

(राष्ट्रीय पशु जैव प्रोद्योगिकी संस्थान)

National Institute of Animal Biotechnology

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**Corrigendum -- Change of Date & Specifications**

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*Please refer NIAB Tender Details as follows.*

Tender ID : 2020\_DBTEC\_541304\_1

Tender Reference Number : NIAB/SP/2019-20/55

Tender Title : An Image Based High Content Screening (HCS) Platform Switches

The following changes may please be noted before submission of bids with respect to the tender details mentioned above.

In place of old dates mentioned in Tender , please consider following dates.

Document Download End Date :- in place of Existing old date --- Read As :- 19/03/2020

Bid Submission End date : in place of Existing old date --- Read As :- 19/03/2020

Bid Opening Date in place of Existing old date --- Read As :- 20/03/2020

**Revised /New changes in specifications**

**1. Specifikation** in place of Existing old specifications --- **Read As** : - Annexure -1 (as attached below) The specification mentioned below should be treated as revised specification and bid must be submitted accordingly.

**2. TECHNICAL BID COMPLIANCE FORM** in place of Existing old Compliance Form in Chapter No.: 6. ---- Revised Compliance form as attached below must be submitted along with bid.

Rest of the tender conditions remains same.

Point No.	<b>REVISED TECHNICAL SPECIFICATIONS</b>	<b>Annexure -1</b>
Application	An Image Based High Content Screening (HCS) Platform, having a fully automated system for high quality & high throughput applications. System should be, optimized for whole range of cell-based assays from standard fixed tissue/cell/spheroid imaging to multiparametric cell imaging. The system should be modular, configurable and field upgradable so that it can be customized to the end user's applications. The system should have following capabilities.	
Hardware-Detection/ Imaging:	<p>1) The system should be a fully automated High content imaging system capable of performing Brightfield, Widefield, Fluorescence, spinning Disc-Confocal and Phase Contrast (physical or digital) or other contrast enhancement based imaging modalities. The user should be able to easily switch between these detection modules as per the requirement. The system should be table top supporting image based fully automated high content analysis platform with no need for a dark room.</p> <p>2) The system should have an inbuilt spinning disc confocal with a single high-speed spinning disc with pinhole size between 40 µm to 70µm to allow confocal imaging of both thin and thick tissue samples.</p> <p>3) The excitation source should be high powered fast switching LEDs. A minimum of 4 LEDs or more. The system should have the flexibility to accommodate DAPI, GFP/FITC, CY3 and CY5.</p> <p>4) The system should have a sensitive large-format 16-bit sCMOS or CCD Camera with a resolution of 2000x2000 pixels or better. The pixel size should be minimum 4.5 µm or higher with 50-60% or better quantum efficacy.</p> <p>5) The system should have dedicated laser based auto-focus and image based autofocus.</p> <p>6) The system should have air lenses of 10x, 20x, &amp; 40x. The suggested objectives should be capable in all three modes imaging i.e. fluorescence (widefield / confocal), Bright field and phase contrast or other contrast enhancement methods. Any additional features that improves the contrast is preferred.</p> <p>7) Also quote for 2X and 4x/5X air objectives.</p> <p>8) Objective turret must accommodate a minimum of 3 or more objectives lenses at a time.</p> <p>9) The system should be compatible with variable plate formats following SBS standard (6, 24, 48, 96, 384, 1536-well), user-defined formats and slides (in slide holder). All applications of Widefield, spinning disc Confocal should be possible in microscopic slides and 6, 12, 24, 48, 96 &amp; 384 well formats across all objectives.</p> <p>10) The system should have a high speed, high resolution linear drive scanning stage, 50nm resolution, 1µm repeatability, z-stage resolution 100nm or better.</p> <p>11) The system should offer 4 or more position emission filters, covering DAPI, GFP/FITC, CY3 and CY5, which can be user changeable.</p> <p>12) The filter sets should be compatible for single or multi colored fluorescence imaging.</p> <p>13) The equipment should be provided with factory recommended Work station (with high resolution wide screen monitor - minimum 30 inch, Intel Xenon Processor, 64-Bit PC, Windows 10, 32GB RAM, 16TB storage space with possibility for expansion), keyboard and mouse. One additional system with same configuration should be supplied.</p>	

