Request For Information

Transfusion Services Software Application

Request for Information #14-524239-cs

Date Issued: 7/8/2014
Due Date: 8/6/2014 by 3:00 PDT

Submitted by the University of California
Davis Health System

This RFI is also available at:  http://www.ucdmc.ucdavis.edu/matmg

All questions regarding this RFI should be by email only and directed to:

Connie Stewart
UCDHS Purchasing Department
Email: connie.stewart@ucdmc.ucdavis.edu

Questions should not be directed to any other University departments or staff. Material or substantive information provided to any bidder, as a result of questions received, will be provided to all bidders via an addendum to this RFI.
INTRODUCTION

University of California at Davis Health System Profile

The **University of California, Davis Health System (UCDHS)** provides the organizational framework that enables the University of California, Davis to fulfill teaching, research, patient-care and public service missions. It consists of the School of Medicine (SOM), the UC Davis Medical Center (UCDMC), the UC Davis Medical Group and several specific centers such as the UC Davis Cancer Center, the UC Davis Children's Hospital and the UC Davis M.I.N.D. Institute. Together they deliver primary, secondary and tertiary care throughout inland Northern California. The UC Davis Medical Group, the health system's physician network, includes over 500 physicians and 150 areas of medical specialty geographically dispersed in 25 locations.

UCDMC is one of five teaching hospitals operated by The Regents of the University of California. UCDMC is a 612-bed, fully accredited hospital, which serves as the main clinical education site for the UCD School of Medicine. Prior to its acquisition by The Regents in 1973, the hospital was owned and operated by Sacramento County and served as the primary provider of health care to Sacramento’s medically indigent population.

UCDMC is the sole Level 1 trauma center serving the Sacramento-Sierra area and the primary tertiary care referral center for a 32-county area of more than five million residents. Each year UCDMC admits approximately 32,000 inpatients, while its 150-plus clinics log more than 828,000 outpatients and emergency visits.

**UCDHS Transfusion Service**

The **Transfusion Service at University of California, Davis Medical Center** is responsible for the pre-transfusion testing and provision of blood and blood components for the 650 -bed Level I Trauma Center.

The hospital population is made up of patients ranging from birth to 90+ years of age. The Transfusion Service provides support to University of California Davis Health System regional level 1 trauma center, Northern CA regional burn center, and Children's Hospital in addition to extra corporeal life support (ECLS), dialysis, stem cell/bone marrow transplant, progenitor cell collection, kidney transplant, pediatric and adult cardiothoracic surgery programs, in addition to routine surgery, medical and obstetric patients. We also provide blood components to our Apheresis department for exchange transfusion of TTP, sickle cell, thalassemia, and intrauterine transfusion.

The Transfusion Service prepares irradiated red blood cells and platelets for patients at risk of graft versus host disease and washes red cells for those sensitive to foreign proteins or to high potassium.

The transfusion service strives to provide the highest quality testing and component
manufacturing. The service is registered by the Food and Drug Administration (FDA), accredited by AABB/CAP and by the Centers for Medicare and Medicaid Services (CMS) under the Clinical Laboratory Improvement Amendments (CLIA) of 1988, and licensed by the State of California for Biologics. The transfusion service also participates in internal quality control programs and external quality assurance and proficiency programs, such as those provided by the College of American Pathologists (CAP).

In 2013, approximately 32,000 blood type and antibody screens, 39,060 crossmatches, and 400 antibody identifications were performed for UCDMC patients. Over 30,402 total components were transfused to UCDMC patients. This laboratory also provides reference testing services for Shriners Children’s Hospital and UC Davis Student Health Center.

The transfusion service operates 24 hours a day, seven days a week including holidays.

PROJECT SUMMARY AND GOAL

The Department of Pathology and Laboratory Medicine at the University of California, Davis Health System (UCDHS) wishes to obtain blood bank software application to support the operations of the UC Davis Medical Center Transfusion Services department.

Summary of Laboratory
The Transfusion Services department is an integral section of the Clinical Laboratory in the Department of Pathology and Laboratory Medicine located at the UC Davis Medical Center in Sacramento, California.

Laboratory Information Technology Background
Our current Laboratory Information System (LIS), Meditech, has been in use since 1988. The initial build called $T was upgraded to our current build, NPR or Magic in 1996. We have been through several versions since then and our last update occurred back on Dec.8, 2013. This last update brought our LIS in compliance with the Federal Meaningful Use Stage 2.

The Clinical Laboratory will be sun setting the current LIS, Meditech, and migrate to Epic’s Laboratory application, Beaker, in the next 3-5 years. Since Beaker does not have a Blood Bank module, Transfusion Service is in the process of vetting a stand-alone LIS-Blood Bank system that is compatible with the Epic Electronic Medical Record (EMR) and Epic Beaker LIS.

We also have utilized Meditech functionality in regards to using rules and calculations to alert users when special products are required for a patient as well as preventing users from entering an incorrect blood type or antibody screen interpretation when it doesn’t match the serological reactions. We’ve also utilized customized queries to document componenting of frozen plasma products as well as printing out ISBT128 component labels for our red cells and platelet product components.

