

REQUEST FOR PROPOSALS

TECHNICAL AND SPECIFIC TERMS AND CONDITIONS FOR THE PROCUREMENT OF SERUM ANALYSIS SERVICES FOR PEDIATRIC PATIENTS WITH OBESITY UNDER THE EXOMAIR PROJECT

(FILE NUM. 34-2026)

I. Object

The purpose of this Request for Proposals (RFP) is to invite entities to submit proposals for contracting a laboratory to conduct the characterization of the chemical exposome in serum through an integrated workflow of targeted quantitative analysis of per- and polyfluoroalkyl substances (PFAS) and non-targeted analysis (NTA) screening in negative electrospray ionization mode (ESI-) using liquid chromatography coupled with high-resolution mass spectrometry (LC-HRMS), within the framework of the project "Towards Precision Medicine: Exposome and Omics analysis using eXplainable Artificial Intelligence to study their impact on lifespan Obesity, Insulin Resistance and Metabolic health. EXOMAIR" (Grant Code: PI23/01032), funded by the Instituto de Salud Carlos III.



All technical specifications contained in this document are considered minimum requirements and do not exclude any other necessary requirements to fulfill the scope of the contracted service.

II. Scope

Background

The EXOMAIR project (PI23/01032), funded by the Instituto de Salud Carlos III, aims to evaluate the effect of the exposome on cardiometabolic health trajectories and, in particular, on the development of insulin resistance in prospective cohorts of children

and adolescents with obesity. To achieve this, it is necessary to characterize the internal chemical exposome of participants using serum samples. A central part of this characterization is determining exposure to per- and polyfluoroalkyl substances (PFAS), combined with a broad-spectrum non-targeted analysis (NTA) screening to expand the coverage of the chemical exposome beyond target compounds. The samples originate from two Spanish regions with distinct exposure profiles (Santiago de Compostela and Zaragoza), requiring a sensitive, quantitative analytical method for PFAS with discovery capabilities.

Object of the procurement

ISGlobal is seeking a laboratory to analyze 532 serum samples from a pediatric cohort with obesity, using an integrated workflow of targeted and non-targeted chemical exposomics for broad profiling of environmental chemical exposures. The service must meet the following minimum technical specifications:

- I. Sample preparation performed in a cleanroom filtered by HEPA with positive pressure.
- II. Instrumental analysis by liquid chromatography coupled with ultra-high-resolution mass spectrometry (LC-HRMS) or equivalent technology, with acquisition capability in full-scan MS1 mode at a resolution equal to or higher than 120,000 FWHM (values referenced to m/z 200) and parallel data-independent acquisition (DIA) MS/MS at a resolution equal to or higher than 30,000 FWHM.
- III. Targeted quantitative analysis of a validated panel of per- and polyfluoroalkyl substances (PFAS) (e.g., PFOA, PFOS, PFNA, PFHxS, PFDA, PFUnDA), reported as concentrations (ng/mL).
- IV. Integrated non-targeted screening (NTA) in negative ionization mode (ESI⁻), with xenobiotic annotation (with confidence levels), covering organic contaminants, endocrine disruptors, pesticides, pharmaceuticals, personal care product ingredients, industrial chemicals, and dietary/environmental exposure markers.
- V. Delivery of the final data matrix (PFAS concentrations and annotated xenobiotics/features table from NTA), along with quality control and quality assurance documentation.

The awarded contractor must deliver the following deliverables:

- **Raw Data:** Raw data files generated by the analysis of project samples, in the native format corresponding to the LC-HRMS platform used.
- **Quantified Data:** Structured database including the concentration of quantified or semi-quantified chemical compounds in the 532 serum samples.
- **Technical Data:** Complete metadata of laboratory processing, including information on freeze-drying technical batches, LC-HRMS analytical batches, acquisition mode, injection order, etc.
- **Methodological Report:** Detailed technical document describing sample preparation procedures, applied analytical methods including validation results (recovery, limits of quantification and detection, matrix effect, etc.), implemented quality controls, and tools and databases used.

Evaluation of proposals will be conducted following the requirements set out in ANNEX

I. Bidders must submit their financial proposal exclusively by completing the format in ANNEX II.

III. Contract Responsible

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

IV. Management of work and quality control

ISGlobal and the laboratory coordinator will mutually establish a communication schedule consisting of biweekly or monthly progress calls.

Regardless of these scheduled calls, the Contract Manager and the project management team may meet at any time if either party deems it appropriate based on the progress of the contracted work. In any meeting, the Contract Manager may choose to bring additional ISGlobal participants if deemed suitable. The selected provider will submit

monthly reports. Upon completion of the analysis, the company must deliver the results as specified in Section II.

