Posting Date: January 12, 2021

Closing Date: January 22, 2021 10:30 a.m. ET

Reference Number: 21-012750

To: NCI Bid Board

From: Tanika Crossen
NCI P-ARC Program Analyst: crossent@nih.gov

Subject: NCI Bid Board Posting – Purchase of five (5) concurrent web-based scientific software licenses to enable NCI scientists to analyze and explore multivariate, large omics data.

NCI is poised to accelerate developments in cancer research through data science by empowering scientists and clinicians with the data and tools needed to drive their research. NCI embraces this charge and is committed to enhancing the data sharing and analysis infrastructure, creating a comprehensive data sharing vision and strategy, and strengthening the data science workforce for NCI and the cancer research community. This is done in collaboration across NCI's divisions, offices, and centers, and throughout the cancer research community.

CBIIT accelerates cancer research by empowering scientists and clinicians with the data and tools they need to drive their research. CBIIT partners with NCI programs and cancer researchers to meet the informatics, data, and information technology needs of the community today. With our partners, we envision the future of cancer research and how informatics, data science, and information technology will shape that future.

Sole Source Justification:

The Qlucore Omics Explorer software includes two new integrated tools that focus on facilitating the analysis of data by comparing how the experiment corresponds to public information and results. The GO browser allows users to search within any ontology; interesting results can then be exported to the variable window and used as a normal variable list. Gene Set Enrichment Analysis workbench (GSEA) provides a complete set of results for large data sets (132 x 50,000) with just three mouse clicks, and in less than 30 seconds – This is much faster and easier than any other available commercial software of this type. This functionality allows scientists to view all elements of a specific list in a dedicated color in all open plots. This is designed to aid the scientist in interpreting the combination of their own experiment against publically available information.

In the past many scientists have had to overcome the problem of working with identifiers for variables in public data being different from those used in their own experiments. This has made their work complicated and tedious when comparing information. The new Qlucore Omics Explorer aims to solve this problem by introducing the variable collapse function. The variable collapse function is used for data sets with multiple measurements for the same variable. A typical example is for gene expression microarrays where you measure several probes or features that match to one gene. Using the variable collapse you can either study data at gene level or probe/feature level.

In addition, the projection score system has been introduced, which provides the user with information on how well the visual representation actually represents the data. The projection score measures how informative a low-dimensional representation obtained by PCA is. It also provides explicit comparison of representations corresponding to different variable subsets. The software's unique capability lies in the interactive PCA tool that is extremely useful for clinical investigators wanting to find out which patient variables are important in separating outpatient groups.

Attached Documents:
SF18
Statement of Work
FAR Clause 52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment.

FAR Clause 52.213-4 Simplified Acquisitions Terms and Conditions (AUG 2019) is applicable and available in full text upon request

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
21-012750	1/12/2021			

5a. ISSUED BY

6. DELIVER BY *(Date)*

5b. FOR INFORMATION CALL *(NO COLLECT CALLS)*

NAME	TELEPHONE NUMBER	
	AREA CODE	NUMBER
Tanika Crossen	301	480-0602

7. DELIVERY [ ] FOB DESTINATION [ ] OTHER *(See Schedule)*

9. DESTINATION

a. NAME OF CONSIGNEE: NIH, NCI

8. TO:

a. NAME	b. COMPANY	b. STREET ADDRESS
	Qlucore	

c. STREET ADDRESS	c. CITY
	Bethesda

d.. CITY	e.. STATE	f.. ZIP CODE	d.. STATE	e. ZIP CODE
			MD	20892

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

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)
	Qlucore Omics Explore software; 5 academic floating licenses with NGS modules Contact: Tanika Crossen NIH, NCI 11400 Rockville Pike Rockwall I, Rm 762 Rockville, MD 20852-9163 301-480-0602 crossent@mail.nih.gov				

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 NEED (SON)

1.0 TITLE

Purchase of five (5) concurrent web-based scientific software licenses to enable NCI scientists to analyze and explore multivariate, large omics data.

