



INVITATION TO QUOTE

FOR THE
SUPPLY AND DELIVERY OF
HIGH PERFORMANCE LIQUID CHROMATOGRAPH
to the
DEPARTMENT OF SURGERY

Company Registration No. 200604346E

SUPPLY AND DELIVERY OF HIGH PERFORMANCE LIQUID CHROMATOGRAPH TO THE DEPARTMENT OF SURGERY, YONG LOO LIN SCHOOL OF MEDICINE, NATIONAL UNIVERSITY OF SINGAPORE

Instructions to Vendors

1. The National University of Singapore invites your quotation for the above as further described in the Requirement Specifications and in accordance with all the terms and conditions stated in this Invitation to Quote (ITQ).
2. Please read and examine the following documents as contained in this ITQ carefully. Kindly stamp and acknowledge on each page of the Conditions of Contract, Compliance Table for Requirement Specifications, Contract Price Schedule, Schedule of Rates and Track Record Table

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| 1 | Instructions to Vendors |
| 2 | Conditions of Contract |
| 3 | Annex A – Requirement Specifications and Evaluation Criteria |
| 4 | Annex B1 – Contract Price Schedule |
| 5 | Annex B2 – Schedule of Rates |
| 6 | Annex C – Track Record table |

3. The Vendor must complete the following documents:

- | | |
|---|--|
| 1 | Annex A – Requirement Specifications and Evaluation Criteria |
| 2 | Annex B1 – Contract Price Schedule |
| 3 | Annex B2 – Schedule of Rates |
| 4 | Annex C – Track Record table |

and submit no later than **4.00pm (Singapore Time) on the closing date** together with and as part of the ITQ Document, all relevant and supportive data and information such as performance records, certificates of excellence, etc. and on the subject matter of the ITQ including leaflets, catalogues etc. containing a description of and technical data on the Goods.

4. Unless otherwise stipulated in Clause 3 of the Instructions to Vendor, your quotation must be electronically submitted through the Electronics Procurement System (EPS) SESAMi via the website at <https://sesami.online/nus> by the stipulated closing date and time.
5. The ITQ amount should be GST-exclusive. The Vendor shall be deemed to be a taxable person if no declaration to the contrary is made in the ITQ.
6. If your ITQ is accepted, you will be responsible for carrying out and complete the supply of all items of Goods and perform the Services accordingly to the Conditions of Contract.
7. The University shall not be bound to accept the lowest, the whole or any part of the offered quotation.
8. If the vendors have any queries of any nature whatsoever on any aspect of the quotation documents, please email the following **no later than 3 working days before closing date**:

➤ **For specifications queries:**

Joseph Ho
Research assistant
Surgical Proteomics Laboratory
Institute for Health Innovation & Technology (iHealthtech)
MD6, 14 Medical Drive, #14-02, Singapore 117599
Email: Surjhjr@nus.edu.sg
Mobile: +65 91595150

➤ **For other queries:**

Mark Christopher Tan
Senior Executive (Procurement)
Dean's Office, Yong Loo Lin School of Medicine,
National University of Singapore
Email: medmctan@nus.edu.sg
Phone: 66012177

9. When submitting questions, please clearly state your vendor's contact details and the invitation to quote (ITQ) reference number provided by Yong Loo Lin School of Medicine.
10. Vendors are advised to study this Invitation to quote very carefully before finalizing their offer(s) for submission. The onus is on the vendors to ensure that a complete offer is submitted.
11. NUS shall not entertain any request made after the quotation has closed for bid variation or submission of additional quotes for items left out in the original submission on any ground whatsoever. The vendors shall be solely responsible for all such omissions/errors.
12. Vendors are advised to submit their proposals early to avoid failure due to heavy traffic near closing date/time. Please note that it is the responsibility of the suppliers to ensure the successful submission of their quotations in SESAMi by the closing of the ITQ.
13. Line Items and Cost Breakdown:
 - i) To exclude GST in the price quoted and the currency quoted should be in Singapore Dollars (SGD);
 - ii) If the Vendors have more than 1 alternative proposal for the line item, please use the "Add Alternative Offer" function in SESAMi to enter these additional details; and
 - iii) Please select a "No-quote" in SESAMi if any of the items is complimentary.