Laboratory Testing and Scope Summary
A. The Transfusion Services routine testing includes:
   • Blood type
• Antibody screen (automated and manual gel, Peg, LISS, pre-warmed)
• Select cell antibody screen (gel, PeG, pre-warmed)
• Antibody identification
• Crossmatch (electronic, immediate spin, PeG, pre-warmed)
• Direct Coombs test
• Antibody titers (isoagglutinins, alloantibodies)
• Antigen typing (donor and recipient)
• Newborn cord blood testing

B. Ortho Diagnostics ProVue is used for automated gel antibody screens.
   Approximately 30-40% of testing is performed using automated method. The analyzer is interfaced with our LIS system, Meditech, which has greatly streamlined how we process our Type and Screens as well as minimized error in data entry.

C. Electronic crossmatch was instituted in August 2012 and approximately 85% of crossmatches are performed electronically. This has improved our crossmatch workflow and has minimized our turnaround time in providing red cell products in a timely manner. Certain patients are excluded from electronic crossmatch although they would otherwise qualify. We have provided a process for our users to exclude those patients from electronic crossmatch.

D. The Transfusion Services is registered with the FDA to perform irradiation of red cells and platelet components, wash red cells, and thaw plasma and cryoprecipitates.

E. In addition to irradiating blood components for UCDHS patients, UCDHS Transfusion Services acts as an emergency backup for our blood supplier, BloodSource, when they can't irradiate blood components. Irradiation services are provided to research clients at UCDHS and Shriners Hospital.

F. 2013 Transfusion Services Statistics:

   Core staff - 27         Thawed plasma – 4200
   Type and Screen - 31,500 Thawed cryoprecipitate (pre-pooled) – 514
   Crossmatch – 39,000
   Transfusions – 30,400
   Antibody Identifications – 366
   Trauma patients – 2600
   Red cell exchanges – 62
   Irradiated components (RBC, platelets) – 6857
   Washed RBC – 173
Goal of Request for Information

1. To obtain detailed information from Bidders regarding their experience and capabilities in successfully delivering a transfusion service system that meets the requirements of the UC Davis Health System.

2. To obtain a written proposal, pricing structures, work plans and implementation schedules, and proposed methodologies and approaches to be utilized.

3. To solicit information that will enable UCDHS to compare and evaluate Bidders' Transfusion Service system offerings to determine the optimum direction for the Health System.

4. To complete the required UCDHS IT Evaluation Process for the proposed Transfusion Services system. Refer to Section III under INFORMATION REQUESTED.
GENERAL INFORMATION

Proposed Schedule of Events

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<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>Release of Request for Information</td>
<td>July 8, 2014</td>
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<tr>
<td>Receipt of Vendor E-Mailed Questions by noon</td>
<td>July 14, 2014</td>
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<tr>
<td>UCDHS Response to Vendors' Questions by 4pm</td>
<td>July 22, 2014</td>
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<tr>
<td>Receipt of Vendors' Response to this RFI by 3pm</td>
<td>August 6, 2014</td>
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<td>On-site demos (if requested)</td>
<td>August - September 2014</td>
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Vendor Inquiries

Inquiries regarding this RFI process and the functional or technical requirements of the proposed systems must be addressed in writing by 3:00 p.m. PST on Wednesday, Aug. 6, 2014. The UCDHS contact person and address are listed below. Questions must be submitted via email.

Connie Stewart  
UCDHS Purchasing Department  
4800 2nd Avenue, Suite 3010  
Sacramento, CA 95817  
E-mail: connie.stewart@ucdmc.ucdavis.edu  
All questions/inquiries by email

Proposal Submittal Instructions

Each Bidder is required to submit their response via e-mail to:  
Connie.stewart@ucdmc.ucdavis.edu

All responses must be received in the UCDHS Purchasing Department no later than 3:00 p.m. PST on Wednesday, August 6, 2014. UCDHS Purchasing Department will not accept proposals received after the due date.

NOTE: YOUR PROPOSAL MUST INCLUDE A RESPONSE TO EVERY QUESTION AND SECTION THAT REQUESTS INFORMATION.

Following evaluation of this RFI, UCDHS may perform a formal Request for Proposal with the selected Bidders from this RFI. A presentation from vendors based on this document and the questions that arise from the information will be scheduled in August - September, 2014.
INFORMATION REQUESTED

I. CORPORATE QUALIFICATIONS

A. Please provide your company name, address, telephone and facsimile numbers, a contact name, a brief description of the company’s history, including name and address of the parent company.

B. Please address how your system fulfills the following requirements:
   1. The system has been implemented for customers who have Epic as their EMR, and specifically Epic Beaker as their Laboratory Information System. (Please indicate how many customers)
   2. The system has successfully replaced the Transfusion Services module of Meditech LIS. (Please indicate how many customers)
   3. The system meets Stage 2 Meaningful Use
   4. The system is FDA compliant (current FDA 510(k) clearance)
   5. The system supports a full range of bar code/RFID technologies including ISBT symbology
   6. The system’s technical infrastructure meets or exceeds the information technology specifications of UCDHS.
   7. The system security is role based and restricts system functions by a user’s job role.

C. What is the total number of fully operational implementations of your solution?

D. What are the sizes of the facilities where your solution is implemented?

II. SOFTWARE APPLICATION REQUIREMENTS

The UC Davis Transfusion Services laboratory requires a modern software infrastructure that will support laboratory functions, and also the needs of clients / ordering clinicians.

