex No. 1 of the PCAP, which they must provide in [Envelope 3](#), as well as the documentation accrediting this:

- Upgrade of the response from the reception of the samples (less than 8 weeks).....07 points
  - 7 to 8 weeks..... 01 point
  - 6 to 7 weeks..... 02 points
  - 5 to 6 weeks..... 03 points
  - 4 to 5 weeks..... 04 points
  - 3 to 4 weeks..... 05 points
  - 2 to 3 weeks..... 06 points
  - Less than 2 weeks..... 07 points
- Allow small batches of samples to be sent (maximum batch of 200 samples).....02 points
- Re-sequencing a sample with a min of 50% discount on the unit price offered, when the problem is due to sample characteristics themselves ..... 05 points

**10.2. Criteria that can be assessed through [value judgments](#)**..... up to 30 points.

The following criteria can be assessed through value judgments. The value will be done in compared with the tenders submitted. The highest score will be given to the offer that best fits the technical requirements set out in this document. All other bids will be scored proportionally by comparison. Subsequently, the various proposals evaluated in descending order will be sorted out, and the following formula will be applied to obtain the score,



$$P_{op} = P \times \frac{VT_{op}}{VT_{mv}}$$

$P_{op}$  = Score the offer to value

$P$  = Criteria score

$VT_{op}$  = Technical evaluation of the scored offer

$VT_{mv}$  = Technical evaluation of the best scored offer

The following criteria will be evaluated by value judgments. The award criteria for assessing the contents of **Envelope 2** are as follows:

### 10.2.1 Drafting of work proposal.....(up to 30 points)

The work proposal submitted by the bidders must include at least the following points:

- Detailed report on sample processing (DNA quality and quantity).....10 points  
The following should be specified: Number of these base pairs per samples, QC Results Summary, Agarose Gel Electrophoresis Results, and The Integrity test result picture.
- Quality of the sequences with Phred scores higher than Q30.....10 points
- Timelines for shipments of sequences.....10 points  
The shortest time possible to accomplish the service, without detracting from the quality of the service, will be positively valued. It must not include the upgrade of the response from the reception of the samples, as it is valued as an automatic criteria.

In accordance with Directive 1/2020 on the Application of Evaluation Formulas and Scoring of Economic and Technical Proposals, a threshold is established for each criterion to be evaluated and subsequently scored, which in no case may be less than 50% of the evaluation of each criterion.

There are two possible options regarding the function of this threshold, depending on whether none of the bids exceeds it (option 1) or at least one of the technical bids exceeds it (option 2).

- Option 1 - If the evaluation of the bids exceeds the minimum evaluation threshold, all of them obtain as a score the value obtained in the evaluation phase and no bid is excluded from the tender.
- Option 2- If any of the bids exceed the threshold, all the bids are scored and no bid is excluded from the scoring phase, nor from the tender.

Therefore, the minimum scores for each sub-criteria in order to apply the formula will be:

- Detailed report on sample processing (DNA quality and quantity) (5 points)
- Quality of the sequences with Phred scores higher than Q30 (5 points)
- Timelines for shipments of sequences (5 points)

A minimum total score of 17 points is required in the technical assessment so that the bidding companies can continue in the selection process and opt for the criteria that can be evaluated with automatic formulas. **Failure to obtain 17 points or more in the technical bid will be excluded from this tender procedure.**

Barcelona, November 11 of 2024.

**CONTRACTING ORGANISM**

**Mrs. Montserrat Gimenez Prous**

Manager

Fundació Hospital Universitari Vall Hebron– Institut de Recerca (VHIR)