CONDITIONS OF CONTRACT FOR QUOTATIONS

1. DEFINITIONS

- 1.1 In these Conditions, unless the context otherwise requires:
- (a) **"Conditions"** means these terms and conditions in this Conditions of Contract for Quotations.
- (b) **"Confidential Information"** means any and all information at any time disclosed to the Contractor by or on behalf of the University in writing or orally, in drawings or in any other form, or acquired by the Contractor from the University, and all data derived therefrom, relating to the Contract, the University, any clients or business partners of the University, its students, staff, alumni, and donors, and whether of a scientific, commercial, technical, procedural nature or otherwise except to the extent that such knowledge or information:
- (i) is or becomes part of public knowledge or literature as evidenced by printed publication or otherwise provided such public disclosure is not through a breach of the confidentiality obligations of the Contractor hereunder; or
- (ii) is or has been lawfully disclosed, furnished or made known to the Contractor by any third party who is not under an obligation of confidentiality to the University.
- (c) **"Contract"** includes the University's Invitation To Quote issued through the EPS or other means, the Contractor's Quotation (defined below) or offer (submitted through the EPS or other means), these Conditions, the specifications and samples, letter of acceptance, order message or any purchase orders issued by the University to the Contractor, for the supply of the Goods and/or performance of Services.
- (d) **"Contract Price"** means the price exclusive of the Singapore Goods and Services Tax payable to the Contractor for the full and proper performance by the Contractor of his part of the Contract as determined under the provisions of the Contract and in law.
- (e) **"Contractor"** means the successful supplier who has been awarded the Contract by the University.
- (f) **"EPS"** means the eProcurement system or portal used by the University to carry out the procurement of Goods and/or Services electronically.
- (g) **"EPS T&C"** means the terms and conditions of the EPS provider governing the use of the EPS.
- (h) **"Goods"** means all goods, including parts or units thereof, which the Contractor is required to supply under the Contract.
- (i) **"Services"** means the work that the Contractor is required to perform under the Contract.
- (j) **"University"** means National University of Singapore, acting through its faculty, department or research institute calling the ITQ, and includes any officer authorised by the University to act on its behalf.

2. INVITATION AND ACCEPTANCE OF QUOTATION

- 2.1 By submitting a quotation (**"Quotation"**) to an Invitation To Quote (**"ITQ"**) issued by the University, the Contractor is deemed to have agreed to these Conditions, and any Quotation that attempts to vary these Conditions is liable to be rejected. In the event of any conflict or inconsistency between these Conditions and the Quotation, these Conditions shall prevail.
- 2.1A The University may conduct negotiations for the ITQ. Any elimination of suppliers from participating in the negotiations will be carried out in accordance with the evaluation criteria set out in the ITQ. When negotiations are concluded, a common deadline will be provided for the remaining participating suppliers to submit any new or revised Quotations.
- 2.2 The Quotation shall constitute an offer by the Contractor to supply the Goods and/or perform the Services.
- 2.3 The issue by the University of a letter of acceptance or order, accepting the Quotation or part of the Quotation shall create a binding contract on the part of the Contractor to supply to the

University the Goods and/or the Services (or such part thereof that is the subject of the acceptance) at the price/s stated in the Quotation. For the avoidance of doubt, until the University issues a Letter of Acceptance, an order message, or purchase order, this document (i) is not a contract and shall in no way be construed as creating any legally binding obligation to purchase any Goods and/or Services from any supplier; and (ii) shall not be construed as providing or implying that a contract will be entered into with any supplier.

- 2.4 Upon the acceptance by the University of the Quotation, these Conditions shall govern the Contract between the University and the Contractor. In the event of any conflict or inconsistency between these Conditions and the EPS T&C, these Conditions shall prevail.

- 2.5 The University reserves the right to award the Quotation in whole, in part, or not to accept the Quotation at all. The University is not obliged to accept the lowest or any Quotation, nor is the University obliged to provide any reasons for non-acceptance of a Quotation.

- 2.6 The University reserves the right to amend any terms in, or to issue supplementary terms to the ITQ at any time prior to the closing date of the ITQ.

3. SCOPE OF CONTRACT

- 3.1 The Contractor shall carry out and complete the supply of all items of Goods and/or perform the Services in accordance with the Contract, to the exclusion of any other terms and conditions on which any Quotation has been given. Unless otherwise stated in the Contract, all Goods shall be new and unused.
- 3.2 Without limiting the generality of clause 3.1, the Contractor shall:-
- (a) supply and do all things including but not limited to provision of equipment, materials, personnel and transportation required for the proper performance and completion of the Contract that are necessary or reasonably to be inferred from the Contract, whether or not particularly described in the Contract, or which may contingently become necessary to overcome difficulties before completion;
- (b) carry out and complete the supply of Goods and/or the performance of the Services with due diligence, efficiency, skill and workmanship expected of a supplier supplying similar goods and services;
- (c) comply with the practices and standards of the industry of the Contractor; and
- (d) comply with all applicable laws and regulations.

