Posting Date: July 5, 2024

Closing Date: July 15, 2024 11:30 a.m.

ET Reference Number: 24-038471

To: NCI Bid Board

From: Sharon Coles-Calloway
NCI DCEG Purchasing Agent
coless@mail.nih.gov

Subject: NCI Bid Board Posting – Exposure to solid fuel burning and transcriptomic changes in the nasal epithelium in never smoking women in Guatemala

The National Cancer Institute Division of Cancer Epidemiology and Genetics Occupational and Environmental Epidemiology Branch (NCI/DCEG/OEEB) conducts studies in the United States and abroad to identify and evaluate environmental and workplace exposures that may be associated with cancer risk. OEEB's mission is to combine epidemiology, quantitative exposure assessment, and molecular components into multi-disciplinary studies to provide insight into cancer etiology, chemical carcinogenesis, and mechanisms of action. The main research areas include Industrial and Occupational Exposures, Environmental Exposures, and Exposure Assessment Methods.

OEEB will investigate mRNA expression among never-smoking women exposed to smoky wood in Guatemala, the contractor will conduct mRNA expression array analyses on 16 nasal swab samples from subjects in Guatemala. This analysis will benefit the U.S. government and the public by providing new information about the mRNA expression associated with exposure to solid fuel combustion.

The National Cancer Institute plans to purchase the lab testing services from Boston University, Boston, MA. This is not a request for competitive quotation. However, if any interested party believes it can meet the attached requirements, it may submit a statement of capabilities. The capability statement must be in writing and must contain information and material in sufficient detail to allow NCI to determine is the party can fully meet this requirement. The capability statement must be received in the contracting office by 11:30 AM on July 15, 2024, ET. A determination by the Government not to compete this requirement based upon responses to this notice is solely within the discretion of the Government. Information received will be considered solely for the purpose of determining whether to conduct a competitive procurement.

Sole Source Justification:

Boston University is the only institute in the world developed a protocol to noninvasively collect and preserve samples from the nasal airways and month, has successfully analyzed whole genome mRNA expression array in these types of samples, and has shown that mRNA expression patterns in these types of tissue are similar to what is observed in lung tissue. Boston University is at the forefront of this field and has numerous publications evaluating the associations between gene expression and pulmonary effects using nasal swabs as surrogate tissue. Boston University has applied this methodology to the analysis of nasal swabs collected from

populations exposed to other air exposures that affect the lung, including tobacco, diesel exhaust, coal combustion. It is critical that samples from this smoky wood study are analyzed in the same lab to ensure scientific comparability of the results from previous contracts NCI has to this lab that analyzed diesel exhaust, coal combustion, nano particles, and e-waste (HHSN261201700630P, HHSN261201300432P, 75N91022P00843). We did extensive literature searches (i.e. PubMed, Scopus), and discussed with scientists at national and international meetings. Boston University is identified as the only contractor that can provide this service. There is no other contractor able to provide this service.

Attached Documents:
SF18
Statement of Work
FAR Clause 52.213-4 Simplified Acquisitions Terms and Conditions (AUG 2019) is applicable and available in full text upon request
FAR Clause 52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment

REQUEST FOR QUOTATION
(THIS IS NOT AN ORDER)

THIS RFQ [X] IS [ ] IS NOT A SMALL BUSINESS SET-ASIDE

PAGE 1 OF PAGES 1

1. REQUEST NO.	2. DATE ISSUED	3. REQUISITION/PURCHASE REQUEST NO.	4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1	RATING
	7/3/2024	24-0384471		

5a. ISSUED BY	6. DELIVER BY *(Date)*
NIH/NCI-CCR P-ARC	12 months from receipt of order

5b. FOR INFORMATION CALL *(NO COLLECT CALLS)*			7. DELIVERY
NAME	TELEPHONE NUMBER		[X] FOB DESTINATION [ ] OTHER *(See Schedule)*
	AREA CODE	NUMBER	9. DESTINATION
Sharon Coles-Calloway, Purchasing Agent	240	276-7348	a. NAME OF CONSIGNEE

8. TO:

a. NAME	b. COMPANY	b. STREET ADDRESS
c. STREET ADDRESS		c. CITY
d.. CITY	e.. STATE / f.. ZIP CODE	d.. STATE / e. ZIP CODE

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5a ON OR BEFORE CLOSE OF BUSINESS *(Date)*

7/13/2024 11:30 ET

IMPORTANT: This is a request for information, and quotations furnished are not offers. If you are unable to quote, please indicate on this form and return it to the address in Block 5a. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications attached to this Request for Quotations must be completed by the quoter.

