

**Global Tender Notification for procuring "Lab Scale Fast Protein Liquid Chromatography (FPLC) System" at the Molecular Biophysics Unit/NMR Research Centre, Indian Institute of Science, Bangalore**

Dear Sir/Madam,

May 28, 2021

**Sub: Lab Scale Fast Protein Liquid Chromatography (FPLC) System**

**This is a global tender notification meant for the purchase of a "Lab Scale Fast Protein Liquid Chromatography (FPLC) System"** towards the purpose of purifying protein samples using ion-exchange, affinity, size-exclusion or similar chromatographic methods. Your quotation should clearly indicate the terms and conditions of the quotation, delivery schedule, entry tax, payment terms, warranty coverage etc. The quotation should be submitted in two parts: **Part I (Technical bid) and Part II (Commercial bid)** and both should be submitted in separate sealed envelopes. The Technical bid should be exactly the same as the Commercial bid except that prices must not be shown in the Technical bid. The Technical bid should have an item-wise compliance report of all specifications indicated below. Prices quoted should be inclusive of all taxes and duties and should be inclusive of delivery of the items to the site and installation and should include both INR quotes with appropriate GST included. The last day for submitting the bid is June 15<sup>th</sup>, 2021. The offer should be valid for a period of at least 60 days from the last date of submission of quotes.

The bid should address the following technical specifications for the FPLC system, accessories and controlling software:

1. The system should be able to support all the following chromatography techniques: Affinity Chromatography, Ion-Exchange chromatography, Size-Exclusion Chromatography & Hydrophobic Interaction Chromatography
2. The system should have an operating flow rate between 0.01 ml/min to 25 ml/min.
3. The system should have an operating pressure reading range between 0 to 5MPa, with an accuracy of  $\pm 2\%$ .
4. The system should have one pump of type: Piston pump, metering type having Titanium/bio inert pump head.
5. The system should be capable of creating a gradient between 0-100%.
6. The system should have inlets with a minimum of 3 ports for buffer and 1 port for sample, as well as outlets with a minimum of 3 ports.
7. The system should have the option of software-controlled column bypass/up flow/downflow connections.
8. The system should have the option of adding a pH valve with integrated flow restrictor which can be by-passed by the software.
9. The system should have the option of connecting a pH probe for post column position with an accuracy of  $\pm 0.1$  pH with a pH monitoring range between 0-14 & pH valve with integrated pressure sensor.
10. The system should have a temperature integrated conductivity meter, post column position with range of 0.01-999.99 mS/cm and accuracy of  $\pm 2.0\%$ .

11. The system should have the capability to detect at 280 nm with the following UV-Vis parameters: a UV range of at least -6 to +6 AU with noise of less than 0.1 mA and minimum UV linearity of  $\pm 5.0\%$
12. The delay volume of the system should be less than 230  $\mu\text{L}$ .
13. The system to have the option of adding an I/O Box for connecting any external equipment to the system such as an autosampler or detectors for measurement of refractive index, light scattering, and fluorescence
14. The system should be provided with a Fraction collector capable of supporting tubes of different sizes like 3mL, 8mL, 15mL and 50mL. should be able to collect 150-200 fractions per fraction collector.
15. The system should be supplied with all accessories like tubings, connectors, ferrules for smooth running of the system.
16. The system should have inbuilt feature to decrease the flow rate automatically when a run is performed in cold room or at low temperature.
17. The system software should be technically compatible with all relevant sections of FDA 21CFR Part11 and developed as per GAMP 5 guidelines.
18. The system software should have a mirror backup feature to back up the data automatically which can be used at the time of system failure.
19. The system software should also have a feature of system audit trail, electronic signatures, and electronic records.
20. The system software should have an inbuilt feature to queue up various purification methods for attended purification.
21. The system must have provision of an in-built data recovery.

For the FPLC system and software, the participating firms must quote all-inclusive delivery prices and the entire shipment must be insured from the manufacturer's warehouse to the installation site at IISc.

**Important: Please note that the FPLC system should match all technical specifications and item-wise compliance must be listed in a detailed document in the technical bid**

The documents may be addressed to the Chairman, Molecular Biophysics Unit (Kind attention: Dr Ashok Sekhar), Indian Institute of Science, Bangalore 560 012. Last date for receiving queries is June 8<sup>th</sup>, 2021. Please email ashoksekhar@iisc.ac.in. The last date for submission of bids is June 15<sup>th</sup>, 2021.

Thanking You,

Sincerely

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