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Description of document: Alcohol and Tobacco Tax and Trade Bureau (TTB) contract and the successful proposal for contract TFSATTB140077 awarded to Serge Genomics SRL to conduct DNA testing of wine, 2009-2014

Requested date: 25-November-2018

Release date: 11-March-2019

Posted date: 29-April-2019

Source of document: FOIA Request  
Quinton Mason  
TTB FOIA Requester Service Center  
1310 G Street, NW  
Box 12  
Washington, DC 20005  
Fax: 202-453-2331  
[Department of the Treasury Online FOIA Request Form](#)

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DEPARTMENT OF THE TREASURY  
ALCOHOL AND TOBACCO TAX AND TRADE BUREAU  
WASHINGTON, D.C. 20005

March 11, 2019

Refer to: **2018-12-048**  
4040000

SENT VIA EMAIL

This letter is in response to your Freedom of Information Act (FOIA) request to the Alcohol and Tobacco Tax and Trade Bureau (TTB) dated November 25, 2018. You are requesting "a copy of the contract and the successful proposal for contract TFSATTB140077 awarded to Serge Genomics SRL to conduct DNA testing."

We conducted a search of files within TTB for records responsive to your request and identified 16 pages. Of those pages, 15 are being released in part, with information exempt from disclosure under the FOIA having been redacted pursuant to 5 U.S.C. 552(b)(4) and/or (b)(6) and 1 is being withheld in full pursuant to the exemptions from disclosure under the FOIA at 5 U.S.C. 552 (b)(4).

Enclosed is a Document Cover Sheet that describes the FOIA exemptions and outlines your appeal rights. If you choose to appeal this response, you must do so within 90 days from the date of this letter.

Please note that a FOIA Public Liaison is available if you would like to discuss any issues regarding a FOIA response. A FOIA Public Liaison is a supervisory official with the Department of the Treasury to whom FOIA requesters can raise questions or concerns about the agency's FOIA process. FOIA Public Liaisons can explain agency records, suggest agency offices that may have responsive records, provide an estimated date of completion, and discuss how to reformulate and/or reduce the scope of requests in order to minimize fees and expedite processing time.

If you would like to discuss this response, perhaps to resolve a dispute before filing an appeal, you may contact Paul Levitan, the FOIA Public Liaison, by email at [FOIAPL@treasury.gov](mailto:FOIAPL@treasury.gov) or by telephone at (202) 622-8098.

If you are unable to resolve a FOIA dispute through the FOIA Public Liaison, the Office of Government Information Services (OGIS) at the National Archives and Records Administration, offers mediation services to resolve disputes between

FOIA requesters and Federal agencies as a non-exclusive alternative to litigation. Using OGIS services does not affect your right to pursue litigation. If you are requesting access to your own records (which is considered a Privacy Act request), please note that OGIS does not have the authority to handle requests made under the Privacy Act of 1974. The contact information for OGIS is:

Office of Government Information Services  
National Archives and Records Administration  
8601 Adelphi Road-OGIS  
College Park, MD 20740-6001  
Email: [ogis@nara.gov](mailto:ogis@nara.gov)  
Telephone: 202-741-5770  
Toll free: 1-877-684-6448  
Fax: 202-741-5769

Please be advised that contacting any agency official (including the Disclosure Officer or FOIA Public Liaison) and/or OGIS **is not** an alternative to filing an administrative appeal and **does not** stop the 90-day appeal clock.

Please note we are charging no fee for processing your request. If you have any questions regarding this letter, feel free to contact Quinton Mason, TTB Disclosure Officer, by telephone at (202) 882-9904 or by e-mail at [TTBFOIA@ttb.gov](mailto:TTBFOIA@ttb.gov), and reference FOIA number **2018-12-048**.

Sincerely,

A handwritten signature in blue ink, appearing to read "Amy R. Greenberg".