V. Required qualifications

To be considered, bidding companies must mandatorily demonstrate that the Coordinating Manager and the assigned center meet the following requirements:

- **Qualifications and Experience:** The Coordinating Manager of the laboratory must hold a Ph.D. degree (specializing in Chemical, Pharmaceutical, Biological Sciences, or equivalent) and demonstrate a minimum of 5 years of experience in LC-HRMS techniques.
- **Minimum Equipment:** Availability of a high-resolution liquid chromatography-mass spectrometry (LC-HRMS) system capable of operating at a resolution of 120,000 FWHM (for $m/z = 200$) and with a mass accuracy between 1 and 2 ppm. Ownership of the equipment by the laboratory or affiliated institution must be certified.
- Demonstrated experience in targeted quantitative analysis of PFAS in serum or plasma, with a validated panel.
- Adequate analytical facilities to handle the requested volume of analyses.
- Demonstrated capability for integrated non-targeted screening (NTA) in ESI-mode with xenobiotic annotation.
- Preferably, prior experience in large population cohorts (>500 samples) in chemical exposomics.
- Preferably, participation in quality assurance programs and interlaboratory proficiency testing for PFAS determination.

VI. Period of execution and delivery of reports

Work execution will take place over a 12-month period.

VII. Essential contractual obligations

The following shall be considered essential obligations of the selected provider:

- Guarantee that all samples are kept frozen in a secure location, and manage the return of remaining sample aliquots if required.
- Application of the methodology specified in Section II.
- Quarterly progress reporting on work status and immediate notification of any issues arising during analysis.
- Delivery of final results and related documentation as set out in Section II.
- Subcontracting is strictly prohibited.

VIII. Duration and start date

The duration of the contract will be 12 months.

The estimated start date of the contract is October 1, 2026.

IX. Estimated value

The contract budget is fixed at a maximum amount of EUR 79,800.00, excluding taxes. Under no circumstances will the amount exceed this budget. Consequently, for non-exempt providers, the final contract price will be the budget amount plus the corresponding Value Added Tax (VAT)

X. Method of payment

The laboratory will periodically provide reports on the number of samples analyzed. Payment will always be made against invoices, with a payment term of 30 days from the invoice issuance date, via bank transfer:

- First Payment (30% of total contract amount): Payable upon completion of instrumental analysis of the first batch corresponding to 50% of clinical samples

(~260 serum samples) and formal submission of a technical progress report certifying proper preparation, randomization, and successful quality control of said batch.

- Second Payment (40% of total contract amount): Payable once instrumental analysis of 100% of samples (all 532 serum samples) is completed, and following submission and verification of raw data files (in native LC-HRMS platform format) along with the structured database of quantified or semi-quantified concentrations.
- Third and Final Payment (30% of total contract amount): Payable upon final delivery, technical review, and formal approval by ISGlobal's Contract Manager of the final data matrix (PFAS concentrations and annotated NTA feature/xenobiotic table), together with the Final Methodological Report (procedures, validation, and implemented quality controls).

XI. Publicity

The present Request for Proposals document will be published in the Suppliers section of the contracting entity's website: <https://www.isglobal.org/en/contrataciones>.

XII. Procurement procedure:

The selection procedure will be made complying with the internal procurement regulations of the contracting entity, as provided in sections VIII and IX of the Procurement Manual.

XIII. Nature of the contract

This contract is considered a private contract and is subject to private law, governed by the contract and attached documentation, and by the applicable civil and commercial legislation.

XIV. Submission of proposals

Interested applicants are invited to submit a comprehensive proposal, addressing the needs described in the Request for Proposals document, to the following e-mail address:

contrataciones@isglobal.org.

Proposals must be sent in one single consolidated document in PDF format.

The deadline for proposal submission is October 7, 2026, at 15:00 CEST.

Barcelona, September 21, 2026
Procurement Unit

ANNEX I.- SELECTION AND EVALUATION CRITERIA

I. TECHNICAL SELECTION CRITERIA

For the financial proposal to be considered in the provider selection process, applicants must meet the following criteria:

CRT1 Qualification: Ph.D. degree (in Chemistry, Pharmacy, Biology, or related fields).

CRT2 Experience: Minimum of 5 years of experience in liquid chromatography coupled with high-resolution mass spectrometry (LC-HRMS) for the Coordinating Manager.

CRT3 Capacity: Minimum of 3 years of demonstrated experience in targeted quantitative analysis of PFAS in serum or plasma, with a validated panel, for the Coordinating Manager.

CRT4 Experience: Demonstrated capability in integrated non-targeted screening (NTA) in ESI– mode with xenobiotic annotation for the Coordinating Manager.