A. General

Please provide an overview of the general features and functionality of the proposed solution, addressing requirements for a modern Transfusion Services system that includes the following:

Regulations and Standards
   1. Is the system able to manage all procedures and testing performed on blood products and specimens within the regulations and guidelines of the AABB, CAP, FDA and Joint Commission?
   2. Is the system able to perform electronic crossmatching that is FDA compliant?

Notifications and Warnings
   3. How does the system prevent user errors? Please describe examples such as alerts, warnings, hard stops, and/or override capabilities?
4. Does the system provide user defined (customized) rules and calculations for error warnings & messages?

Labels and Bar Codes
5. Is the system able to scan and print barcode labels for specimen labels, donor unit labels (ISBT) and crossmatch tags?
6. Does the system support other barcode technologies such as 2D symbology or RFID?
7. Does the system support wireless technology (e.g., wireless handheld scanners)

Ease of Use
8. Easy to use Graphical User Interface (GUI) for laboratory clinicians and support staff
9. Data entry, editing, and storage of data using modern clinical vocabularies such as LOINC and SNOMED, with vocabulary support for interfaces and clinical reporting

Blood Products
10. Explain your system processes with respect to receiving products into inventory thru to final disposition; tracking-audit trail, modifications, and emergency issue.
11. How does your system handle autologous and donor designated units?
12. How does the system handle non-crossmatched products?
13. Does your system have a process to upload ISBT128 product codes from the ICCBAA (International Council for Commonality in Blood Bank Automation) database into your system and be able to map the respective codes to the respective product?
14. Does the system have the ability to restrict the use of a product based on testing criteria?
15. Can your system support direct ISBT label printing and can users generate custom ISBT product codes? If your system does not support direct ISBT label printing, what 3rd party vendor are you using?

Collections/Specimen Procurement
16. All lab specimen collection orders are generated in our Hospital EMR system, Epic. Explain your specimen processing routine (i.e., collection, receipt in lab, specimen expiration, etc.)
17. Explain your system specimen tracking process with respect to location as well as specimen status.

Patient Blood Bank History
18. What data is included in the internal transfusion service patient record (e.g., demographics, blood type, transfusion history, comments, etc.)
19. Which results data are automatically linked to patient transfusion service record (test based vs manually entered)?
20. Can a patient transfusion service record be manually updated at any time (e.g., with results for a patient for testing done by a referral lab or other outside source).

21. Explain system navigation to get to a patient's record (e.g., while in a patient's results screen or other function, need to navigate to patient's history record).

22. Does the system keep an audit trail of edits made to patients' histories? Are system generated edits distinguishable from manually entered edits?

Quality Control
23. Can the system enter and track reagent QC?
24. Can the system enter proficiency test specimens for CAP?

Rules and Processing
25. How does the system handle reflex testing?
26. How does the system provide for electronic crossmatch?
27. Can rules, including electronic crossmatch, be customer defined?

Results
28. Does the system allow for user-defined reaction grading and reaction phases?
29. Does the system accept and identify rare blood types?
30. Does the system allow different crossmatch methodologies and multiples of the same test?
31. Can a user easily switch between functions (e.g., leave a current session open while opening a new session/window to view a different screen/patient)?
32. How are results defined for patient populations? (neonates, status post stem cell transplant)
33. How do you result antigens on donor units and patients?
34. Does the system support batch result entry of multiple donor units and patients?
35. Ability to include smart phrases and allow shortcut or auto text key for ease in results reporting (character limitation?)
36. When are results released to the Epic EMR system?

Result Inquiry and Viewing
37. Ability to review lab-defined lab results at dispense and setup (crossmatch) without exiting to another function or switching to another window.
38. Ability to review lab-defined lab results at dispense and setup (crossmatch) without exiting to another function or switching to another window.
39. Provides patient testing history section for review such as demographics and transfusion history.
40. System has the ability to provide audit detail of patient results to include date/time collection, time of receipt, collector id, receiver id, date/time results were entered and verified and by whom, patient demographic, Epic EMR instructions comments as well as responses to product queries in the Epic EMR order.
41. Allows trending with patient's previous results.
B. Systems Integration
Please provide an overview of the “interface” features of the proposed solution using the HL7 standard, addressing the following items in your response:

1. Sophisticated bi-directional ADT and Registration interface to Epic EMR.
2. Support for Orders and Results interface to Epic EMR.
3. Support for Billing interface to Epic EMR.
4. System manages visit accounts and medical records information from Epic EMR.
5. In case of ADT interface downtime, the system is able to provide manual registration functionality.
6. Includes an Outreach module that can interface with outside lab clients.
7. Bidirectional interface with analyzers (explain if middleware such as Data Innovations is required).
8. Interface with Epic Beaker to extract lab data and link it to blood product orders.
9. Results interface includes LOINC and SnoMed code fields.

C. Reporting
Please describe the reporting capabilities included with your solution, addressing the following items in your response:

1. Standard reports included with the solution (Please provide some examples of your most common/most used reports)
2. Ad hoc querying or custom reporting capabilities.
3. Ability to save custom reports/queries for future reporting purposes.
4. Ability to extract data and export it from the system
5. Flexibility in choosing reporting frequency/timing (e.g., real time reports or scheduled reports)

D. Billing
Please describe the billing capabilities included with your solution, addressing the following items in your response:

1. Ability to bill for tests and products.
2. Billing transmittal that includes standard codes such as CPT, ICD9/10, HCPCS, and/or NDC. (Please include which codes are specifically supported in the software)
3. Ability to link billing across encounters for pre-admissions admitted to an inpatient encounter with a different financial number.
4. Ability to perform manual billing and crediting.

