



CORRIGENDUM

No. DUHS/DP/2019/Cor-1/ 74 Dated 10 May 2019

**PROCUREMENT OF
LC-MSMS BASED ON TQD AND UPLC WITH NECESSARY
SOFTWARE**

N.I.T No. DUHS/DP/2019/74 Dated 26 April 2019

G: Corrected / Modified Technical Specifications

Item No.	Name of Goods, Technical Description, Specifications and Standards	
01.	LCMS/MS	
	Quantity: 01 No.	
	Country of Origin: USA / Japan / Europe	
	1.1	Pump specifications
	1.1.1	Quaternary pump designed to blend 4 solvents
	1.1.2	pump have integrated degasser
	1.1.3	Flow rate: 0.1-2ml/min
	1.1.4	pump pressure: 800 bar or above
	1.2	Auto-sampler specifications
	1.2.1	Multi-rack sampler: capacity upto 300 sample vial or above
	1.2.2	Injection volume: 0.1-300µl
	1.2.3	Sample manager temp range 4°C to 40 °C
	1.2.4	Integrated cooling system in auto-sampler.
	1.2.5	Auto-sampler must have an option to shade from light.
	1.2.6	Sample vial quantity : 1ml graduated sample vial (5 boxes x 100pcs) = 2 boxes for amber colored vial & 3 boxes for plain glass
	1.2.7	3 boxes of inserter (0.5ml Inserter with round bottom shape)
	1.2.8	10 pack of syringe filter with 1 c.c. syringe
	1.3	Column oven
	1.3.1	Temperature range: 20-90°C
	1.3.2	3 Columns of C18 (50mm x 4.6mm) 1.8µm
	1.3.3	3 Columns of C8 (50mm x 4.6mm) 1.8µm
	1.3.4	2 guard column pack with guard column holder compatible with analytical columns
	1.4	Software Mechanism
	1.4.1	The software must be able to store each analytical method including instruments set points, data acquisition, data evaluation and reporting parameters as one analytical specifications.
	1.4.2	The software must provide a single point of control for all of the instrument features and functionality of MSMS.
	1.4.3	The software must allow the system to run unattended, and it must be capable of monitoring the instrument during acquisition and recording both instruments performance parameters.
1.4.4	A log record when and who modified methods.	
1.4.5	The software must allow programmed shutdown of the instrument, including the lamps in the detector.	
1.4.6	Built-In application method libraries for multiple application for Bio-equivalence study, able to set LCMS/MS chromatographic condition by itself.	

Item No.	Name of Goods, Technical Description, Specifications and Standards	
	1.5	MSMS Configuration
	1.5.1	Mass range: 5-1400 m/z or better
	1.5.2	Mass analyzer: Triple Quadrupole (Q3)
	1.5.3	Scan speed: 10,000 Dal or better
	1.5.4	Scan Type: to be performed at the same time as acquiring full screen spectra in positive and negative ion mode.
	1.5.5	Ion source: ESI & APCI
	1.5.6	MRM Sensitivity ESI +ve= 30,000:1, 1pg of reserpine signal to noise.
	1.5.7	MRM Sensitivity ESI -ve= 10,000:1, 1pg of Chloramphenicol signal to noise.
	1.5.8	Mass Resolution:0.7 Dal or better
	1.5.9	Collision cell technology MS/MS Quantitative analysis.
	1.5.10	Detector: Photomultiplier or equivalent
	1.6	Accessories & Services
	1.6.1	DQ, IQ, OQ & PQ to be performed by the vendor with complete documentation.
	1.6.2	Training: 2 person foreign training (operational, software and trouble shooting training) , local training at door step
	1.6.3	10KVA online UPS system with one year warranty service and three years additional service without parts.
	1.6.4	Vendor must provide one year standard warranty service for equipment and 2 years extended warranty services with parts replace.
	1.6.5	3 years calibration services.
	1.6.6	Ion source cleaning kit.
	1.6.7	Tuning compound (standards of Reserpine and Chloramphenicol)
	1.6.8	Nitrogen generator with dry air
	1.6.9	Argon gas cylinder with regulator (Purity: 99.99%)
	1.6.10	compatible branded computer system with LED & printer.
	1.6.11	All other necessary accessories for equipment running.

SPECIAL NOTE:

- i. Item-wise / Feature-wise product compliance / deviation statement must be attached.
- ii. Confirm delivery period must be provided.
- iii. Port of Shipment and Country of origin of “MAJOR PART(S) OF THE EQUIPMENT” must be clearly reflected separately in the Technical and Financial bids. The “Origin” means the place where the “goods” are mined, grown, or produced.
- iv. The above specifications are only for widest possible competition and not for favor any single contractor or supplier nor put others at a disadvantage. However, the brand name, catalogue No. / Name etc. has only been used for the reference purpose. Goods offered “AT LEAST EQUIVALENT OR BETTER QUALITY” to requisite specifications shall also be considered.
- v. Equipment must be quoted with all the standard accessories.

- vi. UPS/Power protection for the equipment shall be incorporated in the systems, otherwise prices must be quoted separately.
- vii. All the civil works and allied services will be carried-out by the Dow University of Health Sciences, Karachi with the consultation of the responsive bidder.
- viii. All site specific work to be required in the system viz. Lead Glass/special antistatic flooring, environment control/radiation protection must be quoted separately.
- ix. The bidder shall separately quote the price of service contract inclusive of parts as well as excluding the parts for 5 years (minimum) in term of %age for total contract value.