

Ref. No IISERBPr/S&P/GTE/2025-26/01

Date: 22th July 2025

Corrigendum

NIT no: IISERBPr/S&P/GTE/2025-26/01 Dt. June 26, 2025

1. This is to inform all concerned that based on the pre-bid meeting held on 3rd July, 2025 and as per the Institute requirement, the technical specification, technical compliance sheet have to be revised and re-uploaded in the www.gerpegov.com/IISERBP portal.
2. The below changes will be part of the tender documents.
3. This is for information of all concerned.

S. No.	Point No.	For	Read as
1	8	Automatic calibration and validation procedure for the system.	Automatic Calibration and validation/ verification procedure for the system.
2	10	Validation kit should be provided with system for IQ/OQ and monthly validation of Optics, Fluidics, Classifier and Reporter channel for ensuring the instrument is running as per specification.	Validation kit/ Verification kit should be provided with system for IQ/OQ and validation of Optics. Fluidics, Classifier and Reporter channel for ensuring the instrument is running as per specification.
3	11	MCV plate for hands free startup, shut down, maintenance procedures, validation and calibration of the instrument should be supplied along with the instrument.	MCV or AMP plate for hands-free startup, shutdown, maintenance procedures, validation, and calibration of the instrument should be supplied along with the instrument.
4	13	All other consumables for cytokines single or in multiplex, Phosphoprotein testing, and amine coupling with blank beads must be quoted in optional.	All other consumables for cytokines single or in multiplex, Phosphoprotein testing, and amine coupling with blank beads must be quoted in optional. (This is an optional item)
5	14	System should have two needle-height adjustment options to accommodate various plate types – Filter plates and PCR plates	System should have sample needle-height adjustment option to accommodate various plate types Filter plates and PCR plates.
6	17	Blank polystyrene and magnetic beads alongwith amine coupling kit must be available with the vendor and should be quoted in optional for developing in-house assays. Please attach complete price list in USD and Indian Rupees for these beads and coupling kits.	Blank polystyrene and magnetic beads along with amine coupling kit must be available with the vendor for developing in-house assays.
7	Sub Heading	Calibration and Validation kit (and not Verification kit)	Calibration and Validation kit / Verification kit


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8	19	Instrument must be supplied with a MCV plate for trouble free system start up, calibration & validation; also a Reservoir for automating the washing and shut down procedure before and after the experiment.	Instrument must be supplied with a MCV/ AMP plate for trouble free system start up, calibration & Validation/verification; also a Reservoir for automating the washing and shut down procedure before and after the experiment.
9	25	Performs automated instrument Calibration, Validation and maintenance.	Performs automated instrument Calibration, Validation/ Verification and maintenance.
10	33	Should have weighted five parameter 5PL logistic equation developed by Brendan Scientific, the leader for ELISA analysis.	Should have weighted five parameter 5PL logistic equation developed by Brendan Scientific or Equivalent).

The Last date of submission of bids may be extended upto July 30, 2025


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Chapter:IV

Schedule of Requirements and Compliance

Sl No.	Description	No. of Units
1	Supply, Installation, Testing and Commissioning of "Multiplex array system".	1

Annexure-I

Technical Specifications

96-Well Microplate Based Open System With Multiplexing Capabilities For Different Applications.

1. Instrument should support different protocol for Human, Mouse and Rat assays.
2. Instrument should be based on **xMAP technology** for quantifying upto 100 different analytes from a single well at a time.
3. System should support both magnetic and non-magnetic beads.
4. System should support most of the **Cytokine Assay** either one at a time or in multiplex for calculating variety of parameters in a single run and should also support different panels like autoimmune panel, Inflammation panel, Hematopoiesis panel etc.
5. System should also support **Phosphoprotein testing** one at a time or multiplex for different kinases used in signal transduction studies.
6. Immunoglobulin panels for IgG1, IgG2, IgG4 and all angiogenesis, acute phase and diabetic panel should be available.
7. **Blank magnetic beads** for developing custom assays in-house should be quoted and protocols for coupling proteins and nucleic acid should be available.
8. Automatic calibration and validation/**verification procedure** for the system.
9. Daily **Calibration kit** should be provided to check signal out put quality on a daily basis.
10. **Validation kit/Verification kit** should be provided with system for IQ/OQ and validation of Optics. Fluidics, Classifier and Reporter channel for ensuring the instrument is running as per specification.
11. **MCV or AMP** plate for hands-free startup, shutdown, maintenance procedures, validation, and calibration of the instrument should be supplied along with the instrument.
12. Should have options for **gene based applications** like – presence and absence analysis, pathogen detection, and genotyping.
13. All other consumables for cytokines single or in multiplex, Phosphoprotein testing, and amine coupling with blank beads must be quoted in optional (**This is an optional item**).
14. System should have sample needle-height adjustment option to accommodate various plate types Filter plates and PCR plates.
15. Should have optional **Automatic washer** for increased automation, higher throughput and better reproducibility for washing of all types of bead.
16. Should have **x-plex** platform for designing of pre-mixed custom panels.
17. Blank polystyrene and magnetic beads along with amine coupling kit must be available with the vendor **for developing in-house assays**.