4. DELIVERY

- 4.1 The Contractor shall deliver the Goods and perform the Services by the delivery and/or performance date (if any, specified in the ITQ or the Contract) and in the manner specified in the Contract.
- 4.2 Time shall be of the essence in the Contract for delivery of the Goods and/or the performance of the Services.
- 4.3 If the Contractor fails to deliver or perform by the date specified in the Contract, the University reserves the right to cancel all or any such items of Goods and/or Services from the Contract without compensation and purchase from other sources, and any additional costs incurred shall be deducted from any moneys due or to become due to the Contractor or shall be recoverable from the Contractor as damages.
- 4.4 The University is entitled to reject any goods or services not delivered or performed according to the requirements stated in the University's ITQ (including without limitation, in description, quantity or quality) without incurring any liability to the Contractor.
- 4.5 The Contractor shall at his own cost and when notified in writing by the University, remove and replace the Goods that are found on delivery to be damaged, defective or in any way inferior to approved samples, or not in accordance with the Contract, failing which the University shall have the right to purchase replacements elsewhere or to make good any damage in any manner it deems necessary and all costs thereby incurred shall be recoverable from the Contractor by deduction from any money due to the Contractor under the Contract. The receipt of

the Goods or Service shall in no way relieve the Contractor from his responsibility for replacing defective or damaged Goods or for rectifying deficient Services.

- 4.6 Title to the Goods shall pass from the Contractor to the University upon successful completion of any acceptance testing, or if there is no acceptance testing, upon delivery to the University at the location specified in the Contract. The risk of loss and damage to the Goods shall only pass from the Contractor to the University after the Goods have been received by the University in Singapore. Where Goods are received by the Contractor for the purpose of modification, replacement, repair or rectification, the risk of loss or damage to the Goods shall be borne by the Contractor until the Goods are re-delivered and received by the University.

5. WARRANTY

- 5.1 Unless otherwise agreed in the Contract, the warranty period shall commence on the date of receipt of the Goods and on the date of acceptance of the Services in Singapore. The length of the warranty period shall be twelve (12) months or such period as agreed in writing.
- 5.2 During the warranty period, if any Good(s) is found:
- (a) to be defective in design, materials or workmanship; or
 - (b) not to be in accordance with the Contract or any specifications incorporated in the Contract by written agreement or by reference or otherwise; or
 - (c) having been installed, operated, stored and maintained in accordance with the written instructions of the Contractor, to have failed to function properly or failed to meet any performance guarantees or specifications published or otherwise provided by the Contractor as applicable to the Good(s);

then unless it is shown that the foregoing is caused solely by improper use or mishandling by the University, the Contractor shall, at its own expense (including transportation costs), at the written notification of the University, replace, rectify or completely repair the damaged or defective Good(s), within thirty (30) days of the date of the written notification or within such time as may be agreed between the Contractor and the University. The warranty period for the replacement or repaired Goods shall be extended by a period equivalent to the period commencing from the date of the notification to the date of acceptance of the repaired or replaced Goods by the University in Singapore. In the event that the warranty period (after such extension) outstanding at the date of acceptance is less than one month, the warranty period shall be extended by a further period of one month.

- 5.3 During the Warranty Period, if any Service performed is found to be deficient, the Contractor shall at the written notification of the University, re-perform the same, at the expense of the Contractor within thirty (30) days of receipt of the University's written notification or within such time as mutually agreed in writing between parties. The warranty period for the re-performed Service shall be extended by a period equivalent to the period commencing from the date of the notification to the date of completion of the re-performed Service. In the event that the warranty period (after such extension) outstanding at the date of completion is less than one month, the warranty period shall be extended by a further period of one month.

6. PAYMENT

- 6.1 Within thirty (30) days from the date of receipt of the Contractor's invoice in respect of any Goods delivered and Services performed in accordance with Clause 4 of these Conditions, provided the invoice has been issued in accordance with the manner and in such format as may be specified by the University, and provided further that no part of the invoice is in dispute, the University will make payment to the Contractor of the Contract Price of the Goods so delivered and Services so performed provided that no payment shall be considered as evidence of the quality of any Goods and Services to which such payments relate nor shall it relieve the Contractor from his responsibilities under the Contract.
- 6.2 Where the University and the Contractor have agreed in writing to delivery of the Goods or Services in parts, payment will be made in respect of each such partial delivery in accordance with Clause 6.1.