11. SCHEDULE *(Include applicable Federal, State and local taxes)*

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
001	Data sample extraction, sequencing, and QC on samples from the GWAS Replication-Lung Cancer study Notice of Intent: If submitting a capability statement, please e-mail only 1 copy of the technical capability statement to Sharon Coles-Calloway at coless@mail.nih.gov See attached statement of need. This will be awarded as a Firm-Fixed Price Contract.	1	ea	$_____	$_____

12. DISCOUNT FOR PROMPT PAYMENT	a. 10 CALENDAR DAYS (%)	b. 20 CALENDAR DAYS (%)	c. 30 CALENDAR DAYS (%)	d.. CALENDAR DAYS NUMBER	d.. CALENDAR DAYS PERCENTAGE

NOTE: Additional provisions and representations [ ] are [ ] are not attached.

13. NAME AND ADDRESS OF QUOTER	14. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION	15. DATE OF QUOTATION
a. NAME OF QUOTER		
b. STREET ADDRESS	16. SIGNER	
	a. NAME *(Type or print)*	b. TELEPHONE AREA CODE
c. COUNTY		
d. CITY / **e. STATE** / **f. ZIP CODE**	c. TITLE *(Type or print)*	NUMBER

STATEMENT OF WORK (SOW)

1.0 TITLE

Integrative analysis of genomic, molecular, cellular, and biochemical measures to inform cancer etiology

2.0 BACKGROUND

Complex diseases, especially cancers, result from complex interactions between genetic, molecular, cellular, and biochemical outcomes, as well as a multitude of environmental and lifestyle risk factors. Although several of these factors are not modifiable directly, knowledge of the intricate interplay between such factors can be informative to understand the genetic architecture of cancers. Evidence generated from previous genetic and epidemiologic studies have enhanced our understanding of the etiology and risk of different types and subtypes of cancers. Further, recent studies have underscored the value of joint analysis techniques integrating genetic (e.g., germline variation, somatic mutation, telomere length), molecular (e.g., gene expression, chromatin organization, methylation patterns), cellular (e.g., diagnostic/pathologic images, cell counts/ratios, microbiome), and biochemical (e.g., serum protein levels, metabolites) outcomes to provide important insights into cancer incidence and molecular characteristics. The downstream value of such analysis not only lies in improved understanding of overall disease architecture but also in identifying potential drug targets and developing intervention strategies. Additionally, joint analysis of intermediate molecular outcomes presents a unique opportunity to understand their interaction with environment, the microbiome and lifestyle factors in context of cancer etiology. Thus, to understand the overall landscape of the etiology of cancers and how cancer subtypes are related it is imperative to analyze data from large cohort studies with detailed information on genetic variation, molecular outcomes, cellular measures and various environmental exposures and life-style risk factors. The UK Biobank cohort is a study that satisfies these criteria and uniquely has rich covariate data on genomic, molecular, cellular and biochemical measures on a large set of approximately 500,000 participants.

2.1 OBJECTIVE

The purpose of this procurement is to extend access to data and supporting documentation from the UK Biobank that we will use to perform several independent but complementary analyses:

1. Using data individual level UK Biobank genetic, health, and cancer records, we will identify networks of intermediate genetic, molecular, cellular, or biochemical outcomes that are regulated by common cancer-related genetic variants. We will construct partitioned polygenic risk scores to enhance interpretability of the scores by mapping them to biological mechanisms. Further, by integrating information from publicly available molecular datasets as well as internally generated data we will attempt to improve the understanding of the impact of cancer-related genetic variations on the diverse intermediate genetic, molecular, cellular, and biochemical outcomes. Additionally, we will study the interactions of genetic variation, exposures, lifestyle, and behavioral factors with the cancer-related molecular outcomes to investigate potential actionable interventions.

