



अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स) कल्याणी
All India Institute of Medical Sciences (AIIMS) Kalyani
(स्वास्थ्य एवं परिवार कल्याण मंत्रालय, भारत सरकार के तत्वावधान में एक सांविधिकनिकाय)
(A Statutory Body under the Aegis of Ministry of Health and Family Welfare, GOI)
राष्ट्रीय राजमार्ग – 34, बसन्तपुर, सागूना, कल्याणी, ज़िला – नदिया, पश्चिम बंगाल - 741245
NH-34 Connector, Basantapur, Saguna, Kalyani, District Nadia, West Bengal 741245

WEB CHALLENGE NOTICE

Reference No: 3906 /P-17011/1/22-23 (Single source)

Date: 20.02.2024

The notice is being uploaded on the web site www.aiimskalyani.edu.in and CPPP.

Sub: Verification and Justification of proprietary nature of the items through 21 days WEB Challenge on the official website of AIIMS, Kalyani and CPPP before Procurement of "Software for Metaphase finder system with fluorescence" for the dept. of Anatomy, AIIMS, Kalyani against proprietary article certificate of the Original Equipment Manufacturer (O.E.M.) Inviting Comments thereon.

Department of Anatomy, AIIMS, Kalyani is intends to buy an equipment namely **Software for Metaphase finder system with fluorescence**, make by M/s. Applied Spectral Imaging, Yokneam High – Tech park, Alon Building, B, 2 HA Carmel street, Yokneam 2069204, Israel.

The equipment may be purchased from M/s. DSS Imagetech Pvt. Ltd., A-5 Mohan Cooperative Industrial Estate, Mathura Road, New Delhi – 110044.

M/s. DSS Imagetech Pvt. Ltd., A-5 Mohan Cooperative Industrial Estate, Mathura Road, New Delhi – 110044, India is the subsidiary and the Indian channel partner of the above said Original Equipment Manufacturer (O.E.M.) of **Software for Metaphase finder system with fluorescence** (Namely M/s. Applied Spectral Imaging, Yokneam High – Tech park, Alon Building, B, 2 HA Carmel street, Yokneam 2069204, Israel.)

The Original Equipment Manufacturer (OEM) (Namely M/s. Applied Spectral Imaging, Yokneam High – Tech park, Alon Building, B, 2 HA Carmel street, Yokneam 2069204, Israel.) , has been declared in the Proprietary Certificate provided in their company's letter head that the sole manufacturer of the equipment namely **Software for Metaphase finder system with fluorescence**.

The notice is being uploaded for general information of prospective Manufacturer/ Authorized Distributor/Dealer to submit their objection/ comments, if any, on proprietorship of the **Software for Metaphase finder system with fluorescence**, Make: M/s. Applied Spectral Imaging, Yokneam High – Tech park, Alon Building, B, 2 HA Carmel street, Yokneam 2069204, Israel., they may submit their proposal along with specifications, supported by all documentary evidence and a price quotation for the above said items.



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The objection/proposal/comments, if any should be sent in sealed cover to the Office of the Chairperson, Procurement Cell, AIIMS, Kalyani, P.O.- Ghoragacha, NH-34 Connector, Basantapur, Saguna, Kalyani, District-Nadia, West Bengal- 741245. Or through email to web_challenge@aiimskalyani.edu.in, so as to reach on or before 21 days from the web published date (before 5:00 pm) failing which it will be presumed that no other firm is interested to offer comments/protest/object and case will be decided on its merits.

The "Ref No. 3906/P-17011/1/22-23 (Single source) on or before 21 days from the web published date (before 5:00 p.m.) should be superscripted on sealed envelope.