Amy R. Greenberg  
Director, Regulations and Rulings Division

Enclosure(s): As stated



<b>SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS</b> <b>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, &amp; 30</b>				1. REQUISITION NUMBER TTB-40200-14-0041		PAGE OF 1 15	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE 09/22/2014		4. ORDER NUMBER TFSATTB140077		5. SOLICITATION NUMBER	
7. <b>FOR SOLICITATION INFORMATION CALL:</b>		a. NAME BRIAN WATSON		b. TELEPHONE NUMBER (No collect calls)		8. OFFER DUE DATE/LOCAL TIME	
9. ISSUED BY Bureau of the Fiscal Service Division of Procurement Avery 5F 200 Third Street Attn: M. Coplin Parkersburg WV 26101				10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED OR <input type="checkbox"/> SET ASIDE: % FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> WOMEN-OWNED SMALL BUSINESS <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> (WOSB) ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input type="checkbox"/> EDWOSB <input type="checkbox"/> 8(A) NAICS: 541990 SIZE STANDARD: \$14.0			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS NET 30 PROMPT PAY		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		13b. RATING	
15. DELIVER TO TTB - A & T LAB -NLC TTB - ALCOHOL & TOBACCO LABORATORY 6000 AMMENDALE ROAD BELTSVILLE MD 20705		16. ADMINISTERED BY Bureau of the Fiscal Service Division of Procurement Administration Branch Avery 5F 200 Third Street Parkersburg WV 26101		14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input type="checkbox"/> RFP			
17a. CONTRACTOR/OFFEROR SERGE GENOMICS SRL VIA MATTIOLI PIER ANDREA 4 SIENA SIENA 53100		18a. PAYMENT WILL BE MADE BY ARC/ASD/APB ARC/ASD/APB, AVERY 3G PO BOX 1328 ACCOUNTSPAYABLE@FISCAL.TREASURY.GOV PARKERSBURG WV 26106-1328		19. ITEM NO.			
TELEPHONE NO. 390577232856		17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER		20. SCHEDULE OF SUPPLIES/SERVICES			
				21. QUANTITY			
				22. UNIT			
				23. UNIT PRICE			
				24. AMOUNT			
				25. ACCOUNTING AND APPROPRIATION DATA See schedule			
				26. TOTAL AWARD AMOUNT (For Govt. Use Only) \$100,000.00			
				27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.			
				27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.			
				28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED.			
				29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR SERGE GENOMICS SRL		31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)					
30b. NAME AND TITLE OF SIGNER (Type or print) RITA VIGNANI, PhD, Vice President		31b. NAME OF CONTRACTING OFFICER (Type or print) GINA N. HUFFMAN					
30c. DATE SIGNED 09/25/2014		31c. DATE SIGNED SEPTEMBER 25th, 2014					

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
0001	<p>Gov't TPOC: (b) (6)</p> <p>Ph (b) (6)</p> <p>Email: (b) (6)</p> <p>Invoice Monthly in Arrears and Converted to US Dollars using <a href="http://www.xe.com">http://www.xe.com</a> with a copy attached to invoice providing computation.</p> <p>Accounting Info: TTB1008DB1414XX-2014-61000001-252004-TTB0402000000 -TTBRCAXXXX-TTBMLGXXXXXX-XXXXXXX-XXXXXXXXXX-XXXX-XX XXXXXXXXXX-XXXXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX Period of Performance: 09/22/2014 to 03/21/2016</p> <p>DNA for wine authentication</p> <p>Phase 3:</p> <p>WP1: Tracking the main variety in commercial blended wines:</p> <p>(b) (4)</p> <p>WP2 Quantitative PCR development: Continued ...</p>				100,000.00

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED    ☐ INSPECTED    ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: \_\_\_\_\_

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE			32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
			32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT	37. CHECK NUMBER
<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL			<input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY		
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY ( <i>Print</i> )		
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE	42b. RECEIVED AT ( <i>Location</i> )	
			42c. DATE REC'D (YY/MM/DD)	42d. TOTAL CONTAINERS

NAME OF OFFEROR OR CONTRACTOR  
SERGE GENOMICS SRL

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<div>(b) (4)</div> <p>Not to exceed \$100,000.00 US Dollars</p> <p>(Phases 1 and 2 were originally acquired on TPD-TTB-09-00059)</p> <p>After award, any questions or issues related to this procurement will be handled by the Contract Administration Branch at ContractAdministration@bpd.treas.gov. When sending an e-mail to this address, please include the award number in the subject line of the e-mail.</p> <p>The total amount of award: \$100,000.00. The obligation for this award is shown in box 26.</p>				

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
0001	<p>Gov't TPOC: (b) (6)</p> <p>Ph (b) (6)</p> <p>Email: (b) (6)</p> <p>Invoice Monthly in Arrears and Converted to US Dollars using http://www.xe.com with a copy attached to invoice providing computation.</p> <p>Accounting Info: TTB1008DB1414XX-2014-61000001-252004-TTB0402000000 -TTBRCAXXXX-TTBMLGXXXXXX-XXXXXXXX-XXXXXXXX-XXXX-XX XXXXXXXXXX-XXXXXXXXXXXX-XXXXXXXX-XXXXXXXX Period of Performance: 09/22/2014 to 03/21/2016</p> <p>DNA for wine authentication</p> <p>Phase 3:</p> <p>WP1: Tracking the main variety in commercial blended wines:</p> <p>(b) (4)</p> <p>WP2 Quantitative PCR development: Continued ...</p>				100,000.00

32a. QUANTITY IN COLUMN 21 HAS BEEN

☐ RECEIVED    ☐ INSPECTED    ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: \_\_\_\_\_