CRT5 Equipment: Availability of at least one LC-HRMS system achieving a resolution of 120,000 FWHM (at $m/z = 200$) and a mass accuracy of 1–2 ppm, owned by the laboratory or affiliated institution of the Coordinating Manager.

Required documentation for verification:

CRT1 Qualification: Copy of Ph.D. diploma/certificate.

CRT2 Experience: Detailed Curriculum Vitae of the Coordinating Manager reflecting 5 years of specific experience in LC-HRMS.

CRT3 Experience: Submit a list of PFAS measurement services over the last 3 years using Annex III (at least one service per year).

CRT4 Experience: Provide validation protocol and results of its application carried out during the last 3 years (at least one service per year).

CRT5 Equipment: Provide a responsible declaration specifying make, model, analyzer type, and maximum resolution, certifying compliance with required resolution criteria, signed by executive management of the Coordinating Manager's affiliated institution.

Received proposals will be evaluated and assigned up to 100 points based on compliance with ISGlobal's requirements:

II. OBJECTIVE EVALUATION CRITERIA (up to 100 points)

a. PROPOSAL PRICE (up to 80 points)

Financial proposals will be evaluated using the following formula:

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

Where:

O = Proposal being evaluated

O_m = Lowest (best) financial proposal

IL = Tender budget / Tender limit

VP = Weighting factor, set at 2

P = Maximum score for the financial criterion

b. EXPERIENCE-BASED CRITERIA (up to 20 points)

i. Technical Experience of the Coordinating Manager (up to 5 points)

Application of wide-scope target screening protocols for simultaneous monitoring of more than 400 chemical compounds across different matrices using LC-HRMS instrumentation will be evaluated.

5 points: Five or more scientific publications

4 points: Four scientific publications

3 points: Three scientific publications

2 points: Two scientific publications

1 point: One scientific publication

Documentation to be submitted for scoring verification: Scientific publications from the last 5 years validating or applying wide-scope target screening protocols for simultaneous monitoring of over 400 compounds in various matrices using LC-HRMS instrumentation.

ii. Participation in quality assurance programs and interlaboratory proficiency testing for PFAS determination (up to 5 points)

PFAS measurement services conducted over the last 3 years reported in Annex III will be evaluated, alongside metrological traceability protocols for measuring and quantifying PFAS in water, soil, or other matrices.

5 points: Eight or more PFAS analytical reports

4 points: Seven PFAS analytical reports

3 points: Six PFAS analytical reports

2 points: Five PFAS analytical reports

1 point: Four PFAS analytical reports

Documentation to be submitted for scoring verification: Annex III detailing services, client, sample count, sample type, supporting documentation (contract, invoice or certificate of satisfactory execution), and metrological traceability protocol for measuring and quantifying PFAS.

iii. Prior Experience in Large Population Cohorts (up to 10 points)

Experience in analyzing chemical exposomics with over 500 samples (>500 samples) in the last 5 years will be evaluated.

10 points: Four or more projects

7.5 points: Three projects

5 points: Two projects

2.5 points: One project

Documentation to be submitted for scoring verification: Annex III detailing services, client, sample count, sample type, supporting documentation (contract, invoice or certificate of satisfactory execution), and metrological traceability protocol for measuring and quantifying PFAS.

ANNEX II.- FINANCIAL PROPOSAL**BIDDER INFORMATION**

Company Name / Legal Entity:

Tax ID (NIF / VAT No.):

Coordinating Manager (Ph.D.):

Email & Phone:

We hereby submit our financial proposal as follows:

Service Description	Number of Samples	Price per Sample (€)	Total (Excl. VAT) (€)
Serum analysis of pediatric patients with obesity	532		

Note: The price per sample includes all services listed in the “Object of the procurement” section of this document, as well as any direct or indirect expenses necessary for the proper performance of the service.

Signature of Legal Representative:

Done at [City], on [Day] [Month] 2026.

ANNEX III.- TEMPLATE FOR RESPONSIBLE DECLARATION

Mr./Ms. [Representative's Name], holder of ID No. [Number], representing [Company Name], with Tax ID [Number], for the purpose of participating in the tender for serum analysis services of pediatric patients with obesity, hereby declares under their responsibility that the company has performed the following measurement services over the past 3 years following the attached protocol, supported by the attached documentation (contract, invoice or certificate of satisfactory execution):

PFAS Measurement Service

Client:

Date of services:

Number of samples analyzed:

Sample type:

Supporting document: [contract, invoice or certificate of satisfactory execution]

Client:

Date of services:

Number of samples analyzed:

Sample type:

Supporting document: [contract, invoice or certificate of satisfactory execution]

Client:

Date of services:

Number of samples analyzed:

Sample type:

Supporting document: [contract, invoice or certificate of satisfactory execution]

Signature of Legal Representative:

Done at [City], on [Day] [Month] 2026.