

**Statement of Work  
Data Maintenance of DNA Sequence Library  
VA Palo Alto Health Care System**

**Section 1: General Information**

1.1 General: This is a non-personal services contract to provide Database Maintenance, Quality Control and Data Analysis Support for Public Health Reference Laboratory (PHRL) at the Veterans Affairs Palo Alto Health Care System. Within the PHRL is the focal point for Deoxyribonucleic Acid (DNA) testing and sampling. This process is conducted using DNA fragments stored and propagated in a population of micro-organisms through the process of molecular cloning. The results of the testing and sampling are stored within a unit known as the DNA Sequence Library (DNA SL).

Crucial to the testing process is for users to have readily access to the DNA SL database via Data Access Platforms and Applications. Vendors are required to ensure algorithms and coding within the Data Access Platforms and Applications are compatible for such queries while maintaining the security and integrity of the Veterans Health Information Systems and Technology Architecture (VistA).

Database access and control, the vendor is to ensure that all generated electronic data pertaining to the DNA testing and sampling is properly collected, stored, and managed. The contractor will provide trained and certified personnel to fulfill this task. Vendor will also supply the needed materials and equipment necessary for manageability and sustainability with considerations for scalability. Vendor shall continue to ensure the existing procedures for data query pathways and outputs are within existing protocols and procedures and able to interface with end users when the need for coding or database changes are necessary.

1.2 Period of Performance: February 15, 2017 to February 14, 2018

1.3 Place of Performance: Veterans Affairs Palo Alto Health Care System  
4951 Arroyo Road  
Livermore, California 94550

1.4 Type of Contract: The government will award a Firm Fixed Price contract.

1.5 Invoicing: All invoices from the contractor shall be submitted electronically in accordance with VAAR Clause 852.232-72 Electronic Submission of Payment Requests.

VA's Electronic Invoice Presentment and Payment System – The FSC uses a third-party contractor, Tungsten, to transition vendors from paper to electronic invoice submission. Please go to this website: <http://www.tungsten-network.com/US/en/veterans-affairs/> to begin submitting electronic invoices, free of charge.

More information on the VA Financial Services Center is available at <http://www.fsc.va.gov/einvoice.asp>.

Vendor e-Invoice Set-Up Information:

Please contact Tungsten at the phone number or email address listed below to begin submitting your electronic invoices to the VA Financial Services Center for payment processing, free of

charge. If you have question about the e-invoicing program or Tungsten, please contact the FSC at the phone number or email address listed below:

- Tungsten e-Invoice Setup Information: 1-877-489-6135
- Tungsten e-Invoice email: [VA.Registration@Tungsten-Network.com](mailto:VA.Registration@Tungsten-Network.com)
- FSC e-Invoice Contact Information: 1-877-353-9791
- FSC e-invoice email: [vafscshd@va.gov](mailto:vafscshd@va.gov)

Contractor shall submit final invoice after the completion of repairs. Invoice shall include the Contract number, Purchase Order number, Order Date, Performance Period, Description of Services and itemized prices as negotiated.

## **Section 2: Definitions & Acronyms**

### Information System Related:

Bitscopic Data Access Platform (BDaP)

Chef - Configuration Management tool.

HAISS Data Warehouse (HDW)

RedHat Certified Architect (RHCA)

RedHat Certified Engineer (RHCE)

RHEL 5.x and 6.x.

Splunk - Captures, indexes and correlates real-time data in a searchable repository from which it can generate graphs, reports, alerts, dashboards and visualizations

VMware Certified (VCP6-DCV)

Acceptance Signature - COR or VA designee signature; indicates COR accepts work status as stated in SOW.

Contracting Officer

Contracting Officer's Representative

Contract Management Plan

Public Health Reference Laboratory

OPHSR - Office of Public Health Surveillance and Research

OPH – Office of Public Health

PMP – Project Management Plan

PMP – Project Management Professional

QASP - Quality Assurance Surveillance Plan

QC – Quality Control

VA - Department of Veterans Affairs

### **Section 3: Government Furnished Property, Equipment, and Services**

Government Furnished Equipment; SMC Virtual Private Network (VPN), RESCUE GFE, and proposed Site-to-Site VPN. In lieu of establishing a secure Site-to-Site VPN connectivity, government is to provide interface to VA Palo Alto Remote-Access Server for vendor's off-site access.

