

Global Tender Notification
"Lipid Nano Particle (LNP) formulation System" at the Molecular
Biophysics Unit, Indian Institute of Science, Bangalore

IISc- GTE-2024-342

May 16, 2024

Dear Sir/Madam,

Sub: Lipid Nano Particle (LNP) formulation System.

This is a global tender notification meant for “Lipid Nano Particle formulation System” with the technical specifications/general compliance mentioned below. 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 should include all taxes as well as associated charges for CIP Bangalore. The last day for submitting the bid is June 07, 2024. 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 specifications for the **Lipid Nano Particle (LNP) formulation System**:

Important: Please note that the Lipid Nano Particle (LNP) formulation System should match all specifications listed below and shown to be manufactured within the country.

1. An automated System for developing Lipid Nano Particle encapsulation of RNA/DNA molecules by providing a simple, fast, and easy to use platform with familiar workflows, easing technology transfer and simplifying scale-up.
2. The system should have a mixer designed to create reproducible, homogeneous, and fast mixing conditions to produce high-quality nanoparticle formulations.
3. The system should provide platform model unit operations with process control and reproducibility.
4. The System Should have scalable process parameters across all models allowing straight forward scale up towards clinical development and commercial manufacture.
5. The System should be able to generate mRNA-LNPs in the size range of 60-120 nm for mRNA's that are 0.5-15 kb long.
6. **Electrical and Environmental conditions**
Electrical: 100-240 VAC, 4A
Operating Temperature: 15 to 35 Degree Celsius
7. **System Performance Specifications**
Flow rate: 0.1 mL/min to 20 mL/min
Total Formulation capacity: 1ml to up to 20ml non-diluted, and up to 50ml diluted.
Flow Rate Ratio of 1:1 to 10:1
8. The System should have touch screen interface designed to allow scientists to efficiently develop and optimize nanoparticle formulations.

9. The System should be recipe driven with batch to batch and user to user reproducibility to enable efficient collaborations between users, groups, labs, and industrial researchers across sites with reproducibility across scales facilitates transfer of academic discoveries to Industrial partners.
10. The System should have the capacity to store up to 10 standard recipes to be used again and again, and history log.
11. System should be compatible with Accessories/ Ancillary equipment like Waste/Sample collection devices of common makes/models available in the market.
12. The System should have direct fluid handling connections to eliminate complex fluid connections and reduce reagent waste.
13. The System should have third inlet capability to represent dilution required for process scale-up.
14. The Technical Bid should preferably include the number of installations across the globe and the number of publications which have used the equipment.

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 May 23, 2024. Please email varadar@iisc.ac.in. The last date and time for submission of bids is 5:00 PM, June 07, 2024.

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