2. We will evaluate the impact of rare variants on genetic, molecular, cellular, and biochemical outcomes and process in context of different cancers, using genetic and health record data. Furthermore, we will use statistical tests to gain in depth understanding of the contribution of somatic and germline variations to the regulation of such intermediate outcomes.

3. We will develop novel machine learning algorithms to extract analytic features from medical record images (e.g., diagnostic and pathologic imaging) and evaluate the how the effects of genetic variants are mediated through such imaging features and their interactions with existing genetic, molecular, cellular and biochemical processes.

4. Currently the statistical power to identify genetic associations for cancers with low number of cases is limited. We will evaluate possible improvements in power by sharing information across cosegregating cancers to identify relationships with genetic, molecular, cellular, and biochemical processes important for etiology of cancers with lower incidence rates.

3.0 SCOPE

Our research will provide improved interpretation and insights on how genetic variation impacts intermediate cellular states and biochemical networks to produce cancer. We will investigate how intermediate biochemical networks interact with the environment, exposure, and modifiable risk factors in the context of cancer, providing useful downstream targets for therapies and interventions. We will estimate population parameters (e.g., mortality or disease reduction) for evaluating effectiveness of interventions on modifiable risk factors in different population strata, defined through nonmodifiable risk factors. Contractor responsibilities are to provide access to UK Biobank data fields and supporting documentation to enable these analyses to be carried out on the UK Biobank Research Analysis Platform.

4.0 CONTRACT REQUIREMENTS/ AND PERSONNEL QUALIFICATIONS

The contractor (UK Biobank) shall in accordance with UK Biobank Application 92005, provide the requested data fields and records to Mitchell Machiela at NCI (DCEG/ITEB).

5.0 TYPE OF ORDER

This is a firm fixed price purchase order.

6.0 PERIOD OF PERFORMANCE

The period of performance shall be for 36 months from date of award.

7.0 PLACE OF PERFORMANCE

All UK Biobank data and supporting documentation will be accessed online through the Research Analysis Platform. The research team will be able to connect to and access the system online.

8.0 REPORT(S)/DELIVERABLES AND DELIVERY SCHEDULE

Access to UK Biobank data as part of application 21743 shall be extended for 36 months.

9.0 PAYMENT

STATEMENT OF WORK (SOW)

Payment shall be made _*one time in full.* Payment authorization requires submission and approval of invoices to the COR and NIH OFM, in accordance with the attached payment provisions listed below:

The following clause is applicable to all Purchase Orders, Task or Delivery Orders, and Blanket Purchase Agreement (BPA) Calls: PROMPT PAYMENT (JUL 2013) FAR 52.232-25. Highlights of this clause and NIH implementation requirements follow:

I. Invoice Requirements

A. An invoice is the Contractor's bill or written request for payment under the contract for supplies delivered or services performed. A proper invoice is an "Original" which must include the items listed in subdivisions 1 through 12, below, in addition to the requirements of FAR 32.9. If the invoice does not comply with these requirements, the Contractor will be notified of the defect within 7 days after the date the designated billing office received the invoice (3 days for meat, meat food products, or fish, and 5 days for perishable agricultural commodities, dairy products, edible fats, or oils) with a statement of the reasons why it is not a proper invoice. (See exceptions under II., below.) Untimely notification will be considered in the computation of any interest penalty owed the Contractor.