Software-Image Acquisition & Analysis:	<p>14) The workstation should include control software to control equipment and analysis software to analyze the images on the same computer without the need for external servers.</p> <p>15) The system should be supplied with appropriate data management software to manage the data and image output of the instrument. Should have imaging and analysis simultaneously (on the fly analysis). The system software should be able to perform- imaging &amp; analysis of fixed cell fluorescence imaging, 3D spheroids, cell growth, cell death, cell differentiation, migration, viral or bacterial invasion, cancer metastasis, chemotaxis, drug toxicity, protein – protein interaction-based assays, FRET based applications, Stem cell studies &amp; Homogeneous Binding Assays.</p> <p>16) The user should be able to co-register images from Bright field, and Phase contrast, Fluorescence and Confocal modes.</p> <p>17) The system software should have ready-to-go protocols / templates available such as proliferation, autophagy, migration etc.</p> <p>18) The system should be able to export plate data automatically for image storage and analysis.</p> <p>19) Software should have network compatibility and transfer of image files and experiment data files between an office workstation and the imaging instrument, further enabling user access within a multi-user environment.</p> <p>20) Software should have the feature like real-time image analysis for every application, enabling useful on-line quality control within screening programs.</p> <p>21) Software should export results automatically or in batches into Image Data Storage and Analysis system to access, re-analyze, store, and share the image data.</p> <p>22) The system should be supplied with 2 additional licenses for analysis software and the corresponding data management software to manage the data and image input of the instrument.</p>
Any Other required items like UPS, Stabiliser, fixed warranty for any item etc. (if any):	<p>23) The principle manufacturer/company should participate in the bid directly or via authorized distributors. The bidder should specify the after sales service and application support capabilities.</p> <p>24) Installation should be done by trained factory (manufacturer's) engineers.</p> <p>25) Suitable UPS to be provided.</p> <p>26) The vendor should provide complete demonstration &amp; training of the HCS system to the institute faculty &amp; students post installation. Further, whenever needed by the institute, technical support should be provided by a dedicated HCS application specialist.</p> <p>27) Bidder should have at least 5 installations of their HCS instruments of any model in the country.</p> <p>28) Bidder should also provide a detailed list of users of the quoted system with contact details.</p> <p>29) Onsite 5-year comprehensive warranty including LED Sources.</p>
Other important requirement	30) Quote optionally for a) Robotic interface b) liquid handling system and c) environmental control modules for live cell imaging applications. Temperature control: 37°C to 42°C (± 1°C) & CO2 control: 1-10 % +/- 0.5%, Humidity control & gas inlet with maintenance options.

**TECHNICAL BID COMPLIANCE FORM**  
**SPECIFICATION, OTHER REQUIREMENTS OF THIS NIT**

**TECHNICAL BID COMPLIANCE FORM**

**(MANDATORY TO SUBMIT)**

**TO BE UPLOADED ON CPPP COVER -1 PART -1 AS PER NIT**

The Director,  
National Institute of Animal Biotechnology (NIAB),  
Opp. Journalist Colony, Near Gowlidoddy,  
Extended Q City Road, Gachibowli, Hyderabad, Telangana, India -32

Sir,

Please find attached technical compliance statement as required vide this Tender No \_\_\_\_\_ dt \_\_\_\_\_  
For the item \_\_\_\_\_

	Tender Specifications	Bidders specification/ Quality make / Remark	Compliance (Yes/No)  Bidder deviation ( If any)	Catalogue / BID Page No on which compliance information is given / details of Supporting technical documents / brochure
	Application			
	An Image Based High Content Screening (HCS) Platform, having a fully automated system for high quality & high throughput applications. System should be, optimized for whole range of cell-based assays from standard fixed tissue/cell/spheroid imaging to multiparametric cell imaging. The system should be modular, configurable and field upgradable so that it can be customized to the end user's applications. The system should have following capabilities.			
	<i>Hardware-</i> Detection/ Imaging:			
1.	1) The system should be a fully automated High content imaging system capable of performing Brightfield, Widefield, Fluorescence, spinning Disc-Confocal and Phase Contrast (physical or digital) or other contrast enhancement based imaging modalities. The user should be able to easily switch between these detection modules as per the requirement. The system should be table top supporting image based fully			

	automated high content analysis platform with no need for a dark room.			
2.	2) The system should have an inbuilt spinning disc confocal with a single high-speed spinning disc with pinhole size between 40 µm to 70µm to allow confocal imaging of both thin and thick tissue samples.			
3.	3) The excitation source should be high powered fast switching LEDs. A minimum of 4 LEDs or more. The system should have the flexibility to accommodate DAPI, GFP/FITC, CY3 and CY5.			
4.	4) The system should have a sensitive large-format 16-bit sCMOS or CCD Camera with a resolution of 2000x2000 pixels or better. The pixel size should be minimum 4.5 µm or higher with 50-60% or better quantum efficacy.			
5.	5) The system should have dedicated laser based auto-focus and image based autofocus.			
6.	6) The system should have air lenses of 10x, 20x, & 40x. The suggested objectives should be capable in all three modes imaging i.e. fluorescence (widefield / confocal), Bright field and phase contrast or other contrast enhancement methods. Any additional features that improves the contrast is preferred.			
7.	7) Also quote for 2X and 4x/5X air objectives.			
8.	8) Objective turret must accommodate a minimum of 3 or more objectives lenses at a time.			
9.	9) The system should be compatible with variable plate formats following SBS standard (6, 24, 48, 96, 384, 1536-well), user-defined formats and slides (in slide holder). All applications of Widefield, spinning disc Confocal should be possible in microscopic slides and 6, 12, 24, 48, 96 & 384 well formats across all objectives.			
10.	10) The system should have a high speed, high resolution linear drive scanning stage, 50nm resolution, 1µm repeatability, z-stage resolution 100nm or better.			
11.	11) The system should offer 4 or more position emission filters, covering DAPI, GFP/FITC, CY3 and CY5, which can be user changeable.			
12.	12) The filter sets should be compatible for single or multi colored fluorescence imaging.			
13.	13) The equipment should be provided with factory recommended Work station (with high resolution wide screen monitor - minimum 30 inch, Intel Xenon Processor, 64-Bit PC, Windows 10, 32GB RAM, 16TB storage space with possibility for expansion), keyboard and			