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE			32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
			32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE	
33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT	37. CHECK NUMBER
<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL			<input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY		
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY ( <i>Print</i> )		
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE	42b. RECEIVED AT ( <i>Location</i> )	
			42c. DATE REC'D (YY/MM/DD)	42d. TOTAL CONTAINERS

NAME OF OFFEROR OR CONTRACTOR  
SERGE GENOMICS SRL

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<div>(b) (4)</div> <p>Not to exceed \$100,000.00 US Dollars</p> <p>(Phases 1 and 2 were originally acquired on TPD-TTB-09-00059)</p> <p>After award, any questions or issues related to this procurement will be handled by the Contract Administration Branch at ContractAdministration@bpd.treas.gov. When sending an e-mail to this address, please include the award number in the subject line of the e-mail.</p> <p>The total amount of award: \$100,000.00. The obligation for this award is shown in box 26.</p>				



## **52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <https://www.acquisition.gov/far/>

## **52.212-4 CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS (MAY 2014)**

### **ADDENDUM TO 52.212-4, CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS (MAY 2014)**

#### **ELECTRONIC INVOICING AND PAYMENT REQUIREMENTS**

Internet Payment Platform (IPP) is a secure web-based electronic invoicing and payment information service available to all Federal agencies and their supplier by the U.S. Treasury's Financial Management Service. IPP allows Federal agencies and their suppliers to exchange electronic purchase orders, blanket POs, invoices, and payment information in one easy to access web portal. This service is free of charge to government agencies and their suppliers, including services and support.

The preferred method for invoicing is through IPP. The IPP website address is <https://www.ipp.gov>. Contractor assistance with enrollment can be obtained by contacting the Bureau of the Public Debt's IPP Team at 304-480-8000, Option 7 or IPP Production Help desk via email [ippgroup@bos.frb.org](mailto:ippgroup@bos.frb.org) or phone (866) 973-3131.

If the Contractor is unable to utilize IPP for submitting payment requests, invoices may be submitted electronically to the e-mail address shown in Block 18a, page 1 after completing the IPP Waiver Form and submitting it via e-mail to [contractadministration@bpd.treas.gov](mailto:contractadministration@bpd.treas.gov) (see IPP Waiver Attachment). Adobe Acrobat Portable Document Format (PDF) and Microsoft Word are acceptable formats. Invoices shall contain the information required in FAR 52.212-4(g).

#### **OVERPAYMENTS**

In accordance with 52.212-4 section (i) 5 Overpayments: Accounts Receivable Conversion of Check Payments to electronic funds transfer (EFT): If the Contractor sends the Government a check to remedy duplicate contract financing or an overpayment by the government, it will be converted into an EFT. This means the Government will copy the check and use the account information on it to electronically debit the Contractor's account for the amount of the check. The debit from the Contractor's account will usually occur within 24 hours and will be shown on the regular account statement.

The Contractor will not receive the original check back. The Government shall destroy the Contractor's original check, but will keep a copy of it. If the EFT cannot be processed for technical reasons, the Contractor authorizes the Government to process the copy in place of the original check.

#### **MARKING OF SHIPMENTS**

The Contractor shall ensure the contract number TFSATTB140077 is clearly visible on all shipping/service documents, containers, and invoices.

#### **PERFORMANCE EVALUATION**

This contract is subject to a performance evaluation via The Contractor Performance Reporting System (CPARS) at [www.cpars.csd.disa.mil](http://www.cpars.csd.disa.mil). Following the end of each contract period and at contract completion, a completed Government evaluation shall be forwarded to the Contractor. The Contractor may submit written comments, if any, within the time period specified in the evaluation transmittal. The Contractor's comments shall be considered in the issuance of the final evaluation document. Any disagreement between the parties regarding the evaluation shall be forwarded to the Bureau Chief Procurement Officer (BCPO). The final evaluation of the Contractor's performance is the decision of the BCPO. A copy of the final performance evaluation report will be sent to the Contractor and to the Government's past performance database at [www.ppirs.gov](http://www.ppirs.gov).

#### **1052.201-70 CONTRACTING OFFICER'S REPRESENTATIVE (COR) APPOINTMENT AND AUTHORITY (JUN 2012)**

(a) The COR(s) are named on the award form SF-1449. Should a change to the COR(s) be necessary in the future, they will be named on the modification SF-30.

(b) Performance of work under this contract is subject to the technical direction of the COR identified above, or a representative designated in writing. The term "technical direction" includes, without limitation, direction to the contractor that directs or redirects the labor effort, shifts the work between work areas or locations, and/or fills in details and otherwise serves to ensure that tasks outlined in the work statement are accomplished satisfactorily.