E. Licensing Options
Please describe licensing options, addressing the following items in your response:

1. What options exist and any rules specific to each option.
2. Flexibility and clarity in licensing

F. Implementation and Training
Please describe the implementation process, addressing the following items in your response:

1. Implementation timeline.
2. Ability for customization during implementation.
3. Resources, including individuals from your organization and their respective roles, which will be available to the UCDHS during implementation.
4. Tasks, information, resources, and time required of UCDHS to complete implementation.
5. The method by which you plan to collect data from UCDHS during the implementation process.
6. The method by which historical (legacy) laboratory orders/results data may be loaded into the system. Does vendor provide data conversion or provides a 3rd party to convert Meditech Blood Bank data?
7. Describe Validation Plan, the validation services offered and how this plan meets installation, operational, and performance qualifications.
8. The proposed processes for training UCDHS personnel so they are ready to use the system immediately post-implementation.
9. Describe all training offerings to support system implementation and operations

G. Ongoing Vendor Maintenance and Support
Respondents should include details of their product support and maintenance offerings, including:

1. All types of support offered
2. Times of day and day of week offered
3. Details of new product versions and releases
4. Report if the system requires downtime to run back-ups.
5. Report if at the time of data purges, a site can receive a CD ROM with all of their data for archiving purposes.
6. Report how much data can be lost in the worst case scenario
III. TECHNOLOGY EVALUATION

The UCDHS IT Evaluation Process is a set of activities and procedures referring to the acquisition of new applications, technology, or technology devices. It is the goal of the UC Davis Health System to ensure new applications, technology, and devices adhere to current Information Technology, Clinical Engineering, and Security standards to safeguard patient privacy, enable organizational efficiencies, and provide overall protection of health systems assets.

Please complete the following questionnaires included with the RFI:
- Preliminary Checklist
- Technology Questions
- Security Questions

These documents should be submitted as separate attachments. If a question does not apply to your product, enter N/A. Certain IT functional areas may request a conference call to receive clarification on answers if necessary.
Proposal Conditions

1. Notwithstanding any other provision of the RFI, Bidders are hereby advised that this RFI is a solicitation for information only and is not to be construed as an offer to enter into any contract or agreement.

2. UCDHS shall have the unconditional and unqualified right to withdraw, cancel, or amend this RFI at any time. Bidders shall bear all costs associated with the preparation and furnishing of responses to this RFI. All proposals shall be firm for a period of 180 days following the proposal submission due date.

3. Responses to this RFI should be made according to the instructions contained herein.

4. UCDHS reserves the right to interpret or change any provision of this RFI at any time prior to the submission date. Such interpretation or change shall be in the form of a written addendum to this RFI. Such addendum will become part of this RFI and any resultant contract. Such addendum shall be made available to each company that has received an RFI.

5. UCDHS has, at its sole discretion, the unconditional and unqualified right to determine that a time extension is required for submission of proposals, in which case, a written RFI addendum issued by UCDHS shall indicate the new submission date for proposals.

6. Prior to the final submission date, any Bidder may retrieve its information to make additions or alterations. Such retrieval, however, shall not extend the final submission date.

7. Bidders wishing to submit information in response to this request do so entirely at their own expense, and submission of a proposal indicates acceptance of the conditions contained in the RFI unless clearly and specifically noted otherwise.

8. PUBLIC INFORMATION AND TRADE SECRETS--The California Public Records Act limits UCDHS’s ability to withhold pre-qualification and bid data to trade secrets or records, the disclosure of which is exempt or prohibited pursuant to federal or state law. If a submittal contains any trade secrets that Bidder does not want disclosed to the public or used by UCDHS for any purpose other than evaluation of the Bidder's eligibility, each sheet of such information must be marked with the designation “Confidential.” UCDHS will notify the Bidder of any request, by another party, to inspect such confidential information. Bidder will have an opportunity to establish that such information is exempt from inspection in any proceeding to compel inspection.

9. All computer programs and data made available by UCDHS to Bidders hereunder shall remain the property of the UCDHS and shall be maintained, used, and disseminated in accordance with the California Information Practices Act of 1911, Civil code Sections 1798 through 1798.76, and the California Public Records Act, Government Code Section 6250 through 6260. All listings and all copies of listings that reveal names or identification numbers of individuals, (i.e., employees, patients, etc.) shall be destroyed or returned to UCDHS.
Contract Terms and Conditions

The University’s Terms and Conditions of Purchase (See Appendix A) shall apply to this Request for Information.

1. No form of the University’s name shall be used in promotional materials, signs, announcements, or other forms of communication or advertising originated by Bidder unless the University’s express written permission for such use has been obtained in advance.