### **Section 4: Contractor Furnished Items and Services**

- Possess secure remote access location.
- Possess durable and reliable equipment for maintainability, sustainability, and scalability for PHRL operations.

### **Section 5: Specific Tasks**

To fulfill the Data Maintenance, Quality Control, and Data Analysis support for its DNA Sequencing Library (DNA SL); the Contractor will provide the personnel and materials/supplies to accomplish the following Monday through Friday, 8.a.m to 6p.m., excluding federal holidays:

- 5.1 The contractor shall provide an experienced and knowledgeable primary point of contract that will liaison with the PHRL staff when changes and modifications to existing procedures are needed.
- 5.2 Data Maintenance and Quality Control:
  - 5.2.1 Applications and Data Output: HIV and HCV nucleotide sequences shall be aligned to a reference sequence; determine the genotype of HCV nucleotide sequences and align them to the appropriate reference sequence
  - 5.2.2 Applications and Data Output: determine and report the range of number of nucleotides and amino acids of each sequence consists of
  - 5.2.4 Applications and Data Output: determine the uniqueness of a HIV or HCV nucleotide sequence compare to other sequences in the database.
  - 5.2.5 Applications and Data Output: reporting program of which nucleotide sequences in the database match the inputted sequence.
  - 5.2.6 Applications and Data Output: ability to add new nucleotide sequences

#### 5.4 Data Analysis Support:

5.4.1 The Contractor shall ensuring coding and applications translate nucleotide sequences into amino acid sequences in the proper reading frame

5.4.2 The Contractor shall ensuring coding and applications identify amino acid differences compared to the reference sequence

5.4.3 The Contractor shall ensuring coding and applications are able to house and implement an interpretation algorithm to identify drug resistance based on identified amino acid changes

5.4.4 The Contractor shall ensure coding and applications implement the appropriate interpretation algorithm for each HCV genotype/subtype when needed

5.4.5 The Contractor shall ensure coding and applications present amino acid changes and resistance interpretation in an easy-to-read format

5.4.6 The Contractor shall ensure coding and applications interpret algorithm easily updated and modified as new scientific information arises

5.4.7 The Contractor shall participate in weekly scheduled and/or ad hoc conference calls with OPHSR to provide a report of ongoing issues, to coordinate activities with the Government or other OPHSR contractors, to review work plans, and to establish collaboration with other teams, as needed.

#### 5.5 Contractor Deliverables

<b>5.5.1 Contractor Quality Control Plan (QCP)</b>	Due 15 days after contract start. Thereafter, updates occur on the 5 <sup>th</sup> of each month.
<b>5.5.2 Monthly Quality Control Assurance Report</b>	Due on the 5 <sup>th</sup> of each month for the previous month reporting period.
<b>5.5.3 Security Plan</b>	Due 15 days after contract start.
<b>7.1.3.1 Participate in kick-off meeting</b>	At Kickoff Meeting
<b>7.1.3.2 Kick-off Meeting Minutes (collaborate with VA staff)</b>	Due 10 days after Kickoff Meeting
<b>7.1.3.3 Work plan and project schedule (include Staffing Plan, PM Plan)</b>	At Kickoff Meeting
<b>7.2.2.1 Project Management Plan</b>	On the 5th business day of each month
<b>7.2.2.2 Staffing Report</b>	Within 3 business days after a significant personnel change.
<b>7.2.2.3. Monthly Progress Report</b>	On the 5th business of each month

## **Section 6: Applicable Publications**

6.1 VA Handbook 6500.6, Contract Security, Appendix C is available at

[http://www.ois.oit.va.gov/docs/Appendix\\_C.pdf](http://www.ois.oit.va.gov/docs/Appendix_C.pdf).