Calibration and Validation kit /Verification kit

18. should be provided with the system for IQ/OQ and monthly validation of Optics, Fluidics, Classifier and Reporter channel for ensuring the instrument is running as per specification. Relevant technical notes/document must be attached stating the use and application of validation kit as mentioned above.
19. Instrument must be supplied with a MCV/AMP plate for trouble free system start up, calibration & Validation/verification; also a Reservoir for automating the washing and shut down procedure before and after the experiment.

Lasers

20. Reporter Laser 532 nm, >10mW Frequency doubled diode
21. Classification Laser 635 nm, 10mW Diode

Detector

22. Reporter channel detection-PMT with 14 bits resolution
23. Classification channel detection-Photodiodes with 12 bit resolution

Software

24. Single software platform for data acquisition, data analysis and maintenance of instrument.
25. Performs automated instrument Calibration, Validation/Verification and maintenance.
26. Should be capable of exporting data to text, XML, and Excel files in column or 96-well formats.
27. Should have an integrated Excel-based analysis application designed for genotype (including SNP) and Present vs. Absent analysis.
28. Should have **simplified input for values of standards** with automatic addition of new lots for reducing set-up time.
29. Should have **automated data processing** with automatic setting of appropriate dynamic range and identification of data points outside this range.
30. Should allow **change in DD gates** after the completion of run for accommodating kits manufactured by other vendors.
31. Should have option for 21 CFR part 11 compliance for security edition
32. Enables user to manipulate reader sensitivity – high PMT voltage for low concentration range using the most sophisticated curve fitting algorithms available
33. Should have weighted five parameter 5PL logistic equation developed by **Brendan Scientific or Equivalent**).
34. Should have total 6 options for curve fitting (linear and logistic)
35. Should include recovery analysis to report accuracy of curve fitting
36. Should display Unknowns, Controls and Upper and Lower Limits of Quantitation in the standard curve.
37. Should allow **running of more than one protocol** simultaneously, on one plate.
38. Should allow import of new panels from a CSV or text file.
39. Should have **data normalization** feature using multiple internal controls (housekeeping genes) for gene expression applications.
40. Assemble data from many instrument runs.



41. Label and compare biological replicates.
42. Perform simplified statistical tests for comparing biological replicates.
43. Create scatter plots, box and whisker plots, and bar graphs.
44. Review results in simple heat map.
45. Present customized results automatically in common formats.
46. Export results in publication quality formats.

Specifications for the handheld washer:

Handheld washer

47. capable of washing plates with magnetic (xMAG) assays for increased automation, higher throughput, and better reproducibility must be supplied with the system.
48. Magnetic field- $4,500 \pm 200$ gauss
49. Number of dispensing channels- 8
50. Residual volume magnetic wash- $<4 \mu\text{l}$
51. Dispensing accuracy- $\leq 2\%$
52. Dispensing uniformity -CV $\leq 4\%$ over the plate
53. Dimensions (W x D x H) -28 x 37 x 18 cm
54. Weight -6.6 kg

Delivery and installation

55. Item should be delivered within **45 Days** at **IISER Berhampur** (Permanent Campus). Installation should be done free of cost. The vendor should provide Any spare parts, consumables or accessories required for the installation of the instrument, free of cost.

FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS

Annexure-IA

Technical Compliance sheet	Compliance (Yes/No)
<u>96-Well Microplate Based Open System With Multiplexing Capabilities For Different Applications.</u> - Instrument should support different protocol for Human, Mouse and Rat assays. - Instrument should be based on xMAP technology for quantifying upto 100 different analytes from a single well at a time. - System should support both magnetic and non-magnetic beads. - System should support most of the Cytokine Assay either one at a time or in multiplex for calculating variety of parameters in a single run and should also support different panels like autoimmune panel, Inflammation panel, Hematopoiesis panel etc. - System should also support Phosphoprotein testing one at a time or multiplex for different kinases used in signal transduction studies. - Immunoglobulin panels for IgG1, IgG2, IgG4 and all angiogenesis, acute phase and diabetic panel should be available. Blank magnetic beads for developing custom assays in-house should be quoted and protocols for coupling proteins and nucleic acid should be available. - Automatic calibration and validation/verification procedure for the system. - Daily Calibration kit should be provided to check signal out put quality on a daily basis. Validation kit /Verification kit should be provided with system for IQ/OQ and validation of Optics, Fluidics, Classifier and Reporter channel for ensuring the instrument is running as per specification. MCV or AMP plate for hands-free startup, shutdown, maintenance procedures, validation, and calibration of the instrument should be supplied along with the instrument. - Should have options for gene based applications like – presence and absence analysis, pathogen detection, and genotyping. - All other consumables for cytokines single or in multiplex, Phosphoprotein testing, and amine coupling with blank beads (This is an optional item). - System should have sample needle-height adjustment option to accommodate various plate types Filter plates and PCR plates. - Should have optional Automatic washer for increased automation, higher throughput and better reproducibility for washing of all types of bead. - Should have x-plex platform for designing of pre-mixed custom panels. - Blank polystyrene and magnetic beads along with amine coupling kit must be available with the vendor for developing in-house assays.	

Calibration and Validation kit / Verification kit

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