(c) Technical direction must be within the scope of the contract specification(s)/work statement. The COR does not have authority to issue technical direction that:

(1) Constitutes a change of assignment or additional work outside the contract specification(s)/work statement;

(2) Constitutes a change as defined in the clause entitled "Changes";

(3) In any manner causes an increase or decrease in the contract price, or the time required for contract performance;

(4) Changes any of the terms, conditions, or specification(s)/work statement of the contract;

(5) Interferes with the contractor's right to perform under the terms and conditions of the contract; or

(6) Directs, supervises or otherwise controls the actions of the contractor's employees.

(d) Technical direction may be oral or in writing. The COR must confirm oral direction in writing within five workdays, with a copy to the Contracting Officer.

(e) The Contractor shall proceed promptly with performance resulting from the technical direction issued by the COR. If, in the opinion of the contractor, any direction of the COR or the designated representative falls within the limitations of (c) above, the contractor shall immediately notify the Contracting Officer no later than the beginning of the next Government work day.

(f) Failure of the Contractor and the Contracting Officer to agree that technical direction is within the scope of the contract shall be subject to the terms of the clause entitled "Disputes."

#### **52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (APR 2014)**

(a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.

(b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold.

#### **52.204-9 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (JAN 2011)**

(a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

(b) The Contractor shall account for all forms of Government-provided identification issued to the Contractor employees in connection with performance under this contract. The Contractor shall return such identification to the issuing agency at the earliest of any of the following, unless otherwise determined by the Government:

(1) When no longer needed for contract performance.

(2) Upon completion of the Contractor employee's employment.

(3) Upon contract completion or termination.

(c) The Contracting Officer may delay final payment under a contract if the Contractor fails to comply with these requirements.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts when the subcontractor's employees are required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system. It shall be the responsibility of the prime Contractor to return such identification to the issuing agency in accordance with the terms set forth in paragraph (b) of this section, unless otherwise approved in writing by the Contracting Officer.

#### **1052.210-70 CONTRACTOR PUBLICITY (AUG 2011)**

The Contractor, or any entity or representative acting on behalf of the Contractor, shall not refer to the equipment or services furnished pursuant to the provisions of this contract in any news release or commercial advertising, or in connection with any news release or commercial advertising, without first obtaining explicit written consent to do so from the Contracting Officer. Should any reference to such equipment or services appear in any news release or commercial advertising issued by or on behalf of the Contractor without the required consent, the Government shall consider institution of all remedies available under applicable law, including 31 U.S.C. 333, and this contract. Further, any violation of this provision may be considered during the evaluation of past performance in future competitively negotiated acquisitions.

#### **52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)**

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 30 days.

#### **52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)**

(a) Except as stated in paragraph (b) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(1) Any such clause is unenforceable against the Government.

(2) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(3) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(b) Paragraph (a) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulation and procedures.

#### **52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (DEC 2013)**

(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 items.

**52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (JUN 2014)**

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-50, Combating Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

\_\_\_ Alternate I (AUG 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(2) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Public Laws 108-77, 108-78 (19 U.S.C. 3805 note)).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

X (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 4704 and 10 U.S.C. 2402).

\_\_\_ (2) 52.203-13, Contractor Code of Business Ethics and Conduct (Apr 2010) (41 U.S.C. 3509).

\_\_\_ (3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (Jun 2010) (Section 1553 of Pub L. 111-5) (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009).

X (4) 52.204-10, Reporting Executive compensation and First-Tier Subcontract Awards (Jul 2013) (Pub. L. 109-282) (31 U.S.C. 6101 note).

\_\_\_ (5) [Reserved]

\_\_\_ (6) 52.204-14, Service Contract Reporting Requirements (Jan 2014) (Pub. L. 111-117, section 743 of Div. C).

\_\_\_ (7) 52.204-15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (Jan 2014) (Pub. L. 111-117, section 743 of Div. C).

X (8) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Aug 2013) (31 U.S.C. 6101 note).

\_\_\_ (9) 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (Jul 2013) (41 U.S.C. 2313).

\_\_\_ (10) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (May 2012) (section 738 of Division C of Public Law 112-74, section 740 of Division C of Pub. L. 111-117, section 743 of Division D of Pub. L. 111-8, and section 745 of Division D of Pub. L. 110-161).

\_\_\_ (11) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (Nov 2011) (15 U.S.C. 657a).

\_\_\_ (12) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 2011) (if the offeror elects to waive the preference, it shall so indicate in its offer)(15 U.S.C. 657a).