7. TERMINATION

- 7.1 Either party may terminate this Contract immediately by written notice to the other if the other is unable to pay its debts or enters into compulsory or voluntary liquidation or compounds with or convenes a meeting of its creditors or has a receiver or manager or an administrator appointed or ceases for any reason to carry on business or takes or suffers any similar action which in the opinion of the party giving notice means that the other may be unable to pay its debts or perform this Contract satisfactorily.
- 7.2 The University may terminate this Contract by giving at least seven (7) days' notice in writing to the Contractor where the Contractor has breached or failed to observe any term of this Contract or generally failed to perform his obligations in the manner contemplated under this Contract, and has failed to remedy the failure or default within a period of fourteen (14) days from the receipt of notice in writing by the University requiring the Contractor to do so.
- 7.3 Notwithstanding sub-clauses (1) and (2) above, the University may terminate this Contract without assigning any reason by giving the Contractor not less than fourteen (14) days prior written notice and in the event of any such termination, the Contractor shall be paid a pro-rated amount based on the Services completed or Goods delivered as at the effective date of termination and the Contractor shall thereafter be entitled to no further compensation.
- 7.4 Upon the expiry or termination of the Contract for any reason, the Contractor shall immediately cease the use of any materials and/or information provided by the University and shall return the same to the University unless notified in writing to the contrary by the University.

8 CONFIDENTIALITY

- 8.1 The Contractor shall hold and keep in strictest confidence any and all Confidential Information, and shall not disclose the Confidential Information to any person except as permitted under these Conditions or with the prior written consent of the University. The Contractor undertakes to use the Confidential Information only for the purposes of performing the Contract.
- 8.2 The Contractor shall only disclose the Confidential Information to those of its employees or contractors who are directly involved in and who have a need to know for the purposes of performing the Contract, and provided that each of these employees or contractors are made aware of the confidentiality obligations in respect of the Confidential Information and have given a written undertaking to strictly observe the confidentiality obligations under this Contract as if those obligations were imposed on him or her directly. In any event, the Contractor shall be responsible for any breach of the confidentiality obligations hereunder by its employees or contractors and shall take all measures (including but not limited to court proceedings) to restrain such employees or contractors from prohibited or unauthorised disclosure or use of the Confidential Information.
- 8.3 The Contractor shall not copy or reproduce the Confidential Information in any form whatsoever except to the extent necessary for the purposes of performing the Contract.
- 8.4 At the University's request, the Contractor agrees to promptly return to the University any and all Confidential Information or destroy such Confidential Information.
- 8.5 The Contractor shall not publish any news releases, publicity or marketing materials or make references, statements, or announcements concerning the Contract or the University, including without limitation, the existence of the Contract, without the prior written consent of the University.
- 8.6 The Contractor shall immediately advise the University of any unauthorised disclosure, misappropriation or misuse by any person of any Confidential Information, upon the Contractor having knowledge of the same.
- 8.7 The provisions under this Clause 8 shall survive the termination or expiration of the Contract and remain in full force and effect.

9. INTELLECTUAL PROPERTY

9.1 Unless expressly agreed in writing by the University, the Contractor shall not be entitled to use any licence, patent, copyright, trade secrets or any other industrial or intellectual property right ("**Intellectual Property (IP)**") owned or used by the University, which shall remain vested in and the absolute property of the University.

9.2 Unless otherwise expressly agreed in writing by the University all right, title and interests in any IP which result from or are generated pursuant to or created for the purposes of this Contract shall vest in the University. The Contractor shall assign or do all things necessary to procure the assignment of such IP to the University absolutely.

9.3 For the avoidance of doubt, any IP in any results, report, data or information generated or produced by the University or another person on behalf of the University as a result of this Contract shall be owned by the University.

10. GIFTS, INDUCEMENTS AND REWARDS

10.1 The University may terminate the Contract and recover from the Contractor the amount of any loss resulting from such termination, if the Contractor shall have offered or given or agreed to give to any person any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the obtaining or execution of the Contract with the University or for showing or forbearing to show favour to any person in relation to any Contract with the University, or if the like acts shall have been done by any person employed by the Contractor or acting on his behalf (whether with or without the knowledge of the Contractor) or if in relation to any Contract with the University the Contractor or any person employed by him or acting on his behalf shall have committed any offence under Chapter IX of the *Penal Code* or *Prevention of Corruption Act* or shall have abetted or attempted to commit such an offence or shall have given any fee or reward the receipt of which is an offence under Chapter IX of the *Penal Code* or the *Prevention of Corruption Act*.