2. Under existing campus policy (P & P Manual #260-15) a gift or donation to the University may not be coupled with the expectation of tangible compensation or with the imposition of contract or grant requirements. Each purchasing transaction, business contract, research contract, affiliation agreement, and grant shall be considered as separate and whole in itself. As such, it is the policy of the University of California Health System that no gift or donation to the University, nor any of its business contracts, purchasing transactions, research contracts, affiliation agreements, or grants shall be used as partial consideration for any other transaction, contract, agreement, grant or gift/donation.

As referenced herein, contracted equipment shall refer to all equipment contracted under this agreement. The title to Contracted Equipment shall at all times remain with the vendor, and the risk of loss arising due to UCDHS’s fault or negligence, or due to theft or disappearance, shall pass to UCDHS upon the date the Contracted Equipment is delivered and installed at the site. The risk of loss due to all other causes shall remain with the vendor.

3. Vendor’s equipment shall conform to manufacturer published specifications or as otherwise agreed by both parties.
Appendix A: University of California, Terms and Conditions of Purchase

ARTICLE 1 - The materials, supplies or services covered by this order shall be furnished by Seller subject to all the terms and conditions set forth in this order including the following, which Seller, in accepting this order, agrees to be bound by and to comply with in all particulars and no other terms or conditions shall be binding upon the parties unless hereafter accepted by them in writing. Written acceptance or shipment of all or any portion of the materials or supplies, or the performance of all or any portion of the services, covered by this order shall constitute unqualified acceptance of all its terms and conditions. The terms of any proposal referred to in this order are included and made a part of the order only to the extent it specifies the materials, supplies, or services ordered, the price therefore, and the delivery thereof, and then only to the extent that such terms are consistent with the terms and conditions of this order.

ARTICLE 2 - INSPECTION. The services, materials and supplies furnished shall be exactly as specified in this order free from all defects in Seller's performance, design, workmanship and materials, and, except as otherwise provided in this order, shall be subject to inspection and test by University at all times and places. If, prior to final acceptance, any services and any materials and supplies furnished therewith are found to be incomplete, or not as specified, University may reject them, require Seller to correct them without charge, or require delivery of such materials, supplies, or services at a reduction in price which is equitable under the circumstances. If Seller is unable or refuses to correct such items within a time deemed reasonable by University, University may terminate the order in whole or in part. Seller shall bear all risks as to rejected services and, in addition to any costs for which Seller may become liable to University under other provisions of this order, shall reimburse University for all transportation costs, other related costs incurred, or payments to Seller in accordance with the terms of this order for unaccepted services and materials and supplies incidental thereto. Notwithstanding final acceptance and payment, Seller shall be liable for latent defects, fraud or such gross mistakes as amount to fraud.

ARTICLE 3 - CHANGES. University may make changes within the general scope of this order in drawings and specifications for specially manufactured supplies, place of delivery, method of shipment or packing of the order by giving notice to Seller and subsequently confirming such changes in writing. If such changes affect the cost of or the time required for performance of this order, an equitable adjustment in the price or delivery or both shall be made. No change by Seller shall be allowed without written approval of University. Seller of notification of such change must make any claim of Seller for an adjustment under this Article in writing within thirty (30) days from the date of receipt unless University waives this condition in writing. Nothing in this Article shall excuse Seller from proceeding with performance of the order as changed hereunder.

ARTICLE 4 - TERMINATION
A. University may, by written notice stating the extent and effective date, cancel and/or terminate this order for convenience in whole or in part, at any time. University shall pay Seller as full compensation for performance until such termination:
(1) The unit or pro rata order price for the performed and accepted portion; and
(2) A reasonable amount, not otherwise recoverable from other sources by Seller as approved by University, with respect to the unperformed or unaccepted portion of this order, provided compensation hereunder should in no event exceed the total order price.
B. University may by written notice terminate this order for Seller's default, in whole or in part, at any time, if Seller refuses or fails to comply with the provisions of this order, or so fails to make progress as to endanger performance and does not cure such failure within a reasonable period of time, or fails to perform the services within the time specified or any written extension thereof. In such event, University may purchase or otherwise secure services and, except as otherwise provided herein, Seller shall be liable to University for any excess costs occasioned University thereby. If, after notice of termination for default, University determines that the Seller was not in default or that the failure to perform this order was due to causes beyond the control and without the fault or negligence of Seller (including, but not restricted to, acts of God or of the public enemy, acts of University, acts of Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and delays of a subcontractor or supplier due to such causes and without the fault or negligence of the subcontractor or supplier), termination shall be deemed for the convenience of University, unless University shall determine that the services covered by this order were obtainable by Seller from other sources in sufficient time to meet the required performance schedule.
C. If University determines that Seller has been delayed in the work due to causes beyond the control and without the fault or negligence of Seller, University may extend the time for completion of the work called for by this order, when promptly applied for in writing by Seller; any extension granted shall be effective only if given in writing. If such delay is due to failure of University, not caused or contributed to by Seller, to perform services or deliver property in accordance with the terms of the order, the time and price of the order shall be subject to change under the Changes Article. Sole remedy of Seller in event of delay by failure of University to perform shall, however, be limited to any money actually and necessarily expended in the work during the period of delay, solely by reason of the delay. No allowance will be made for anticipated profits.
D. The rights and remedies of University provided in this Article shall not be exclusive and are in addition to any other rights and remedies provided by law or under this order.
E. As used in this Article, the word “Seller” includes Seller and its sub suppliers at any tier.