Enclosures:

- 1) Proprietary Certificate of Manufacturer **M/s. Applied Spectral Imaging , Yokneam High – Tech park , Alon Building, B, 2 HA Carmel street, Yokneam 2069204, Israel.**
- 2) Authorization Certificate provided by the OEM to **M/s. DSS Imagetech Pvt. Ltd., A-5 Mohan Cooperative Industrial Estate , Mathura Road , New Delhi – 110044**
- 3) Specification Copy


Dr. Mugunthan M
Co-Chairperson of Procurement Cell
AIIMS, Kalyani

Copy to:

- 1) Web site , FIC 2) Indenting Department , 3) PS to DDA , 4) Office copy

Specification of Software for Metaphase finder system with fluorescence

1. Fully automated, walk-away operation for 9 or more slides and high efficiency. The system must operate unattended through the entire process for both low and high magnification scanning and capture.
2. Rapid automated scan for the detection of cover-slip and identification of amniotic fluid colonies. (prenatal samples). Scanning and metaphase detection of the following staining types: G-band, Q-band, R-band and DAPI stained metaphases.
3. Full slide coverage, scanning of slide edge to edge. Artificial Intelligence based algorithms for optimal metaphase detection.
4. Automated metaphase grading during scan. Highly graded metaphases to be selected automatically for automated high magnification image acquisition. During slide scanning, allow user to interactively select desired metaphases for high magnification image acquisition.
5. Automated relocation to selected metaphases, using x100 oil immersion objective, following detection using x10 magnification with no user intervention. Automated metaphase centering algorithm of high magnification capture.
6. Karyotyping can be performed on cells of a slide while same slide is being scanned.
7. Ability to perform chromosome segmentation operations within a single tool without additional key board strokes or mouse clicks to switch to a different tool function, with more than 10 different operations.
8. Automatic counting of chromosomes with minimal adjustment to complete full chromosome count
9. Mark and count the overlapped chromosomes automatically
10. Ability to localise Marker Chromosomes in Karyotype view. System can automatically present a single karyotype of multiple patients (like family members) with all chromosomes included side by side for each class
11. Ability to perform a Multi-Case Chromosome Compare by allowing user to simultaneous review (side by side) chromosomes from multiple related cases within a single view
12. Ability to define a karyotype with all chromosomes of multiple family members. Ability to prepare the customised ideograms. Support ISCN formats for 300, 400, 550, 700 and 850 - band levels of resolution; Automatic ISCN - embedded abnormality text. Automatic measurement of band resolution.
13. Full Karyotyping capabilities for karyotyping of FISH probes should be present within the basic FISH module.
14. Observed signals.
15. SYSTEM should be FDA approved for all the probes.
16. System should be upgradable to IHC in future.
17. System should be upgradable to Spectral Karyotyping (for future plans), with interferometer-based technology.
18. Simultaneous scan of metaphase and interphase FISH in the same scan, with ability to classify metaphases and interphases in separate cell galleries.
19. Quality results leveraging double blind multiple technologists scoring. Multiple users can review the cells of the same slide separately without revealing the analysis results of each user.

January 18, 2024

PROPRIETARY ARTICLE CERTIFICATE

To whom it may concern

Dear Sir,

This is to certify that FULLY AUTOMATED KARYOTYPING AND FISH SOFTWARE PLATFORM (part of the metaphase slide scanner with fluorescence) from ASI, quoted by our distributor M/S DSS Imagetech Pvt Ltd P.I No. AIIMS kalyani -23-0719/KOL Dated 15/02/2023 is an article of Proprietary nature.

No other company is manufacturing & supplying the same Proprietary Products with Identical Specifications. M/S DSS Imagetech Pvt Ltd. is our Sole Exclusive Distributor for Kolkata India & is authorized to offer, sell & Service the Products in the Territory.

Please find below Applied Spectral Imaging's (ASI) proprietary features in respect to the Karyotyping (HiBand) and FISH (HiFISH) Software.

Automated Scanning and Metaphase Detection		
Category	Technical/Description	Remarks
Interactive Metaphases selection for high magnification scanning	During slide scanning, allow user to interactively select desired metaphases for high magnification image acquisition	Unique Feature
Trays reloading	Continuous slide trays reloading during scanning	Unique Feature
Scan status monitoring	Real time scan status monitoring, including slide search by case or slide details or by scan status. Optional filtering by lab and scanner. Ability to export scan history	Unique Feature

Automated Relocation to Cells and Image Acquisition		
Category	Technical/Description	Remarks
Merge floating chromosomes	Ability to merge floating chromosomes to the metaphase within the scanning application	Unique Feature
Metaphase images display	Side by side display of low and high magnification metaphase images to ensure all chromosomes are included within the high magnification image	Unique Feature
Cells availability for review and analyze	Ability to start cells review and karyotyping while a slide is undergoing scanning.	Unique Feature