11. INDEMNITY

11.1 The Contractor agrees to indemnify, defend and hold the University harmless from and against any and all liabilities, damages, losses, claims, suits or judgments, and expenses (including reasonable legal fees) that the University may incur for injury or death of persons and damage to the University's property, equipment or facilities or the property of any other person in any manner arising out of the Contractor's provision of the Goods and/or Services, as applicable.

12. GENERAL

12.1 Rights of Third Parties.

A person who is not a party to this Contract shall have no right under the Contracts (Rights of Third Parties) Act to enforce any of its terms.

12.2 Sub-contracting and Assignment.

(a) The Contractor shall not sub-contract or assign the Contract without the prior written consent of the University. The University shall be entitled to assign and/ or transfer its rights and obligations under this Contract to any of its related or associated companies without the prior written consent by the Contractor.

(b) Notwithstanding any permitted sub-contracting or assignment or transfer of the Contract, the Contractor shall remain solely responsible for the performance and completion of its obligations under the Contract. Any act, omission, breach or non-compliance of the Contract by the subcontractors shall be deemed to be the act, omission, breach or non-compliance, as the case may be, of the Contractor whether or not authorised by the Contractor.

12.3 Variation.

No variation whether oral or otherwise in the terms of this Contract shall apply unless such variation shall have first been expressly

accepted in writing by the Contractor and the authorised contract signatory of the University.

12.4 Governing Law and Jurisdiction.

The Contract shall be subject to, governed by and interpreted in accordance with the laws of the Republic of Singapore for every purpose. The Contractor submits to the exclusive jurisdiction of the courts of the Republic of Singapore.

12.5 Waiver.

No failure or delay on the part of the University to exercise any right or remedy under this Contract shall be construed or operate as a waiver thereof nor shall any single or partial exercise of any right or remedy as the case may be.

13. INCOTERMS

13.1 When used in the Contract, 'Incoterms' means INCOTERMS® 2010 published by the International Chamber of Commerce, which shall be deemed to be incorporated into and form an integral part of the Contract. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in the Contract, but if there is any conflict between the provisions of Incoterms and the Contract, the latter shall prevail.

14. PERSONAL DATA PROTECTION

14.1 The Contractor shall comply with the Personal Data Protection Act 2012 of Singapore ("**PDPA**") and all subsidiary legislation related thereto (collectively "**Data Protection Legislation**") with regard to any and all personal data (as defined in the PDPA) that it receives from the University.

14.2 The Contractor agrees that when dealing with personal data received from the University, it shall:

- (a) only use personal data in accordance with the purposes for which the University has disclosed the personal data, in accordance with the instructions of the University or as is necessary for the University to fulfill its obligations under the Data Protection Legislation;
- (b) take appropriate technical and organisational measures to protect personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access and against all other unlawful forms of processing. Such measures shall ensure a level of security appropriate to the risks represented by the processing and the nature of the data to be protected, having regard to the state of the art and the cost of implementation;
- (c) give the University notice in writing as soon as reasonably practicable should it be aware of, or reasonably suspect, that any of the events referred to in Clause 14.2(b) has occurred and shall promptly take all steps necessary to remedy the event and prevent its re-occurrence;
- (d) not retain personal data for any longer than is necessary for the purposes for which the University disclosed the personal data;
- (e) limit disclosure of such personal data to its employees on a need to know basis and only for the purposes of processing for which such personal data was disclosed by the University;
- (f) not to disclose or transfer any personal data received from the University to any third party without the prior written approval of the University, and upon such additional terms and conditions which the University may impose on it for such disclosure or transfer; and
- (g) where the personal data is to be transferred to another country, to not do so unless the consent of the individual whose personal data is to be transferred to another country has been obtained except where an exception to such consent under the PDPA applies. Further, where the personal data is to be transferred to another country, to take any such additional measures as are necessary to secure that personal data is transferred in accordance with the requirements of the Data Protection Legislation.

- 14.3 Notwithstanding anything to the contrary, the Contractor shall indemnify and at all times hereafter to keep the University indemnified against any and all losses, damages, actions, proceedings, costs, claims, demands, liabilities (including full legal costs on a solicitor and own client basis) which may be suffered or incurred by the University or asserted against the University by any person, party or entity whatsoever, in respect of any matter or event whatsoever arising out of, in the course of, by reason of or in respect of any breach of any of the provisions in this Clause.

REQUIREMENT SPECIFICATIONS AND EVALUATION CRITERIA**A) Scope of ITQ**

Invitation to Quote for supply and delivery of one (1) standalone High-Performance Liquid Chromatograph (HPLC).

