

Ref No: RAIC/2025/07/234

# **NIT (Notice Inviting Tender)**

Bids are invited in sealed envelopes for laboratory equipment on behalf of Registrar Nims University for the ongoing ICMR project entitled "Establishment of Centre for Advanced Research for Bacteriophage Research and Therapy to Combat Multidrug-Resistant Infections Caused by ESKAPE Pathogens" (Project Code: N-I-P-01)

## List of Equipment/Consumables

| S. No. | Equipment/Consumables               |
|--------|-------------------------------------|
| 1      | MinION MK1D device with Accessories |
| 2      | Consumables for nanopore sequencing |

The quotation subscribed as (N-I-P-01/NIT-04) addressed to Registrar, Hotam Admin Block Nims University, Rajasthan, should be sent via speed post or courier latest by 15 days after the opening of the tender (in separate envelops for equipment and consumables in two bid system, with the same NIT number "N-I-P-01/NIT-04").

Time of closing of the bid:

24/July/ 2025, 13:00

Time of opening of the bid:

24/July/ 2025, 15:00

Bid system:

2 bid system

EMD:

Not Applicable

#### **Terms and Conditions:**

Compatibility chart to be provided with all the bids.

The bids will be submitted separately in two envelops with same NIT number.

After receiving of the PO supplier need to provide the equipment's within 45 -60 days. Delay in delivery will be claimable for a penalty of 100 Rs/day.

Safe delivery of the required equipment to Nims University will be sole responsibility of the supplier.



### 1. EQUIPMENT

### Specifications:

Name of the Equipment/ Instrument: - Portable DNA / RNA Sequencer

Make: Oxford Nanopore Technologies PLC., U.K.

#### Model: MinION MK1D

- Compatible for both DNA/ RNA based sequencing applications such as whole genome sequencing, Targeted sequencing, Metagenomics (16S and Whole genome metagenome), RNA sequencing and Methylation with additional benefit of Direct RNA sequencing and Methylation data from whole genome sequence data without going for bisulphite conversion or additional library preparation protocol.
- 2. Is portable and has a small footprint, USB C installation ports, MinION drivers installed, designed to sequence at 10 35 degrees C.
- 3. MinION MK1D can run Flongle or MinION flow cells with the added advantage of reusability of the flow cells. Each flow cell can generate a theoretical data output of up to 50 Gb. The read length is from short to ultra-long i.e. 15 Kb 4 Mb.
- 4. Having options for flexible workflows, **PCR-free library** preparation protocols and multiplexing of up to 96 samples in a single flow using barcodes.
- 5. The sequencer system to generate standard output formats: FAST5 and/or FASTQ which is compatible for all downstream analysis software.
- 6. EU declaration of conformity for harmonized standards and technical specifications have been applied.
- 7. MinION MK1D needs to be connected to a workstation. The workstation should have the following component specifications:

| Component                      | Specification  |  |
|--------------------------------|--|--|
| Operating system               | Windows-10/11 OR Ubuntu 24.04 LTS  |  |
| Memory/RAM 32 GB RAM or higher |  |  |
| CPU                            | Intel i7 or i9 or Xeon or better (12-cores or higher)  |  |
| GPU                            | NVIDIA RTX 4090  |  |
| Storage                        | 2 TB SSD or higher   |  |
| Peripheral                     | USB Type-C (USB 2.0 or higher)   |  |
| Warranty                       | 5-year comprehensive license & warranty  |  |
| Bioinformatic                  | The workstation will be provided with at least 1-year license for a  |  |
| Software                       | GUI based bioinformatic software for Nanopore long read data analyses with special emphasis on microbial genomics. |  |

- 8. Qubit 4 Fluorometer with NGS Starter Kit (Cat: Q33240)
- 9. Gentle rotator mixer with following specifications:



- a. Adjustable speed range up to 100 rpm
- b. Can be used at temperature range: 4°C to 40°C
- c. Should be capable of continuous or timed operation
- d. Should be capable of rotations: orbital (end-over-end), reciprocal (tilting) and vortexing individually or in combination
- e. The platform can accommodate microcentrifuge/centrifuge tubes ranging from 0.5 to 50 mL
- 10. Magnetic rack with following specifications:
  - a. Optimal working volume should be 10-2,000 μL
  - b. Should be capable to hold at least 16 standard 1.5–2 mL microcentrifuge tubes with numbered sample spaces
  - c. Detachable top rack for resuspension, manual sample shaking, or vortexing as necessary
- 11. Comprehensive warranty for 5 years after installation of the equipment
- 12. Comprehensive wet lab training to be provided for the library preparation and Nanopore sequencing
- 13. Only authorized suppliers from nanopore will be entertained

## 2. Consumables for nanopore sequencing

| Oxford Nanopore Reagents       |                     |                  |
|--------------------------------|---------------------|------------------|
| Consumables                    | Brand/Catalogue No. | Qty.<br>required |
| R10.4.1 flow cells             | FLO-MIN114          | 2                |
| Flow Cell Wash Kit             | EXP-WSH004          | 2                |
| Native Barcoding Kit 24 V14    | SQK-NBD114.24       | 1                |
| Control Expansion Kit          | EXP-CTL001          | 1                |
| 16S Barcoding Kit 24 V14       | SQK-16S114.24       | 1                |
| Rapid Adapter Auxiliary V14    | EXP-RAA114          | 1                |
| Sequencing Auxiliary Vials V14 | EXP-AUX003          | 1                |
| Flow Cell Priming Kit V14      | EXP-FLP004          | 1                |

Kindly stuck with the specifications.

Prof (Dr.) Mahaveer Singh

Director,

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