\_\_\_ (13) [Reserved]

- \_\_\_ (14) (i) 52.219-6, Notice of Total Small Business Aside (Nov 2011) (15 U.S.C. 644).
- \_\_\_ (ii) Alternate I (Nov 2011).
- \_\_\_ (iii) Alternate II (Nov 2011).
- \_\_\_ (15) (i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).
- \_\_\_ (ii) Alternate I (Oct 1995) of 52.219-7.
- \_\_\_ (iii) Alternate II (Mar 2004) of 52.219-7.
- \_\_\_ (16) 52.219-8, Utilization of Small Business Concerns (May 2014) (15 U.S.C. 637(d)(2) and (3)).
- \_\_\_ (17) (i) 52.219-9, Small Business Subcontracting Plan (Jul 2013) (15 U.S.C. 637 (d)(4)).
- \_\_\_ (ii) Alternate I (Oct 2001) of 52.219-9.
- \_\_\_ (iii) Alternate II (Oct 2001) of 52.219-9.
- \_\_\_ (iv) Alternate III (July 2010) of 52.219-9.
- \_\_\_ (18) 52.219-13, Notice of Set-Aside of Orders (Nov 2011) (15 U.S.C. 644(r)).
- \_\_\_ (19) 52.219-14, Limitations on Subcontracting (Nov 2011) (15 U.S.C. 637(a)(14)).
- \_\_\_ (20) 52.219-16, Liquidated Damages—Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).
- \_\_\_ (21) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Oct 2008) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).
- \_\_\_ (ii) Alternate I (June 2003) of 52.219-23.
- \_\_\_ (22) 52.219-25, Small Disadvantaged Business Participation Program—Disadvantaged Status and Reporting (Jul 2013) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- \_\_\_ (23) 52.219-26, Small Disadvantaged Business Participation Program—Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- \_\_\_ (24) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (Nov 2011) (15 U.S.C. 657f).
- \_\_\_ (25) 52.219-28, Post Award Small Business Program Rerepresentation (Jul 2013) (15 U.S.C. 632(a)(2)).
- \_\_\_ (26) 52.219-29, Notice of Set-Aside for Economically Disadvantaged Women-Owned Small Business (EDWOSB) Concerns (Jul 2013) (15 U.S.C. 637(m)).
- \_\_\_ (27) 52.219-30, Notice of Set-Aside for Women-Owned Small Business (WOSB) Concerns Eligible Under the WOSB Program (Jul 2013) (15 U.S.C. 637(m)).
- \_\_\_ (28) 52.222-3, Convict Labor (June 2003) (E.O. 11755).
- X (29) 52.222-19, Child Labor—Cooperation with Authorities and Remedies (Jan 2014) (E.O. 13126).



X (30) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

X (31) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

X (32) 52.222-35, Equal Opportunity for Veterans (Sep 2010) (38 U.S.C. 4212).

X (33) 52.222-36, Affirmative Action for Workers with Disabilities (Oct 2010) (29 U.S.C. 793).

X (34) 52.222-37, Employment Reports on Veterans (Sep 2010) (38 U.S.C. 4212).

\_\_\_ (35) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496).

\_\_\_ (36) 52.222-54, Employment Eligibility Verification (Aug 2013). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

\_\_\_ (37) (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

\_\_\_ (ii) Alternate I (May 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

13423 \_\_\_ (38) (i) 52.223-13, Acquisition of EPEAT® -Registered Imaging Equipment (Jun 2014) + (E.O.s and 13514

\_\_\_ (ii) Alternate I (Jun 2014) of 52.223-13.

13514). \_\_\_ (39) (i) 52.223-14, Acquisition of EPEAT® -Registered Television (Jun 2014) (E.O.s 13423 and

\_\_\_ (ii) Alternate I (Jun 2014) of 52.223-14.

\_\_\_ (40) 52.223-15, Energy Efficiency in Energy-Consuming Products (Dec 2007) (42 U.S.C. 8259b).

\_\_\_ (41) (i) 52.223-16, Acquisition of EPEAT® -Registered Personal Computer Products (Jun 2014) (E.O.s 13423 and 13514).

\_\_\_ (ii) Alternate I (Jun 2014) of 52.223-16.

X (42) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging while Driving (Aug 2011).

\_\_\_ (43) 52.225-1, Buy American--Supplies (May 2014) (41 U.S.C. chapter 83).

\_\_\_ (44) (i) 52.225-3, Buy American--Free Trade Agreements--Israeli Trade Act (May 2014) (41 U.S.C. chapter 83, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, 19 U.S.C. 4001 note, Pub. L. 103-182, 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, 110-138, 112-41, 112-42, and 112-43).

\_\_\_ (ii) Alternate I (May 2014) of 52.225-3.

\_\_\_ (iii) Alternate II (May 2014) of 52.225-3.

\_\_\_ (iv) Alternate III (May 2014) of 52.225-3.

\_\_\_ (45) 52.225-5, Trade Agreements (Nov 2013) (19 U.S.C. 2501, *et seq.*, 19 U.S.C. 3301 note).

X (46) 52.225-13, Restrictions on Certain Foreign Purchases (Jun 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

\_\_\_ (47) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2303 Note).

\_\_\_ (48) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).

\_\_\_ (49) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

\_\_\_ (50) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 4505), 10 U.S.C. 2307(f)).