B) Requirement Specification

Provide one (1) HPLC with the following minimum specifications:

- 1) Solvent delivery system
 - a) Equipped with vacuum degasser with 4 number of channels with maximum flow rate of 10 ml/min
 - b) Dual plunger in series pump with servo-controlled variable stroke drive, floating plungers and active inlet valve
 - c) Adjustable flow range of 0.001 – 10 ml/min, in 0.001 ml/min increments
 - d) Flow range of 0.2 – 10.0 ml/min
 - e) Flow precision <0.3 % RSD (typically 0.15%), based on retention time at 1 ml/min
 - f) Pressure operating range of 0 – 400 bar for flow rate up to 5 ml/min and 0 – 200 bar for flow rate up to 10 ml/min
 - g) Pressure pulsation <2% amplitude (typically <1%), at 1ml/min isopropanol, at all pressure > 1 MPa (10 bar)
 - h) Equipped with user-selectable compressibility compensation, based on mobile phase compressibility
 - i) Gradient formation shall be low pressure quaternary mixing/gradient capability using proprietary high-speed proportioning valve
 - j) Delay volume of 800 – 1100 µL, dependent on back pressure
 - k) Display composition range 0 – 95 % or 5 – 100 %, user selectable
 - l) Composition precision <0.2 % RSD, at 0.2 and 1 ml/min
- 2) Sample Introduction System/Autosampler
 - a) Safety features such as leak detection and safe leak handling, low voltages in maintenance areas, error detection and display
 - b) Injector range of 0.1 - 100µL in 0.1 µL increment
 - c) Enable replicate injection 1 – 99 from one vial
 - d) Precision of typically < 0.5 % RSD of peak areas from 5 - 100µL, and typically < 1% of RSD of peak areas from 1 - 5µL
 - e) Able to draw minimum sample volume of 1µL from 5µL sample in 100µL microvial, or 1µL from 10µL sample in 300µL microvial
 - f) Demonstrate low carryover of typically < 0.1%, <0.05% with external needle cleaning
 - g) Able to take sample with viscosity range of 0.2 – 50 cp
 - h) Sample capacity of 100 x 2-ml vials in 1 tray, 40 x 2-ml vials in ½ tray
 - i) 50s injection cycle time
- 3) Thermostated Column Compartment
 - a) Column compartment with temperature range of 10 degree below ambient to 80°C
 - b) Temperature stability ±0.15°C
 - c) Temperature accuracy ±0.8°C
 - d) Able to fit three 30cm columns
 - e) The time taken to warm up/cool down, shall be 5 minutes from ambient to 40°C and 10 minutes from 40 - 20°C
- 4) Variable Wavelength Detector
 - a) Double-beam photometer detection type
 - b) Deuterium lamp as light source
 - c) Wavelength range of 190 – 600nm
 - d) Demonstrate short term noise of $\pm 0.75 \times 10^{-5}$ AU at 254nm
 - e) Show drift of 3×10^{-4} AU/hr at 254 nm
 - f) Linearity of > 2AU (5%) upper limit
 - g) Display wavelength accuracy of ± 1 nm
 - h) It shall have typical bandwidth of 6.5 nm

- 5) Fraction Collector
 - a) It shall be capable of these trigger modes : Time slices, Peak, Timetable
 - b) It shall be compatible with :
 - i) 4 x well-plates full tray (for use with deep well plates, only)
 - ii) 2 x well-plates full tray (for use with deep well plates, only) + 10 x 2 ml vials
 - iii) 100 x 2 ml vials
 - iv) 3 x 40 x 2 ml in half tray
 - v) 3 x 15 x 6 ml on half tray
 - vi) Full tray with 40 test tubes (30mm OD)
 - vii) Full tray with 60 test tubes (25mm OD)
 - viii) Full Tray with 126 test tubes (16mm OD)
 - ix) Full Tray with 215 test tubes (12mm OD)
- 6) PC for equipment operation
 - a) OS: Windows 10
 - b) Installed with all software required for operation control for all modules equipped, data acquisition and data processing
- 7) HPLC May be new or refurbished
 - a) If refurbished, HPLC should be in good working condition with no damage to all parts and components which may affect function of HPLC in any way.
 - b) Any cosmetic damage (e.g. scratches, paint peeling, etc...) should be minimal
- 8) Services and Warranty
 - a) The refurbished system shall come with one-year warranty
 - b) The warranty shall cover parts and unlimited breakdown calls
 - c) Vendor shall have the service capability/track record of to service such instruments and at least for another 5 years etc.
 - d) Vendor shall offer optional item for PM and BD service agreements after expiry of the warranty
 - e) Provide after sales support for breakdown calls, respond within 24hours and provide repair/maintenance within 1 week or less within warranty period
- 9) DDP Delivery terms
- 10) Installation and commissioning on customer's premises
- 11) The contractor shall provide all necessary test equipment, instruments and labor for the delivery, installation, testing and commissioning of the proposed system.
- 12) Provide hands-on training for unlimited users
- 13) Able to accept 30-day payment terms from delivery of equipment