Manual Metaphase Image Acquisition		
Category	Technical/Description	Remarks
Acquired metaphases gallery	Gallery of recently acquired metaphases available within the capture/ application window	Unique Feature

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Yokneam High-Tech Park, Alon Building, B, 2 HaCarmel St., Yokneam 2069204, Israel

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Spectral karyotyping	Optional image capture of 24-color-stained metaphases	Unique Feature
Chromosome Analysis and Karyotyping		
Category	Technical/Description	Remarks
Case review by multiple users	Option for simultaneous reviewing of case by multiple users	Unique Feature
Chromosome classification and arrangement into karyogram	Machine learning algorithm for chromosome classification and arrangement into karyogram per laboratory samples	Unique Feature
Band resolution	Automatic measurement of band resolution	Unique Feature
Automatic chromosome segmentation	Automatic removal of non-chromosomal objects. Automatic metaphase separation, including overlapping, touching and clustered chromosomes with option for manual adjustment	Unique Feature
Interactive chromosome segmentation tool	Ability to perform chromosome segmentation operations within a single tool	Unique Feature
Complex chromosome clusters separation	Separation of complex chromosome clusters using brush tool	Unique Feature
Editing within karyotype window	Ability to perform all contour editing and segmentation operations, including addition of missing telomere regions, in karyotype window	Unique Feature
Overlapped chromosomes marking	Automatic marking and counting overlapped chromosomes	Unique Feature
Overlapped chromosomes tracking	Chromosome clearance tool for tracking of non-overlapped chromosome segments	Unique Feature
Multiple patients chromosomes display	Side by side visualization of multiple patients' chromosomes	Unique Feature

Case Review and Reporting		
Category	Technical/Description	Remarks
Case summary	Access to complete case summary from the database	Unique Feature
Chromosome overlap report	Digital Chromosome overlap report	Unique Feature
karyotype summary report	Case Report summarizing karyotype of all cell aberrations for immediate view of clones and common aberration	Unique Feature
Reports combining information from multiple cases	Ability to generate reports including chromosomes from multiple cases, normal and aberrant ideograms, and annotations	Unique Feature
Hide the sex chromosomes	Ability to hide sex chromosomes in cell reports	Unique Feature
Automated FISH Scanning & Image Acquisition		
Category	Technical/Description	Remarks

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Scanning protocols and stop criteria	Versatile scanning protocols with configurable stop criteria	Unique Feature
Metaphase & Interphase detection	Simultaneous Metaphase & Interphase detection in a single scan, with ability to classify metaphases and interphases in separate cell galleries	Unique Feature
Tissue FISH samples scanning	Fully automated scanning protocol for tissue samples including 1. 4x scan of entire slide in DAPI with background uniformity correction, 2. Tissue detection 3. High magnification tissue scans with all colors and multiple focal planes	Unique Feature
Pathologist defined regions scan	Automatic scanning based on pathologist-defined regions transferred from reference brightfield slides	Unique Feature
Scan status monitoring	Real time scan status monitoring, including slide search by case or slide details or by scan status. Optional filtering by lab and scanner. Ability to export scan history	Unique Feature
Add tumor regions	Ability to scan newly added tumor regions without the need to rescan the original tumor regions	Unique Feature

Automated FISH Review & Analysis		
Category	Technical/Description	Remarks
Cell reclassification	Ability to reclassify any cell to one of 15 cell-classes in a single key press	Unique Feature
Review modes	Versatile review modes, from automatic cell & signal detection and classification, through scanning without analysis, to scanning without classification	Unique Feature
Blinded review	Multiple users can review the cells of the same slide separately without revealing the analysis results of each user. Statistics are gathered digitally but cannot be seen by the next reviewer, for true double blinded process	Unique Feature
Supervisor mode	Supervisor review mode in case of results discordance between different users review and classification	Unique Feature
Remove readers	Ability to remove readers from overall statistics	Unique Feature
Additional review indication per region	Ability to add region indication for additional review	Unique Feature