\_\_\_ (51) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).

X (52) 52.232-33, Payment by Electronic Funds Transfer— System for Award Management (Jul 2013) (31 U.S.C. 3332).

\_\_\_ (53) 52.232-34, Payment by Electronic Funds Transfer—Other Than System for Award Management (Jul 2013) (31 U.S.C. 3332).

\_\_\_ (54) 52.232-36, Payment by Third Party (May 2014) (31 U.S.C. 3332).

\_\_\_ (55) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).

\_\_\_ (56) (i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631).

\_\_\_ (ii) Alternate I (Apr 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items:

\_\_\_ (1) 52.222-41, Service Contract Labor Standards (May 2014) (41 U.S.C. chapter 67.).

\_\_\_ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

\_\_\_ (3) 52.222-43, Fair Labor Standards Act and Service Contract Labor Standards -- Price Adjustment (Multiple Year and Option Contracts) (May 2014) (29 U.S.C.206 and 41 U.S.C. chapter 67).

\_\_\_ (4) 52.222-44, Fair Labor Standards Act and Service Contract Labor Standards -- Price Adjustment (May 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

\_\_\_ (5) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (May 2014) (41 U.S.C. chapter 67).

\_\_\_ (6) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (May 2014) (41 U.S.C. chapter 67).

\_\_\_ (7) 52.222-17, Nondisplacement of Qualified Workers (May 2014) (E.O. 13495).

\_\_\_ (8) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (May 2014) (42 U.S.C. 1792).

\_\_\_ (9) 52.237-11, Accepting and Dispensing of \$1 Coin (Sep 2008) (31 U.S.C. 5112(p)(1)).

(d) *Comptroller General Examination of Record* The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records -- Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)

(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (Apr 2010) (41 U.S.C. 3509).

(ii) 52.219-8, Utilization of Small Business Concerns (May 2014) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$650,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) 52.222-17, Nondisplacement of Qualified Workers (May 2014) (E.O. 13495). Flow down required in accordance with paragraph (1) of FAR clause 52.222-17.

(iv) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(v) 52.222-35, Equal Opportunity for Veterans (Sep 2010) (38 U.S.C. 4212).

(vi) 52.222-36, Affirmative Action for Workers with Disabilities (Oct 2010) (29 U.S.C. 793).

(vii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.

(viii) 52.222-41, Service Contract Labor Standards (May 2014), (41 U.S.C. chapter 67).

(ix) 52.222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).

\_\_\_ Alternate I (Aug 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(x) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (May 2014) (41 U.S.C. chapter 67.)

(xi) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (May 2014) (41 U.S.C. chapter 67)

(xii) 52.222-54, Employment Eligibility Verification (Aug 2013).

(xiii) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xiv) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (May 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xv) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

### **Performance Work Statement**

#### **Wine Varietal Authentication Using DNA Analysis, Phase 3, FY 2014**

##### **Introduction to TTB:**

The Alcohol and Tobacco Tax and Trade Bureau (TTB) is a bureau within the Department of the Treasury. TTB's mission is to collect alcohol, tobacco, firearms and ammunition excise taxes, and to administer the laws and regulations in a manner that protects the revenue, consumer, and promotes voluntary compliance. The Scientific Services Division (SSD) provides comprehensive technical support to all TTB programs. SSD carries out its mission through the operation of four laboratories.

##### **The Need to Develop Capabilities for Polymerase Chain Reaction (PCR) Analysis for Wine Varietal Authentication:**

To protect the public and honest industry members from false or misleading labels, advertising or marketing and assist wine exporters when varietal designations is challenged by foreign governments, SSD would like to expand its analytical capabilities by developing DNA analysis for varietal authentication of wines. In its simplest terms, Polymerase Chain Reaction (PCR) is a deoxyribonucleic acid (DNA) copying process that takes very few segments of DNA and makes millions of exact copies. Although the technique was only recently discovered in the 1980's, it is now considered "routine" in the field of microbiology and biotechnology. Some of the applications of DNA marker technologies include forensic science, detection of viruses, bacteria, respiratory tract infections, and identification of bioterrorism agents. PCR analysis has also been used in food authentication research. The authenticity of foods and beverages such as seafood, rice, grapes, grape musts and wine has been investigated using PCR-DNA analysis.

In 2009, TTB initiated a collaborative project with Serge-Genomics (University of Siena, Siena, Italy) to study the feasibility of utilizing PCR technology for identifying DNA in wine and authenticating varietal designations of blended wines. As of today, two phases, Phase 1 and Phase 2, have been completed in 2009 and 2011, respectively. The results of the two studies showed that PCR technology has great promise in detecting grape DNA in wines and authenticating wine varietal label claims (a varietal designation may be used if at least 75 percent of the wine is derived from grapes of that variety) based on DNA markers.