C) Compliance table

Item	Specifications	Supplier to indicate compliance (Y/N) with details
1	Solvent delivery system	a) Y / N
	a) Equipped with vacuum degasser with 4 number of channels with maximum flow rate of 10 ml/min	b) Y / N
	b) Dual plunger in series pump with servo-controlled variable stroke drive, floating plungers and active inlet valve	c) Y / N
	c) Adjustable flow range of 0.001 – 10 ml/min, in 0.001 ml/min increments	d) Y / N
	d) Flow range of 0.2 – 10.0 ml/min	e) Y / N
	e) Flow precision <0.3 % RSD (typically 0.15%), based on retention time at 1 ml/min	f) Y / N
	f) Pressure operating range of 0 – 400 bar for flow rate up to 5 ml/min and 0 – 200 bar for flow rate up to 10 ml/min	g) Y / N
	g) Pressure pulsation <2% amplitude (typically <1%), at 1ml/min isopropanol, at all pressure > 1 MPa (10 bar)	h) Y / N
	h) Equipped with user-selectable compressibility compensation, based on mobile phase compressibility	i) Y / N
	i) Gradient formation shall be low pressure quaternary mixing/gradient capability using high-speed proportioning valve	j) Y / N
	j) Delay volume of 800 – 1100 µL, dependent on back pressure	k) Y / N
	k) Display composition range 0 – 95 % or 5 – 100 %, user selectable	
	l) Composition precision <0.2 % RSD, at 0.2 and 1 ml/mini) Gradient formation shall be low pressure quaternary mixing/gradient capability	

	using proprietary high-speed proportioning valve	l) Y / N
2	Sample Introduction System/Autosampler a) Safety features such as leak detection and safe leak handling, low voltages in maintenance areas, error detection and display b) Injector range of 0.1 - 100µL in 0.1 µL increment c) Enable replicate injection 1 – 99 from one vial d) Precision of typically < 0.5 % RSD of peak areas from 5 - 100µL, and typically < 1% of RSD of peak areas from 1 - 5µL e) Able to draw minimum sample volume of 1µL from 5µL sample in 100µL microvial, or 1µL from 10µL sample in 300µL microvial f) Demonstrate low carryover of typically < 0.1%, <0.05% with external needle cleaning g) Able to take sample with viscosity range of 0.2 – 50 cp h) Sample capacity of 100 x 2-ml vials in 1 tray, 40 x 2-ml vials in ½ tray i) 50s injection cycle time	a) Y / N b) Y / N c) Y / N d) Y / N e) Y / N f) Y / N g) Y / N h) Y / N i) Y / N
3	Thermostated Column Compartment a) Column compartment with temperature range of 10 degree below ambient to 80°C b) Temperature stability ±0.15°C c) Temperature accuracy ±0.8°C d) Able to fit three 30cm columns e) The time taken to warm up/cool down, shall be 5 minutes from ambient to 40°C and 10 minutes from 40 - 20°C	a) Y / N b) Y / N c) Y / N d) Y / N e) Y / N
4	Variable Wavelength Detector a) It shall be a double-beam photometer detection type b) It shall be equipped with deuterium lamp as light source c) Wavelength range shall be 190 – 600nm d) It shall demonstrate short term noise of ± 0.75 x 10⁻⁵ AU at 254nm e) It shall show drift of 3 x 10⁻⁴ AU/hr at 254 nm f) It shall have linearity of > 2AU (5%) upper limit g) It shall display wavelength accuracy of ± 1 nm h) It shall have typical bandwidth of 6.5 nm	a) Y / N b) Y / N c) Y / N d) Y / N e) Y / N f) Y / N g) Y / N h) Y / N
5	Fraction Collector a) It shall be capable of these trigger modes : Time slices, Peak, Timetable b) It shall be compatible with : i) 4 x well-plates full tray (for use with deep well plates, only) ii) 2 x well-plates full tray (for use with deep well plates, only) + 10 x 2 ml vials iii) 100 x 2 ml vials iv) 3 x 40 x 2 ml in half tray v) 3 x 15 x 6 ml on half tray vi) Full tray with 40 test tubes (30mm OD) vii) Full tray with 60 test tubes (25mm OD) viii) Full Tray with 126 test tubes (16mm OD) ix) Full Tray with 215 test tubes (12mm OD)	a) Y / N b) Y / N i. Y / N ii. Y / N iii. Y / N iv. Y / N v. Y / N vi. Y / N vii. Y / N viii. Y / N ix. Y / N
6	PC for equipment operation a) OS: Windows 10 b) Installed with all software required for operation control for all modules equipped, data acquisition and data processing	a) Y / N b) Y / N
7	HPLC May be new or refurbished	a) Y / N