ARTICLE 5 - LIABILITY FOR UNIVERSITY - FURNISHED PROPERTY. Seller assumes complete liability for any tooling, articles or material furnished by University to Seller in connection with this order and Seller agrees to pay for all such tooling, articles or material damaged or spoiled by it or not otherwise accounted for to University's satisfaction. The furnishing to Seller of any tooling, articles, or material in connection with this order shall not, unless otherwise expressly provided, be construed to vest title thereto in Seller.

ARTICLE 6 - TITLE. Title to the material and supplies purchased hereunder shall pass directly from Seller to University at the f.o.b. point shown, or as otherwise specified in this order, subject to the right of University to reject upon inspection.

ARTICLE 7 - PAYMENT, EXTRA CHARGES, DRAFTS. Seller shall be paid, upon submission of acceptable invoices, for materials and supplies delivered and accepted or services rendered and accepted. University will not pay cartage, shipping, packaging or boxing expenses, unless specified in this order. Drafts will not be honored. Invoices must be accompanied by shipping documents or photocopies of such, if transportation is payable and charged as a separate item.

ARTICLE 8 - CHARACTER OF SERVICES. Seller, as an independent contractor, shall furnish all equipment, personnel and material sufficient to provide the services expeditiously and efficiently during as many hours per shift and shifts per week and at such locations as the University may so require and designate.
ARTICLE 9 - FORCED, CONVICT, AND INDENTURED LABOR
A. By accepting this order, Seller hereby certifies that no foreign-made equipment, materials, or supplies furnished to the University pursuant to this order will be produced in whole or in part by forced labor, convict labor, or indentured labor under penal sanction.
B. Any Seller contracting with the University who knows or should have known that the foreign-made equipment, materials, or supplies furnished to the University were produced in whole or in part by forced labor, convict labor, or indentured labor under penal sanction, when entering into a contract pursuant to the above, may have any or all of the following sanctions imposed:
   (1) The contract under which the prohibited equipment, materials, or supplies were provided may be voided at the option of the University.
   (2) Seller may be removed from consideration for University contracts for a period not to exceed 360 days.
ARTICLE 10 - INDEMNITY.
A. General. Seller shall defend, indemnify, and hold harmless University, its officers, employees, and agents, from and against all losses, expenses (including attorneys' fees), damages, and liabilities of any kind resulting from or arising out of this agreement and/or Seller's performance hereunder, provided such losses, expenses, damages and liabilities are due or claimed to be due to the negligent or willful acts or omissions of Seller, its officers, employees, agents, subcontractors, or anyone directly or indirectly employed by them, or any person or persons under Seller's direction and control.
B. Proprietary Rights. Seller shall indemnify, defend, and hold harmless University, its officers, agents, and employees against all losses, damages, liabilities, costs, and expenses (including but not limited to attorneys' fees) resulting from any judgment or proceeding in which it is determined, or any settlement agreement arising out of the allegation, that Seller's furnishing or supplying University with parts, goods, components, programs, practices, or methods under this order or University's use of such parts, goods, components, programs, practices, or methods supplied by Seller under this order constitutes an infringement of any patent, copyright, trademark, trade name, trade secret, or other proprietary or contractual right of any third party. The foregoing shall not apply unless University has informed Seller as soon as practicable of the suit or action alleging such infringement. Seller shall not settle such suit or action without the consent of University. University retains the right to participate in the defense against any suit or action.
C. Products. Seller shall fully indemnify, defend, and hold harmless University from and against any and all claim, action, and liability, for injury, death, and property damage, arising out of the dispensing or use of any of Seller's product provided under authorized University orders. In addition to the liability imposed by law on the Seller for damage or injury (including death) to persons or property by reason of the negligence, willful acts or omissions, or strict liability of the Seller or his agents, which liability is not impaired or otherwise affected hereby, the Seller hereby assumes liability for and agrees to save University harmless and indemnify it from every expense, liability or payment by reason of any damage or injury (including death) to persons or property suffered or claimed to have been suffered through any act or omission of the Seller.
The University agrees to provide Seller with prompt notice of any such claims and to permit Seller to defend any claim or suit, and that it will cooperate fully in such defense.
ARTICLE 11 - DECLARED VALUATION OF SHIPMENTS. Except as otherwise provided on the face of this order, all shipments by Seller under this order for University's account shall be made at the maximum declared value applicable to the lowest transportation rate or classification and the bill of lading shall so note.
ARTICLE 12 - WARRANTY. Seller agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties the Seller gives to any customer for the same or substantially similar supplies or services, or such other more favorable warranties as specified in this order. The rights and remedies so provided are in addition to and do not limit any rights afforded to University by any other article of this order. Such warranties will be effective notwithstanding prior inspection and/or acceptance of the services or supplies by the University.
ARTICLE 13 - ASSIGNMENT AND SUBCONTRACTING. This order is assignable by University. Except as to any payment due hereunder, this order may not be assigned or subcontracted by Seller without written approval of University. In case such consent is given, it shall not relieve Seller from any of the obligations of this Agreement and any transferee or subcontractor shall be considered the agent of Seller and, as between the parties hereto, Seller shall be and remain liable as if no such transfer or subcontracting had been made.
ARTICLE 14 - EQUAL OPPORTUNITY AFFIRMATIVE ACTION. Seller shall not maintain or provide racially segregated facilities for employees at any establishment under its control. Seller agrees to adhere to the requirements set forth in Executive Orders 11246 and 11375, and with respect to activities occurring in the State of California, to the California Fair Employment and Housing Act (Government Code section 12900 et seq.). Expressly, Seller shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, medical condition (as defined by California Code section 12925(f)), marital status, age, physical and mental handicap in regard to any position for which the employee or applicant for employment is qualified, or because he or she is a disabled veteran or veteran of the Vietnam era. Seller shall further specifically undertake affirmative action regarding the hiring, promotion and treatment of minority group persons, women, the handicapped, and disabled veterans and veterans of the Vietnam era. Seller shall communicate this policy in both English and Spanish to all persons concerned within its company, with outside recruiting services, and the minority community at large. Seller shall provide the University on request a breakdown of its labor force by groups, specifying the above characteristics within job categories, and shall discuss with the University its policies and practices relating to its affirmative action programs.
ARTICLE 15 - The clauses contained in the following paragraphs of the Federal Acquisition Regulations are incorporated by reference. The full text is available upon request:
   FAR 52.222-04 Contract Work Hours and Safety Standards Act
   FAR 52.222-26 Equal Opportunity
   FAR 52.223-02 Clean Air and Water (If order exceeds $100,000)
ARTICLE 16 - WORK ON UNIVERSITY OR GOVERNMENT PREMISES. If Seller's work under this order involves performance by Seller at University or United States Government owned sites or facilities, the following provisions shall apply:
A. Liens. Seller agrees that at any time upon request of University he will submit a sworn statement setting forth the work performed or material furnished by subcontractors, suppliers and material men, and the amount due and to become due to each, and that before the final payment called for hereunder, will if requested, submit to University a complete set of vouchers showing what payments have been made for materials and labor used in connection with the work called for hereunder.
Seller shall:

(1) Indemnify and hold harmless University from all claims, demands, causes of action or suits, of whatever nature, arising out of the services, labor and materials furnished by Seller or its subcontractors under this order, and from all laborers’, material men’s and mechanics’ liens upon the real property upon which the work is located or any other property of University.

(2) Promptly notify University in writing, of any such claims, demands, causes of action, or suits brought to its attention. Seller shall forward with such notification copies of all pertinent papers received by Seller with respect to any such claims, demands, causes of action or suits and, at the request of University shall do all things and execute and deliver all appropriate documents and assignments in favor of University of all Seller's rights and claims growing out of such asserted claims as will enable University to protect its interest by litigation or otherwise. The final payment shall not be made until Seller, if required, shall deliver to University a complete release of all liens arising out of this order, or receipts in full in lieu thereof, as University may require, and if required in either case, an affidavit that as far as he has knowledge or information, the receipts include all the labor and materials for which a lien could be filed; but Seller may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to University to indemnify it against any claim by lien or otherwise. If any lien or claim remains unsatisfied after all payments are made, Seller shall refund to University all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorneys' fees.

B. Cleaning Up. Seller shall at all times keep University premises where the work is performed and adjoining premises free from accumulations of waste material or rubbish caused by its employees or work of any of its subcontractors, and, at the completion of the work; shall remove all rubbish from and about the building and all its and its subcontractors’ tools, scaffolding, and surplus materials, and shall leave the work “broom clean” or its equivalent, unless more exactly specified. In case of dispute between Seller and the subcontractors employed on or about the structure or structures upon which the work is to be done, as herein provided, as to responsibility for the removal of the rubbish, or in case the same be not promptly removed as herein required, University may remove the rubbish and charge the cost to Seller.

C. Employees. Seller shall not employ on the work any unfit person or anyone not skilled in the work assigned to him or her, and shall devote only its best-qualified personnel to work under this order. Should University deem anyone employed on the work incompetent or unfit for his or her duties and so inform Seller, Seller shall immediately remove such person from work under this order and he or she shall not again, without written permission of University, be assigned to work under this order.

It is understood that if employees of University shall perform any acts for the purpose of discharging the responsibility undertaken by the Seller in this Article 15, whether requested to perform such acts by the Seller or not, such employees of the University while performing such acts shall be considered the agents and servants of the Seller subject to the exclusive control of the Seller.

D. Safety, Health and Fire Protection. Seller shall take all reasonable precautions in the performance of the work under this order to protect the health and safety of employees and members of the public and to minimize danger from all hazards to life and property, and shall comply with all health, safety, and fire protection regulations and requirements (including reporting requirements) of University. In the event that Seller fails to comply with said regulations or requirements of University, University may, without prejudice to any other legal or contractual rights of University, issue an order stopping all or any part of the work; thereafter a start order for resumption of work may be issued at the discretion of the University. Seller shall make no claim for extension of time or for compensation or damages by reason of or in connection with such work stoppage.

The safety of all persons employed by Seller and its subcontractors on University premises, or any other person who enters University premises for reasons relating to this order, shall be the sole responsibility of Seller. Seller shall at all times maintain good order among its employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him or her. Seller shall confine its employees and all other persons who come onto University's premises at Seller's request or for reasons relating to this order and its equipment to that portion of University's premises where the work under this order is to be performed or to roads leading to and from such work sites, and to any other area which University may permit Seller to use.