### **Progress in Phase 1 and Phase 2 Projects:**

#### Phase 1 (2009)

In 2009, SSD initiated a project at Serge-Genomics; a spin-off company of University of Siena, Italy, to study the feasibility of PCR based DNA analysis for grape varietal authentication. Eight mono-varietal wines (Chardonnay, Sauvignon Blanc, Riesling, Merlot, Cabernet Sauvignon, Pinot Noir, Zinfandel, and Sangiovese) were studied under this project. The key findings of this study are listed below:

- DNA fragments in all 8 mono-varietal wines were detected after extraction
- PCR was carried out successfully for all the wines
- The genotypes of all 8 mono-varietal wines unambiguously matched with those from their corresponding grape cultivar
- The panel of DNA markers used is highly discriminative for all 8 mono-varietal wines
- Qualitative PCR study of a binary blended wine showed that the major and minor components can be detected in concentration as low as 2% in this case

The research also identified that a real-time PCR method needs to be developed for quantification of major component in blended wines

#### Phase 2 (2011)

Based on the successes and findings of the 1<sup>st</sup> phase (2009), SSD initiated the 2<sup>nd</sup> phase of the project in 2011 at Serge-Genomics (University of Siena, Italy) to conduct a blind study to authenticate the varietal identification of commercial blended wines. Seven commercial blended wines (4 reds and 3 whites) were provided to Serge-Genomics without the labels (identified only by the laboratory numbers) to carry out qualitative PCR approach for DNA genotyping (developed in phase 1, 2009, Siret modified extraction protocol) for identification of the major wine components (genotyping at least seven loci). The project also included a feasibility study to evaluate different design/chemistry for Real-Time probes suitable for SSR-derived allele discrimination for quantitative PCR. The key findings of this study are listed below:

- In the blind study, seven commercial wines - Merlot, Cabernet Sauvignon, Zinfandel, Pinot Noir, Riesling, Chardonnay, and Sauvignon Blanc were tested. All wines contained at least 75% of the label varietal wine. Six of the seven wines were correctly identified.
- The only wine that was not correctly identified was Merlot. From previous studies, it was shown that the amount of residual DNA found in Merlot was the least among the seven wines tested. The misidentification of Merlot by this technique is understandable and may be due to very low amounts of DNA in Merlot
- Allele sequences from the seven wines of interest revealed the presence of several variations in length of the repetitive core regions that explains the intra-varietal polymorphism of alleles on which the grapevine genotyping is based. This information (polymorphism for each allele) is fundamental for setting up a quantitative varietal identification based on molecular probes to be used in RealTime PCR.
- Preliminary data demonstrated that the use of TaqMan probes (TsgD25 and TsgS2 used in the previous study) anchored to the repetitive regions of SSRs loci from the grapevine genome gives a cultivar specific amplification pattern both in plants and in experimental wines
- The data indicate it should be possible to design and perform allele-specific Taqman probes for developing a quantitative varietal molecular determination method (RealTime PCR) in wines



The results of these studies are very encouraging. However, further validation studies will be necessary to ensure that the method is reproducible and rugged.

### **Phase 3, 2014 Project Goals:**

As noted above, the findings of the Phase 1 and Phase 2 studies conducted by Serge-Genomics are very exciting. However, further research needs to be carried out to fully validate the method. Once the method is fully developed and validated, it will provide the Beverage Alcohol Laboratory of TTB a unique capability for wine varietal authentication. Currently, the chemists in the Beverage Alcohol Laboratory of SSD lack formal training in DNA analyses and TTB does not have the equipment to perform the PCR-based DNA analysis of wines. The University of Siena has developed the PCR based DNA analysis method for wine varietal authentication in collaboration with TTB (Phase 1 and Phase 2) and, therefore, has unique knowledge of the technical details of the method. TTB has a need to continue the research project to further develop and validate the PCR-based DNA method developed at University of Siena for authentication of wine varieties. The phase 3 study will include another blind study with commercial blended wines (includes wine from NY and CA) and further develop probes for RealTime PCR – to quantitate contributions of wine varieties in blended wines.

For the blind study, TTB will provide Serge-Genomics seven commercial blended wines (Cabernet Sauvignon, Merlot, Zinfandel, Pinot Noir, Riesling, Chardonnay, and Sauvignon Blanc) - all wines repackaged in similar bottles and identified only with BAL laboratory numbers. For the realTime PCR study, TTB will provide Serge-Genomics samples of mono-varietal Cabernet Sauvignon and Pinot Noir for preparing experimental wines (two component). The Performance Work Statement (PWS) is shown as follows:

#### **WP Part 1 (Blind study of commercial blended wines)**

Extract DNA from seven commercially blended wines and predict the varietal designation (blind study) using the DNA extraction technique according to TCEP modified protocol developed in the previous research project (TCEP modified extraction protocol). Carry out qualitative PCR analysis with the extract for DNA genotyping for identification of the components in the blended wines (genotyping at 15 loci). The blind wine samples to be tested should have the following major (at least 75%) varietal components: Cabernet Sauvignon, Merlot, Zinfandel, Pinot Noir, Riesling, Chardonnay, and Sauvignon Blanc. An eighth varietal, Sangiovese, might be tested as a control. The extraction of DNA and qualitative PCR-based DNA analysis for each blended wine will be performed in triplicate using wines provided by TTB.