	a) If refurbished, HPLC should be in good working condition with no damage to all parts and components which may affect function of HPLC in any way. b) Any cosmetic damage (e.g. scratches, paint peeling, etc...) should be minimal	b) Y / N
8	Services and Warranty a) The refurbished system shall come with one-year warranty b) The warranty shall cover parts and unlimited breakdown calls c) Vendor shall have the service capability/track record of to service such instruments and at least for another 5 years etc. d) Vendor shall offer, as an option, 1 year PM and BD service agreements after expiry of the warranty e) Provide after sales support for breakdown calls, respond within 24hours and provide repair/maintenance within 1 week or less within warranty period	a) Y / N b) Y / N c) Y / N d) Y / N e) Y / N
9	DDP delivery terms	Y / N
10	The contractor shall provide all necessary test equipment, instruments and labor for the delivery, installation, testing and commissioning of the proposed system.	Y / N
11	Provide hands-on training for unlimited users	Y / N
12	Able to accept 30-day payment terms from delivery of equipment	Y / N
13	Supplier must indicate the names, contact numbers, qualifications and experience of the technical support team. A separate attachment may be used if necessary	Y / N
14	Suppliers must indicate their offered service level standards for the categories below: a) Immediate Response: Successful supplier shall be on site within [] hours of receiving NUS' phone call. <i>Immediate Support will be provided:</i> From [] am/pm to [] am/pm [] days a week throughout the year <u>including/excluding (delete one) public holidays and weekends</u> b) Urgent Response: Successful supplier shall be on site within [] hours of receiving NUS' phone call <i>Urgent Support will be provided:</i> From [] am/pm to [] am/pm [] days a week throughout the year <u>including/excluding (delete one) public holidays and weekends</u> c) Non Urgent Response: Successful supplier shall be on site within [] working days of receiving NUS' phone call. <i>Non urgent service support will be provided:</i> From [] am/pm to [] am/pm [] days a week throughout the year <u>including/excluding (delete one) public holidays and weekends</u> Examples of three types Responses include but are not limited to the following: Immediate Response: Any event that has resulted in inability for the device to function. Urgent Response: Any event that has resulted in marked decrease in performance of the device. Non Urgent Response: Any event that has adversely affected performance of the device but not significantly prevented normal functioning. The supplier shall ensure that it has a dedicated hotline for NUS to call for support or services under this Agreement.	Suppliers must indicate their service level standards in the column on the left.
15	Complete delivery, testing and commissioning within four to six weeks of award.	

D) Evaluation Criteria

The following criteria will be used in the evaluation of the Quotation:

S/N	Criteria	Evaluation Weightage (%)
1	Compliance with requirements specifications	40
2	Price Competitiveness	20
3	Track record	20
4	Service level standards and technical support provided	20

CONTRACT PRICE SCHEDULE

1. The Contractors must refer to Requirement Specifications for the detailed scope of deliverables.
2. The Contractors to enclose the price breakdown of the contract price (If applicable)

S/N	Item Description	Unit of Measurement	Quantity	Unit Price	Total Price	Remarks
1	HPLC equipment	Unit	1			
2	Option for PM and breakdown service contract	Year	1			
Total Price (excluding Singapore Goods and Services Tax)						

Name/Designation

Signature and Date

Company Stamp

SCHEDULE OF RATES

1. The Contractors must refer to Requirement Specifications for the detailed scope of deliverables.
2. The Contractors to enclose the price breakdown of the contract price (If applicable)

S/N	Item Description	Unit of Measurement	Unit Price	Remarks
1	Other parts and consumables (if any)			To be listed and broken down clearly

Name/Designation

Signature and Date

Company Stamp

TRACK RECORD TABLE

Suppliers to indicate their track record of similar installed equipment over the past 3 years. A separate attachment may be used if there is insufficient space.

<u>S/N</u>	<u>Institution</u>	<u>Number of models installed</u>	<u>Model of equipment installed</u>	<u>Value of project</u>	<u>Year</u>	<u>Client's Name</u>	<u>Client's Contact</u>
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
<u>Total Value:</u>				<u>S\$</u>			