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Analysis approval notifications	Automatic notification in case application is closed without analysis approval	Unique Feature
Cells export to database	Ability to batch export cells from scanning application to database according to cell status	Unique Feature
FISH probes setup	Ability to define new FISH probes/kits without the need for vendor support	Unique Feature
Abnormal signal patterns detection	Automatic detection of abnormal signal patterns	Unique Feature
Multi-fusion probes detection	Algorithm for the detection and classification of multi-fusion FISH probes, including triple and quad-color fusions	Unique Feature
Automatic image enhancement	Intelligent image enhancement algorithms for consistent signals appearance across sample	Unique Feature
Interactive image enhancement	Ability to change Image Enhancement settings of one image and if required apply to all cells/frames in the gallery	Unique Feature
Cell and signal detection parameters adjustments	Ability to adjust cell and signal detection parameters for reanalysis of cells from all originally analyzed frames	Unique Feature
Quantitative graphical data	Ability to provide quantitative graphical data from FISH scanning, including cell area, signals intensity and SNR. Useful in evaluating probes and wet lab quality control	Unique Feature
Workspace	Multiple view modules within the software GUI: large FOV image, multi-color panel, zoom view	Unique Feature

FISH Imaging & Analysis		
Category	Technical/Description	Remarks
Z stack	Ability to Z-Stack on manual microscopes	Unique Feature
Karyotyping capabilities	Full Karyotyping capabilities within the basic FISH module	Unique Feature
Chromosome segmentation	Ability to perform chromosome segmentation operations within a single tool without additional key board strokes to switch to a different tool function (more than 10 different operations)	Unique Feature

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Signals intensity	Ability to view absolute value of signals intensity	Unique Feature
Digital Manual Counting Utility	Digital FISH cell counter with real time result statistics	Unique Feature
Manual scoring change indication	Ability to instantly review all cells that had a manual scoring change	Unique Feature
Database & Case Management		
Category	Technical/Description	Remarks
Database display	Instant view of case, slide and cells information and status	Unique Feature
Gallery view	Combined gallery views of all image types apture for a case, for side-by-side viewing	Unique Feature
Cell Status Management	Ability to pre-mark cells for actions like Co nt, Analyze and Karyotype, as well as the ability to view status of individual cells upon action completion	Unique Feature

Reporting		
Category	Technical/Description	Remarks
Case summary reports	Ability to create, view and save customizable summary reports for case statistics per sample type, period of interest and more	Unique Feature
Staff productivity reports	Ability to create, view and save customizable staffproductivity reports per sample type, period of interest and more	Unique Feature
Turnaround time reports	Ability to create, view and save customizable turnaround time reports per sample type, period of interest and more	Unique Feature
Slides statistics reports	Ability to create, view and save customizable slides statistics reports	Unique Feature

Quality Standards	
CE Marked	Included
FDA - State 510K	Included
• Karyotyping	Included
• FISH	Included
• Her2neu FISH	Included
• ALK FISH	Included
• UroVysion FISH	Included
• CEP XY FISH	Included

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Your Sincerely,

Lisa Moas 
Senior Manager, Channel Distribution ROW

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Manufacturers Authorization Form

Date: 15.02.2023

Quote Number: AIIMS kalyani -23-0719/KOL. DATE : 15.02.2023

To

The Executive Director

All India Institute of Medical Science

NH-34, Connector, Kalyani, West Bengal-741245

Dear Sir,

We, Applied Spectral Imaging Ltd., having factories at Yokneam High-Tech Park, Alon Building, Entrance B, 2 Ha Carmel St., Yokneam 2069204, Israel, do hereby authorize DSS Imagetech Pvt. Ltd., (The "Distributor") having offices at A-5, Mohan Cooperative Industrial Estate, Mathura Road, New Delhi-110044 to submit a bid the purpose of which is to provide the following equipment "Upright microscope equipped with cytogenetics study along with fluorescence imaging", and to subsequently negotiate and sign the contract.

We, via our Distributor also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorized agent including availability of spare parts & consumables for the period of 5 years for supplied equipment to AIIMS in Kalyani, West Bengal, India.

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Chief Executive Officer

Applied Spectral Imaging Ltd.

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