



## MAHATMA GANDHI UNIVERSITY

MGU/DST-FIST/SBS/ETEN/2019/SD

Dated: 15/05/2019

### **NOTICE INVITING TENDER**

(Tender No. MGU/DST-FIST/SBS/ETEN/2019/SD)

**The Registrar, Mahatma Gandhi University, Kottayam** for and on behalf of **The Coordinator, DST FIST Project, School of Biosciences, Mahatma Gandhi University** invites online bid (technical and financial bid) for Supply and Installation of the scientific equipment **Spray drier with encapsulator** from reputed firms.

1	Name of the scientific equipment	Spray drier with Encapsulator
2	Earnest money deposit (EMD)	25000/-
3	Tender submission fee	3750/- + GST
4	Period of supply and installation	Within 90 days from the L/C opening date
5	Mode of submission of Bid	Online
6	Tender Documents	Can be downloaded from the website <a href="http://www.etenders.kerala.gov.in">www.etenders.kerala.gov.in</a>
7	Last date and Time of submission of tender by online	25/05/2019, 4.00 pm
8	Date and time of opening of bid opening	28/05/2019, 11.00 am

General tender documents and tender schedule can be downloaded in A<sub>4</sub> plain size paper free of cost from the website [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in).

Documents to be submitted along with bid through online.

Sl.No	Through online
1	Scanned copy of dealership certificate
2	Scanned copy of duly filled e-payment form
3	Scanned copy of other certificates required, if any, for tender acceptance
4	Scanned Copy of duly filled preliminary Agreement in stamp paper of Rs.200/-
5	BOQ

## **Specification for Spraydrier with encapsulator**

The instrument should offers bio-encapsulation of cells and microbes and heat sensitive bioactive molecules under mild and sterile conditions in a reaction vessel.

- Liquid pumping should be done by the integrated syringe pump or by air pressure.
- Control unit should have regulation of vibration frequency, electrostatic dispersion, syringe pump and magnetic stirrer.
- Power consumption – Max.150W
- Connection Voltage – 100-240 VAC
- Frequency – 50/60Hz
- Should be GMP compliant.

### **-Syringe pump**

- Max. allowed air pressure – 1.5bar
- Pump Rate: 0.01 – 50ml/min
- Pump Rate by air pressure: 0.5 – 200ml/min
- Flow rate calibration

### **-Set of 8 single nozzles of stainless steel**

- 0.08, 0.12, 0.15, 0.2, 0.3, 0.45, 0.75 and 1.0 mm diameter
- Nozzle diameter of shell Nozzles 0.20,0.30, 0.40, 0.50, 0.60 0.70 and 0.90mm
- Droplet size range 0.15 to 2.00 mm or better
- Vibration Frequency 40 – 6,000 Hz
- Electrode Tension – 250-2500 V
- Particle Diameter range – 1-25 $\mu$ m
- Mean residence time – 1-1.5 secs
- Pollution degree – 2
- Installation category - II
- Should produce beads as well as capsules

### **-Reaction vessel as such with the instrument**

- Reactor Gross volume: 4.5 litres
- Reactor working volume: 2 litres
- Autoclavable
- GMP compliant surface treatment of stainless steel

### **-Pressure bottles**

- 500 and 1000 ml glass volume with working pressure up to 1.5 bar
- Magnetic stirrer for gentle stirring which fits under reaction vessel
- If any Essential Consumables, vessels and any other items are required for proper operation, it should provide with the instrument.
- 3 year compulsory warrantee

### **-Optional**

- GMP compliant documentation for reaction vessel validation including sealing set
- Concentric nozzle set for one step core/shell capsule production
- Other optional accessories.
- Additional extended 2year warrantee also may be Quoted.

### **Special Conditions**

1. Instrument should have a **warrantee of at least three years** and should have frequent visits from both service engineer and application scientist.
2. There should be at least one service engineer and one application scientist based in India with onsite training facility on the same quoted instrument. Training should include operation, preparation, handling and maintenance of system.
3. A good record in supply and service to other research institutes will be considered as a positive point for a particular company. User list of similar equipment supplied recently in India should be provided with the above mentioned specifications.
4. Laboratory floor space, electrical power requirements, earthing, room temperature/ humidity requirements etc. should be mentioned appropriately.
5. All necessary accessories should be supplied with the instrument, as per standard package offered, including complete set of service and operation manuals for diagnosis, trouble shooting, maintenance and electronic circuitry (soft copies).
6. The Delivery Schedule, Payment Terms & Warranty/Guarantee etc must be clearly indicated in the technical bid.
7. The basic price to be entered in BOQ should be inclusive of all taxes, freight, loading & unloading and installation charges.
8. The bids will be opened at the date and time specified. Further details can be had from **The Coordinator, DST FIST Project, School of Bio Sciences M.G. University, Kottayam, Kerala Pin-686560**, on all working days during working hours. Phone: **0481-2731035 E-mail: bio.sc.office@gmail.com**. The bidders are advised to submit their bid well in advance to avoid any kind of network issues.

The undersigned reserves the right to reject any or all the tender without assigning any reason whatsoever.

**Registrar**