	mouse. One additional system with same configuration should be supplied.			
	<i>Software-</i> Image Acquisition & Analysis:			
14.	14) The workstation should include control software to control equipment and analysis software to analyze the images on the same computer without the need for external servers.			
15.	15) The system should be supplied with appropriate data management software to manage the data and image output of the instrument. Should have imaging and analysis simultaneously (on the fly analysis). The system software should be able to perform- imaging & analysis of fixed cell fluorescence imaging, 3D spheroids, cell growth, cell death, cell differentiation, migration, viral or bacterial invasion, cancer metastasis, chemotaxis, drug toxicity, protein – protein interaction-based assays, FRET based applications, Stem cell studies & Homogeneous Binding Assays.			
16.	16) The user should be able to co-register images from Bright field, and Phase contrast, Fluorescence and Confocal modes.			
17.	17) The system software should have ready-to-go protocols / templates available such as proliferation, autophagy, migration etc.			
18.	18) The system should be able to export plate data automatically for image storage and analysis.			
19.	19) Software should have network compatibility and transfer of image files and experiment data files between an office workstation and the imaging instrument, further enabling user access within a multi-user environment.			
20.	20) Software should have the feature like real-time image analysis for every application, enabling useful on-line quality control within screening programs.			
21.	21) Software should export results automatically or in batches into Image Data Storage and Analysis system to access, re-analyze, store, and share the image data.			
22.	22) The system should be supplied with 2 additional licenses for analysis software and the corresponding data management software to manage the data and image input of the instrument.			
	Any Other required items like UPS, Stabiliser, fixed warranty for any item etc. (if any):			
23.	23) The principle manufacturer/company should participate in the bid directly or via authorized distributors. The bidder should specify the after			

	sales service and application support capabilities.			
24.	24) Installation should be done by trained factory (manufacturer's) engineers.			
25.	25) Suitable UPS to be provided.			
26.	26) The vendor should provide complete demonstration & training of the HCS system to the institute faculty & students post installation. Further, whenever needed by the institute, technical support should be provided by a dedicated HCS application specialist.			
27.	27) Bidder should have at least 5 installations of their HCS instruments of any model in the country.			
28.	28) Bidder should also provide a detailed list of users of the quoted system with contact details.			
29.	29) Onsite 5-year comprehensive warranty including LED Sources.			
	Other important requirement			
30.	30) Quote optionally for a) Robotic interface b) liquid handling system and c) environmental control modules for live cell imaging applications. Temperature control: 37°C to 42°C ( $\pm 1^\circ\text{C}$ ) & CO2 control: 1-10 % +/- 0.5%, Humidity control & gas inlet with maintenance options.			

COMPETENT AUTHORITY NAME , SIGN & DATE  
WITH STAMP & SEAL OF ORGANIZATION

**\*\*\*\*\* Please note following very important points \*\*\*\*\***

An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications must be provided. If any deviation is proposed by the Bidder, the same must be clearly indicated and enclosed as deviation as per given format. Compliance/Deviation statement comparing the specifications of the quoted model to the required specifications should also give the page number(s) of the technical literature where the relevant specification is mentioned. Bids must have supporting documents (technical literature or copies of relevant pages from the service manual or factory test data) for all the points of specification, failing this will result in rejection of bid. The technical committee can ask for demo in NIAB (if required at the time of technical evaluation). If bid participating firm fails to arrange for demo, it will result in rejection of the bid. In case of demo is to be arranged at different place other than NIAB, all the incidental expenses of this arrangement has to borne by the bid participating firm. No Queries will be entertained for waive off for demo as it is in utmost interest of the organisation to make correct procurement as per end user requirement and use public fund in correct manner with avoid of risk of purchase of substandard material. As specification is essence of this purchase no comprise will be made in ascertaining the right quality of product as per requirement for NIAB. Your Bid will be summarily rejected if this TECHNICAL BID COMPLIANCE FORM along with supporting technical documents are not submitted.

Manager (S&P)  
NIAB-Hyderabad  
Date:- 06/03/2020