

SPECIFIC AND TECHNICAL CONDITIONS

to contract a service to measure small non coding (snc) RNAs in 400-500 placenta samples of the BiSC study

(File 24/2021)

I. OBJECT

The present document (the "Pliego") to contract a service to measure small non coding (snc) RNAs in 400-500 placenta samples of the BiSC study.

All the technical specifications contained in this document are considered to be part of the minimum requirements and do not exclude any other needs for compliance with the purpose of the service contracted.

II. CONTENT OF THE WORK

Scope of work

ISGlobal – Barcelona Institute for Global Health is a research centre in international health whose ultimate goal is to help close the gaps in health disparities between and within different regions of the world. For this, we leverage on knowledge generation (research), transmission (training), and application (policy and global development).

Children's health is considered a priority at the international level—and also at ISGlobal. Our Childhood and Environment programme focuses on evaluating the effects of environmental pollutants on children's health, with particular emphasis on exposure during pregnancy and the postnatal period.

In this context, placenta is a key organ for fetal development and later health. We hypothesize that exposure to environmental insults during pregnancy might affect placental small non coding (snc) RNA levels and this might impair placental function and in turn affect fetal development.

Thus, ISGlobal is looking for a contract research organization (CRO) to measure small non coding (snc) RNAs in 400-500 placenta samples of the Barcelona Life Study Cohort (BiSC).

Key methodological details:

ISGlobal:

ISGlobal will provide 1 ug of RNA of each placenta sample at a concentration of 100-200 ng/ul. Samples will be randomized in batches of 20 samples (1 batch will be sent every 1-2 weeks to the company / core facility). Together with the samples, we will provide information on the RNA integrity number (RIN) measured by ISGlobal researchers in a Bioanalyzer equipment.

Company / core facility (CRO):

The company / core facility will have to:

- 1) Prepare the sncRNA libraries with the kit NEBNext® Small RNA Library Prep Set for Illumina® in batches of 20 samples (or similar).
- 2) Quantify the libraries with qPCR (KAPA Library Quantification Kit or similar).
- 3) Create equimolar pools of 40 libraries (or similar).
- 4) Select size of the pools with NOVEX 6% polyacrylamide gels and cutting bands using blue light to visualize material (or similar equipment): insert size from 145 to 180bp (standard selection RNAs of 17-52 nucleotides).
- 5) Sequence each pool in a lane of an Illumina HiSeq2500 or equivalent equipment to achieve at least 5 million reads of 50 nucleotides single end per sample.
- 6) Make a basic quality control of the data.

The company / core facility will provide to ISGlobal:

- 1) Raw data in the format of FASTQ files
- 2) Preliminary quality control of the data
- 3) Leftover of the RNA samples

Samples will have to be analyzed since May 2021 to December 2021.

III. PERSON RESPONSIBLE FOR THE CONTRACT

ISGlobal will appoint a person responsible for relations with the CRO (the "Contract Responsible"), who will coordinate with the staff of the entity and who will channel communications between the two parties.

IV. MANAGEMENT OF WORK AND QUALITY CONTROL

ISGlobal and the CRO project coordinator will establish by common agreement a calendar of communications that will consist of periodically progress calls/emails to discuss:

- shipment of BiSC samples to the CRO
- quality control of sample preparation of each batch by the CRO
- quality control of sequencing results of each batch by the CRO

Regardless of these scheduled calls, the Contract Responsible and the project management team may meet at any time if any of the two parties considers it appropriate, depending on the progress of the work hired. At any meeting the

responsible person may choose to bring additional participants from ISGlobal if considered convenient.

V. REQUIRED QUALIFICATIONS

The CRO has to be a genomics company / core facility with proved solvency.

VI. PERIOD OF EXECUTION AND DELIVERY OF THE REPORT

The execution of the work will be carried out through May to December 2021.

VII. ESSENTIAL CONTRACTUAL OBLIGATIONS

The following will be considered as essential obligations of the successful bidder:

1. adequacy to the methodological needs of the project (indicated above)
2. adequacy of the timings of the project (indicated above)

VIII. CONTRACT PERIOD

The duration of the contract will be of until all samples are processed, which is planned for December 2021.

The estimated start date of the contract is May 1st, 2021.

IX. BUDGET, PRICE AND ESTIMATED VALUE OF THE CONTRACT

The CRO will provide a quotation per sample to ISGlobal for the service indicated in this contract. The final number of samples will be defined based on the quotation and will be from 400 to 500.

Will select the most appropriate CRO by considering the following criteria:

- adequacy to the needs of the project
- cost per sample
- timings of processing
- solvency of the company / core facility

X. ADVERTISING

The present contract will be published by announcement in the Contracting Profile of the entity on the website: www.isglobal.org

XI. PLACE AND DATE OF SUBMISSION OF PROPOSALS

The economic proposals must be submitted by email to the address licitaciones@isglobal.org

The deadline for submitting proposals will end on 25th April 2021.

XII. LEGAL SYSTEM OF THE CONTRACT

The contract is considered a private contract and is subject to private law, ruling by this Schedule, by the contract and documentation attached, and in everything not provided by the applicable civil and commercial legislation.

XIII. EXPENDIENT OF RECRUITMENT, AWARD PROCEDURE OF THE CONTRACT AND DOCUMENTATION TO BE PROVIDED TENDERS

The contracting of the reference services will be awarded by the procedure envisaged in Section IX of the Internal Contracting Instructions of the entity. From the day of publication of the tender notice, interested companies can obtain the necessary documentation to prepare their proposals through the contractor's profile on the website www.isglobal.org.

XIV. PAYMENT METHOD

The CRO will be providing periodically invoices indicating concept and number of samples processed. Payment will always be made under invoice and 30 days invoice date by bank transfer.

Barcelona, March 31th, 2021