
	<p>पादप कार्यिकी संभाग          DIVISION OF PLANT PHYSIOLOGY          भा.कृ.अ.प.—भारतीय कृषि अनुसंधान संस्थान          ICAR-Indian Agricultural Research Institute          नई दिल्ली—110012 (भारत)          NEW DELHI - 110 012 (INDIA)</p>	
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File No.51-5/NS/GET(12-197-B)/Pl.Phy.

Dated: 13-01-2025

**NOTICE FOR E-PROCUREMENT THROUGH GeM**

Online GeM e- bid are invited from reputed Manufacturere/Supplier/Authorized dealer in two bid system (Technical and Financial) for purchase of scientific equipment **Nanopore Sequencer with Accessories, Qty. 01 No. for Genome Editing Project** on behalf of Director, ICAR-Indian Agricultural Research Institute, New Delhi. Please visit [www.iari.res.in](http://www.iari.res.in) for details Rules and Regulation and log in [www.gem.gov.in](http://www.gem.gov.in) for online e-bidding.

Details of Gem Bid is/are as mentined below:

GeM Bid No.	<b>GEM/2025/B/5815100</b>
Bid Submission start date and time	13-01-2025
Last Date & Time for submission of bid	04-02-2025 15.00
Date & Time for opening of Technical Bid	04-02-2025 15.30

**Sd/-  
Asstt.Admn.Officer**

DIVISION OF PLANT PHYSIOLOGY  
ICAR- INDIAN AGRICULTURAL RESEARCH INSTITUTE  
NEW DELHI- 110012

REQUISITION OF THE PURCHASE OF STORES

**Nanopore sequencer with accessories**

**Specifications:**

1. Sequencing chemistry should be based on the advanced sensing technology and involves direct molecular analysis of DNA/ RNA.
2. Offering the flexibility of independently controllable, high-output flow cells and leveraging state-of-the-art algorithms and GPU technology with added advantage of flow cells re-usability.
3. High through-put sequencer that generates data output from 300-350 GB /run with data streamed in real time for immediate analysis — ideal for large-scale sequencing projects.
4. Simple plug and play device and need a minimal IT infrastructure, small footprint, suitable for any lab.
5. Reads length from short to ultra-long (>4 Mb) reads with an average read length of 15Kb and above.
6. Should generate >100 million reads for cDNA transcripts with single run.
7. Having Raw read accuracy for >Q20 (>99%) and around Q30 (99.9%) Duplex Sequencing which is comparable or far better than other sequencing platforms.
8. Should be compatible for both DNA/ RNA based sequencing applications such as Whole Genome Human, Plant & Animal, Targeted sequencing, Metagenomics (16S and Whole genome metagenome), Population scale sequencing, 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 prep protocol.
9. Simple and Rapid workflows, PCR-free library preparation protocols and multiplexing of up to 96 samples in a single flow cell using barcodes and still can re-use.
10. The sequencer system should generate standard data output formats: FAST5 and FASTQ which is compatible for all downstream analysis software.
11. Flexible run-time from 1-72 hour.
12. Conforms to the EMC and Electrical Safety directives as per the EC Declaration of Conformity.
13. GT\_GPU: Precision 5820 Tower XCTO/Intel Xeon Processor W-2265 (12C 3.5GHz 4.8GHz Turbo HT 19.25MB 165WDDR4-2933) /128GB 2x64GB DDR4 2933MHz RDIMM ECC Memory/ 16Gb Graphic card Nvidia RTX A4000, 16GB, 4DP /Mega RAID 9660-16-i Cnt Front Flex Bay RAID NVMe boot/Mega RAID 9460-16i 12Gb/s PCIe RAID controller (4GB cache) with 1-2 Front Flex Bay NVMe PCIe Drives/ 1xM.2 2TB PCIe NVMe Class 40 Solid State Drive/ 1x4TB M.2 NVMe Solid State Drive carrier label/ Dell Multimedia Wired Keyboard - KB216 Black - US International/Dell MS116 Wired Mouse Black/ 8x DVD+/-RW 9.5mm Optical Disk Drive/Ubuntu 20.04 on Precision/Dell 24 Monitor - P2422H/3Yr
14. The Software will be able to do NGS Data analysis without command line scripting for DNA and RNA data analysis. The software can be able to do, base calling, Variant Calling, gene prediction, exome analysis, local blast and many more tools.
15. Installation support, warranty, complete hands-on training & software license warranty for at least 1 year.
16. Vendor should have in-house genomics NGS lab with supportive publications on NGS platform.

**It may please be noted that proposed Equipment /Specification is Proprietary of M/s Oxford Nanopore Technologies, PIC, UK has the proprietary rights on manufacture of this equipment. However, if any manufacturer is engaged in business of manufacturing the same equipment/item and considers itself capable to supplying the same to the Institute as per desired technical specification, delivery terms etc. at competitive rates he may participated in this tender alongwith documentary proof as require in the bid.**