1. Vendor/Contractor: Name, Address, Point of Contact for the invoice (Name, title, telephonenumber, e-mail and mailing address of point of contact).
2. Remit-to address (Name and complete mailing address to send payment).
3. Remittance name must match exactly with name on original order/contract. If the Remittance name differs from the Legal Business Name, then both names must appear onthe invoice.
4. Invoice date.
5. Unique invoice #s for all invoices per vendor regardless of site.
6. NBS document number formats must be included for awards created in the NBS: ContractNumber; Purchase Order Number; Task or Delivery Order Number and Source Award Number (e.g., Indefinite Delivery Contract number; General Services Administration number); or, BPA Call Number and BPA Parent Award Number.
7. Unique Entity Identifier (UEI) which is in the System for Award Management (SAM) and replaces the Dun & Bradstreet Data Universal Numbering System (DUNS) number.
8. Federal Taxpayer Identification Number (TIN). In those rare cases where a contractor does not have a UEI number or TIN, a Vendor Identification Number (VIN)must be referenced on the invoice. The VIN is the number that appears after the contractor’s name on the face page of the award document.
9. Identify that payment is to be made using a three-way match.
10. Description of supplies/services **that match** the description on the award, by line billed.*

11. Freight or delivery charge must be billed as shown on the award. If it is included in the itemprice do not bill it separately. If identified in the award as a separate line item, it must be billed separately.
12. Quantity, Unit of Measure, Unit Price, Extended Price of supplies delivered or servicesperformed, as applicable, and that **match** the line items specified in the award.*

NOTE: If your invoice must differ from the line items on the award, please contact the Contracting Officer before submitting the invoice. A modification to the order or contract may be needed before the invoice can be submitted and paid.

Shipping costs will be reimbursed only if authorized by the Contract/Purchase Order. If authorized, shipping costs must be itemized. Where shipping costs exceed $100, the invoice must be supported by a bill of lading or a paid carrier's receipt.

B. The Contractor shall submit invoices to the Department of Treasury's Invoice Processing Platform (IPP) at https://www.ipp.gov with a copy to the approving official, as directed below.

The Contractor shall submit a copy of the electronic invoice to the following Approving Official (Contracting Officer) and Contracting Officer's Representative:

Approving Official: Contracting Officer
Name- Email Address-

Contracting Officer's Representative
Name- Email Address-

II. Invoice Payment

A. Except as indicated in paragraph B., below, the due date for making invoice payments by the designated payment office shall be the later of the following two events:

1. The 30th day after the designated billing office has received a proper invoice.
2. The 30th day after Government acceptance of supplies delivered or services performed.

B. The due date for making invoice payments for meat and meat food products, perishable agricultural commodities, dairy products, and edible fats or oils, shall be in accordance with the Prompt Payment Act, as amended.

III. Interest Penalties

A. An interest penalty shall be paid automatically, if payment is not made by the due date and the conditions listed below are met, if applicable.

1. A proper invoice was received by the designated billing office.

2. A receiving report or other Government documentation authorizing payment was processed and there was no disagreement over quantity, quality, or contractor compliance with a term or condition.

3. In the case of a final invoice for any balance of funds due the contractor for supplies delivered or services performed, the amount was not subject to further settlement actions between the Government and the Contractor.

B. Determination of interest and penalties due will be made in accordance with the provisions of the Prompt Payment Act, as amended, the Contract Disputes Act, and regulations issued by the Office of Management and Budget.

IV. PROVIDING ACCELERATED PAYMENT TO SMALL BUSINESS SUBCONTRACTORS, FAR 52.232-40 (November 2021)

(a) Upon receipt of accelerated payments from the Government, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

(b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial products or commercial services.

(End of Clause)

V. HHSAR 352.232-71 Electronic Submission of Payment Requests (February 2, 2022)

(a) Definitions. As used in this clause—

Payment request means a bill, voucher, invoice, or request for contract financing payment with associated supporting documentation. The payment request must comply with the requirements identified in FAR 32.905(b), ‘‘Content of Invoices’’ and the applicable Payment clause included in this contract.

(b) Except as provided in paragraph (c) of this clause, the Contractor shall submit payment requests electronically using the Department of Treasury Invoice Processing Platform (IPP) or successor system. Information regarding IPP, including IPP Customer Support contact information, is available at www.ipp.gov or any successor site.

(c) The Contractor may submit payment requests using other than IPP only when the Contracting Officer authorizes alternate procedures in writing in accordance with HHS procedures.

(d) If alternate payment procedures are authorized, the Contractor shall include a copy of the Contracting Officer’s written authorization with each payment request.

(End of Clause)