To the extent compliance is required; Seller shall comply with all University safety rules and regulations when on University premises.

ARTICLE 17 - INSURANCE

Seller shall defend, indemnify, and hold the University, its officers, employees, and agents harmless from and against any and all liability, loss, expense (including reasonable attorneys’ fees), or claims for injury or damages that are caused by or result from the negligent or intentional acts or omissions of Seller, its officers, agents, or employees.

Seller, at its sole cost and expense, shall insure its activities in connection with the work under this order and obtain, keep in force, and maintain insurance as follows:

A. Comprehensive or Commercial Form General Liability Insurance (contractual liability included) with limits as follows:

<table>
<thead>
<tr>
<th>Type of Insurance</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each Occurrence</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Products/Completed Operations Aggregate</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Personal and Advertising Injury</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>General Aggregate (Not applicable To the Comprehensive Form)</td>
<td>$2,000,000</td>
</tr>
</tbody>
</table>

If the above insurance is written on a claims-made form, it shall continue for three years following termination of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the effective date of this Agreement.

B. Business Automobile Liability Insurance for owned, scheduled, non-owned, or hired automobiles with a combined single limit not less than $1,000,000 dollars ($1,000,000) per occurrence.

(REQUIRED ONLY IF SELLER DRIVES ON UNIVERSITY PREMISES IN THE COURSE OF PERFORMING WORK FOR UNIVERSITY.)

C. Professional Liability Insurance with a limit of not less than $500,000 Dollars ($). If this insurance is written on a claims-made form, it shall continue for three years following termination of this Agreement.
Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the effective date of this Agreement.

D. Workers' Compensation as required by California State law.

It is understood that the coverage and limits referred to under a., b., and c. above shall not in any way limit the liability of Seller. Seller shall furnish the University with certificates of insurance evidencing compliance with all requirements prior to commencing work under this Agreement. Such certificates shall:

1. Provide for thirty (30)-days advance written notice to the University of any Modification, change, or cancellation of any of the above insurance coverage.
2. Indicate that The Regents of the University of California has been endorsed as an additional insured for the coverage referred to under a. and b. This provision shall only apply in proportion to and to the extent of the negligent acts or omissions of Seller, its officers, agents, or employees.
3. Include a provision that the coverage will be primary and will not participate with nor be excess over any valid and collectible insurance or program of self-insurance carried or maintained by the University.

ARTICLE 18 - PERMITS. Seller agrees to procure all necessary permits or licenses and abide by all applicable laws, regulations and ordinances of the United States and of the state, territory and political subdivision in which the work under this order is performed. Seller shall be liable for all damages and shall indemnify and save University harmless from and against all damages and liability which may arise out of failure of Seller to secure and pay for any such licenses or permits or to comply fully with any and all applicable laws, ordinances and regulations.

ARTICLE 19 - COOPERATION. Seller and its subcontractors, if any, shall cooperate with University and other vendors and contractors on the premises and shall so carry on their work that other cooperating vendors and contractors shall not be hindered, delayed or interfered with in the progress of their work, and so that all of such work shall be a finished and complete job of its kind.

ARTICLE 20 - WAIVER OF DEFAULT. Any failure of University at any time, or from time to time, to enforce or require the strict keeping and performance by Seller of any of the terms or conditions of this order shall not constitute a waiver by University of a breach of any such terms or conditions and shall not affect or impair such terms or conditions in any way, or the right of University at any time to avail itself of such remedies as it may have for any such breach or breaches of such terms or conditions.

ARTICLE 21 - TAXES. Seller shall pay all contributions, taxes and premiums payable under federal, state and local laws measured upon the payroll of employees engaged in the performance of work under this order, and all applicable sales, use, excise, transportation, privilege, occupational and other taxes applicable to materials and supplies furnished or work performed hereunder and shall save University harmless from liability for any such contributions, premiums, and taxes.

ARTICLE 22 - OTHER APPLICABLE LAWS. Any provision required being included in a contract of this type by any applicable and valid federal, state or local law, ordinance, rule or regulations shall be deemed to be incorporated herein.

ARTICLE 23 - GOVERNING LAW. The law of the State of California shall control this Appendix and any document to which it is appended.

UCDMC ARTICLE 1 – Medicare Books, Documents and Records. To the extent required by applicable law, Seller shall make available, upon written request from University, the Secretary of Health and Human Services, the Comptroller General of the United States, or any other duly authorized agent or representative, this Agreement and Seller’s books, documents and records. Seller shall preserve and make available such books, documents and records for a period of four (4) years after the end of the term of the Agreement. If Seller is requested to disclose books, documents or records pursuant to the Section for any purpose, Seller shall notify University of the nature and scope of such request, and Seller shall make available, upon written request of University, all such books, documents or records. If Seller carries out any of the duties of this Agreement through a subcontract with a related organization (“Subcontractor”), with a value or cost of Ten Thousand Dollars ($10,000) or more over a twelve (12) month period. Such subcontract shall contain a clause to the effect that until the expiration of four (4) years after the end of the term of such subcontract, the related organization shall make available, upon written request from the Secretary of Health and Human Services, or upon request by the University, Comptroller General of the United States, or any other duly authorized agent or representatives, the subcontract and Subcontractor’s books, documents and records of such organization that are necessary to verify the nature and extent of such costs.