**SPECIFIC AND TECHNICAL CONDITIONS FOR**

**Genome-wide genotyping of BISC mother and child DNA samples with the Illumina GSA array

(File EXP-03-2022)**
**I. OBJECT**

The present document (the "Pliego") to contract a service for genome-wide genotyping of BISC mother and child DNA samples with the Illumina GSA array (maximum number of samples 2000).

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 and genetics on children’s health.

Children’s health outcomes are considered complex traits determined by both environmental and genetic factors. Common genetic polymorphisms can be measured through genome-wide genotyping arrays.

Thus, ISGlobal is looking for a contract research organization (CRO) to measure genome-wide common polymorphisms using the Illumina GSA array in <2000 cord blood, maternal blood or placenta DNA samples of the Barcelona Life Study Cohort (BiSC).

This project has been funded by Instituto de Salud Carlos III through the project "PI20/01116" (Co-funded by European Regional Development Fund “A way to make Europe”)

**Key methodological details:**

ISGlobal:

* ISGlobal will provide a maximum of 1 ug of DNA of each sample. DNA samples for maternal blood, cord blood and placenta will be sent in separate plates.

The company / core facility (CRO) will have to:

1. Quantify the samples sent by ISGlobal with Picogreen.
2. Plate the required amount of DNA for each sample and randomize them as indicated by ISGlobal in the working plates.
3. Genotype the samples with the Illumina GSA array.
4. Include control samples to ensure the correct genotyping.
5. Make a basic quality control of the data.

The company / core facility will provide to ISGlobal:

1. Raw data in the format of IDAT files
2. Genome-wide genotypes in GenomeStudio format.
3. Genome-wide genotypes in PLINK format.
4. Preliminary quality control report of the data
5. Leftover of the DNA samples

**III. PERSON RESPONSIBLE FOR THE CONTRACT (If Applicable)**

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
* report on quantification and randomization of the samples
* report on genome-wide genotyping of the first batches to detect any potential problem

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 in 3 months since samples arrive at the CRO.

**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 until all samples are processed.

The estimated start date of the contract is March 1st, 2022.

**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 1600 to 2000.

We will select the most appropriate CRO by considering the following criteria:

1. adequacy to the needs of the project
2. cost per sample
3. timings of processing
4. 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](http://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 29th February 2022.

**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, January 27th, 2022