

**Local Tender Notification from Indian Original Equipment Manufacturer (OEM)  
or their Indian authorized distributor for procuring  
"Microfluidics Based Synthesis System" at the Molecular  
Biophysics Unit, Indian Institute of Science, Bangalore**

February 12, 2024

Dear Sir/Madam,

**Sub: Microfluidics Based Synthesis System.**

This is a domestic tender notification meant for the purchase of "Microfluidics Based Synthesis System." Your quotation should clearly indicate the terms and conditions of the quotation, delivery schedule, entry tax, payment terms, and warranty coverage. 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. The last day for submitting the bid is March 6, 2024. The offer should be valid for a period of at least 90 days from the last date of submission of quotes. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor. The quotations should be on FOR-IISc Bangalore basis in INR only.

The bid should address the following technical specifications for the **Microfluidics based synthesis system**:

1. 1x Pressure controller: 2 channels 0/8000 mbar
2. 2x Flow sensors:
  - a. 0.2 to 5 mL/min for the aqueous phase
  - b. 0.2 to 3 mL/min for the organic phase (ethanol)
3. Mixing chip with data proving liposomes and nanoparticle production capabilities with it
4. 1x Set of reservoirs (1.5 mL to 50 mL)
5. All the required set of tubing, fittings and connectors for the system
6. Software to control the system and log the data compatible with the Windows 8 or 10 based computer system.
7. Capable of generating LNPs of size in the range of at least 40-150nm.
8. Capable of formulation of lipid nanoparticles (LNPs), liposomes, and polymeric nanoparticles using a microfluidic chip.
9. Capable of using reusable and cleanable microfluidic chips.
10. Use of pressure-driven control for microfluidic flow control.
11. Accessible volumes from 0.5 mL up to 100 mL of final solution.
12. Possibility to set up a feedback loop control between the pressure-driven controller and flow sensors for best stability and performance.
13. Capability to use ethanol as solvent.
14. Ability to log the synthesis data onto a computer.
15. Possibility of upgrading the system later to change flow sensors or add valves for automation.

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

1. The Bidder should belong to either Class-1 or Class-2 suppliers distinguished by their “local content” as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter. a) Class-1 supplier: Goods and services should have local content of equal to or more than 50%. b) Class-2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
2. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
3. Purchase preference as defined by the recent edits to GFR (within the “margin of purchase preference”) will be given to the Class-1 supplier.
4. MSMEs can seek an exemption to some qualification criteria. IISc follows GFR2017 for such details.

The documents may be addressed to the Chairman, Molecular Biophysics Unit (Kind attention: Prof. Raghavan Varadarajan), Indian Institute of Science, Bangalore 560 012. Last date for receiving queries is February 20, 2024. Please email [varadar@iisc.ac.in](mailto:varadar@iisc.ac.in). The last date and time for submission of bids is 5:00 PM, March 6, 2024.

Thanking You,  
Sincerely  
Prof. Raghavan Varadarajan  
Molecular Biophysics Unit  
Indian Institute of Science  
Bangalore 560 012  
Karnataka, India  
Phone: 91 80 2293 3373