2.0 BACKGROUND

The Center for Cancer Research (CCR) at the National Cancer Insitute requires a web-based, scientific software that allows their scientists embedded in over 240 basic, translational and clinical research labs, to easily analyze and explore their multivariate, large omics datasets.

3.0 TYPE OF ORDER

This is a Firm Fixed-Price Purchase Order.

4.0 SPECIAL ORDER REQUIREMENTS

4.1 PRODUCT FEATURES/SALIENT CHARACTERISTICS

The following salient characteristics are applicable to this acquisition:

- Software shall be web-based
- The software shall allow biologists to easily analyze and explore multivariate, large omics data without the need to become a statistical expert. This data shall be derived from gene expression experiments including RNA-seq, single cell RNA-seq, mRNA, microRNA and SNP microarrays, DNA methylation, metabolomics, proteomics and flow cytometry.
- The software shall use Python scripts to allow pattern recognition of omics data analyzed by projection scores using supervised and non-supervised methods.
- The software shall support multiple data formats including but not limited to, csv, bam, vcf, gtf, bed, fasta, cel, txt etc. The software shall also enable import of any processed data in matrix format and include the ability to import its annotation.
- The software shall allow users to easily visualize their data using dynamic and interactive 2-dimensional and 3-dimensional plots types, including but not limited to two-way PCA-to-heat map transitions, to check both the quality of the data and identify data structure or trends in order that help generate new hypothesis.
- The software shall allow novice users to easily perform statistical analysis of data, including but not limited to well-established methods like t-test, ANOVA, Tukey and regression analysis.
- The software shall also have an Application Programming Interface (API) that enables expert users to integrate their own R language-based statistical methods into the software to perform custom and advanced analysis.
- The software shall allow users to build their own analysis scripts to run the software using workflow templates to enable automation of repetitive tasks.
- The software shall allow users to build data classifiers and use those for predictions, including using machine learning to generate predictive models.
- The software should have additional capability, even if available as an additional line item cost, to include more in-depth Next Generation Sequencing (NGS) workflow. This should include the ability to perform a deeper analysis of NGS data, including the ability to compare data to reference genomes in order to identify point mutations and other sequence perturbations.

- The software shall include integration data from well-curated publicly available databases like GEO, TCGA, GO browser, integrated GSEA workbench to allow functional analysis of omics data.
- The software shall enable sharing of results and analysis by enabling users to share saved sessions and tracking and documentation of settings used with collaborators.

4.2 DELIVERY / INSTALLATION

Software licenses will be made available within 5 business from date of purchase. Vendor will work with designated NCI CBIIT (Center for Biomedical Informatics and Information Technology) Point of Contact (POC) to set up access.

CBIIT POC:
David Silver
NCI/OD/CBIIT/BOB
9609 Medical Center Dr.
Rockville, MD 20850
Ph# 240.276.7635

4.3 TRAINING

Support services shall be provided during normal hours of operation, Monday through Friday (9:00 AM to 5:00 PM EST), excluding Federal holidays found at https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/#url=2020. This requirement shall include two days of onsite training, to be coordinated with the NCI Contracting Officer's Representative (COR), and provided by an Original Equipment Manufacturer (OEM)–certified representative, at no additional cost to the Government.

52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment.

As prescribed in 4.2105(a), insert the following provision:

REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2019)

(a) Definitions. As used in this provision—

Covered telecommunications equipment or services, Critical technology, and Substantial or essential component have the meanings provided in clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Prohibition. Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractors are not prohibited from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) Representation. The Offeror represents that—

It [ ] will, [ ] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation.

(d) Disclosures. If the Offeror has responded affirmatively to the representation in paragraph (c) of this provision, the Offeror shall provide the following information as part of the offer—

(1) All covered telecommunications equipment and services offered (include brand; model number, such as original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable);

(2) Explanation of the proposed use of covered telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b) of this provision;

(3) For services, the entity providing the covered telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known); and

(4) For equipment, the entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)