#### **WP Part 2 (Quantitative PCR Method Development)**

Conduct a study to optimize TaqMan probes targeting SSR-amplification products. These tests include specificity on grape vines, on mono-varietal wines and in experimental blended (two-component) wines. For statistical significance, at least five to six discriminant allele anchored probes should be synthesized. At least three probes should initially be optimized on grape vine genomic DNA. Once optimized, the probes will then be tested on experimental blended wines. In this study, the experimental blended wines will be made from Cabernet Sauvignon with another red wine (e.g., Pinot Noir). For each case, three blended wine samples will be prepared containing different proportions of the predominant wine and the probes will be applied to the DNA extracted from the experimental blended wine samples (DNA extraction using the method mentioned in the previous section). For example, three blended wine samples will be prepared from Cabernet Sauvignon and one other red wine varietal in ratios of 50%, 75% and 85% Cabernet Sauvignon. **On each wine, a cultivar detection test will be carried out. This will include testing at least three probes in duplicate to prove probe consistency in detecting specific cultivar-associated alleles.**

### **Reports:**

- 1) For all parts of the WPS, the Contractor shall submit written status reports on a quarterly basis (every 3 months) including a description of methods developed to ascertain wine genotypes and all relevant data. The Contractor shall also provide monthly updates on the project progress either by

teleconference or via emails. Technical meetings (via teleconference) may also occur on a quarterly basis, when appropriate.

- 2) At the completion of all parts of the project, the Contractor shall submit a full final report for the genotyping of the wines tested using PCR in this project. The full reports shall include, but is not limited to, the following:
  - The details of the extraction protocol of DNA from wines used in the study (modified Siret methods)
  - Details of all findings and results of the study with appropriate tables, graphs, identity of alleles, identity of wine varieties in the blind commercial samples as well as all other relevant data, experimental details, and conclusion.
  - A complete list of all equipment and peripherals required to complete the qualitative PCR-based DNA analysis of wines for varietal component determination
  - Details of the TaqMan probe based quantitative PCR method that includes a protocol for synthesis and structural information of the probes, detailed methodology for testing the probes, and results of the study with appropriate tables, graphs, identity of alleles as well as all other relevant data, experimental details, equipment, and conclusion.
- 3) TTB shall reserve the right of full ownership of the findings of this research project. If TTB publishes the full or any part of the project findings, it will include the principal investigator and/or key research scientists of the Contractor (who contributed to the project) as co-authors.

#### **Place and Period of Performance:**

The place of performance will be at the Contractor's place of business; however if meetings are required at TTB National Laboratory Center, 6000 Ammendale Road, Beltsville, Maryland 20705, the contractor will be escorted at all times.

The period of performance consists of the date of award through month 18. The requirement is anticipated to be approximately 18 months and may be extended to 24 months. TTB will provide the wine samples needed for the studies.

#### **Travel:**

The Government will reimburse travel expenses at actual expenses incurred. Actual travel expenses are limited by the Government Travel Regulations. Travel will be paid in accordance with FAR regulation 31.205-46 Travel Costs. All travel expenses shall be approved by the TTB Contracting Officer Technical Representative (COTR) prior to expenditure in writing. A receipt shall be required for all lodging, transportation costs and any expenditure of \$75.00 or more. If any expenditure exceeds the allowed amount, documentation shall be provided to justify the overage. However, if it is determined those conferences can be conducted by a conference call then travel to the TTB National Laboratory at Beltsville, Maryland may not be necessary and will not be reimbursed.

#### **Proposal Instructions:**

All work to be performed under this contract shall commence upon award. Submission of a proposal request is not an authorization to begin work, but rather a request for the contractor to propose a solution and price proposal estimate for the requirement. This submission should include a proposed project plan, identify any resources to be utilized, and include a detailed breakdown of the hours/days necessary to perform all aspects of the work and the contractor's proposed hourly/daily rate and an estimate for any related material costs, if necessary during performance to build up to the total price proposed. Upon submission of a proposal for the requirement by the contractor, the TTB will evaluate the proposal and work with the contractor to ensure that all TTB requirements will be met. The TTB may request a revised proposal. When the contractor proposal has been revised to the satisfaction of the TTB, a contract will be issued. Contract award will be in writing and will be issued by the Contracting Officer.