



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
TIRUPATI

CLARIFICATION ON TENDER NUMBER - IISERT-PUR-0028-16

ITEM DESCRIPTION- PROCUREMENT OF SPECTRAL CONFOCAL LASER SCANNING MICROSCOPE

Refer our Press Tender Notice No.IISERT/S&P/01/16 dated 25.5.2016 for procurement of Spectral Confocal Laser Scanning Microscope. Tender Reference Number - IISERT-PUR-0028-16.

Pre-Bid meeting was held on June 02nd, 2016 at 14.30 and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website www.iiserpune.ac.in will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair

13.6.2016

Sd/-
Assistant Registrar (S&P)



ANNEXURE -II

IISER TIRUPATI

PRE-BID CONFERENCE FOR PROCUREMENT OF SPECTRAL CONFOCAL LASER SCANNING MICROSCOPE

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-0028-16

DATE : 13.06.16

S.No	Query/Clarification Sought	Clarification / Amendment
1.	I. Fully Motorized & computer controlled Inverted Fluorescence Research Microscope: 2. Motorized Z-focus drive with minimum step resolution of 25 nm and better resolution with piezo stage Query: Please clarify if we have to quote Piezo Stage?.	Clarification and Amendment: Please include a Piezo/Galvo stage for faster imaging through the Z axis
2.	10. Automated Laser or LED based dedicated focus drift control device to maintain the focus for long-term time lapse imaging experiments. Query: We request you to rephrase it as “Automated Laser / LED based (790nm or better) dedicated focus drift control device to maintain the focus for long-term time lapse imaging experiments”.	Clarification and Amendment: Please change to “Automated Laser/LED based (700nm or higher wavelength) dedicated focus drift control device to maintain focus for long-term time lapse imaging experiments”.
3.	II. Spectral Confocal Laser Scan head with built-in/separate detectors: 9. The laser scanner should have dual scan capability of real ROI with fast scan for bleaching/photoactivation & normal scan for Imaging, to conduct experiments like FRAP, FLIP, photo activation, photoconversion and photo-bleaching. Query: We request you to generalize the term Real ROI which is specific to particular brand.	Clarification: The laser scanner should have dual scan capability of real ROI or equivalent with fast scan for bleaching/photoactivation & normal scan for Imaging, to conduct experiments like FRAP, FLIP, photoactivation, photoconversion and photo-bleaching.

4.	<p>VI. Optional Accessories: 1. A high resolution cooled monochrome CCD Digital camera with 1.4 million pixel chip resolution and 12 megapixel digital resolution, controlled by the same confocal software for high resolution fluorescence imaging. Pixel size: 6.45 μM. Query: We request you to add CMOS with CCD. Beginning of the line says High resolution camera, but 1.4 million pixel cannot be the high resolution. We can provide cooled monochrome camera with 16 million pixel real resolution, not digital. It can be rephrased as "A high resolution cooled monochrome CCD / CMOS Digital camera with</p>	<p>Clarification: A cooled monochrome CCD/CMOS Digital camera with 1.4 million pixel chip resolution/12 megapixel digital resolution or better, controlled by the same confocal software for high resolution fluorescence imaging. Pixel size: 6.45 μM.</p>
5.	<p>4. Structured illumination based accessories for increased confocal resolution should be added as a software or a hardware based solution. Query: Please specify the resolution required in X, Y, and Z for Structured illumination based accessories.</p>	<p>Clarification: Structural illumination based accessories for increased confocal resolution should be added to the software or a hardware based solution should be provided. The resolution should improve from the usual confocal resolution in the X,Y and Z axis. The increase in resolution should be provided in the technical specifications.</p>
6.	<p>I. Fully Motorized & computer controlled Inverted Fluorescence Research Microscope: 1) Point No. 2. Motorized Z-focus drive with minimum step resolution of 25 nm and better resolution with piezo/Galvo Stage.</p>	<p>Clarification and Amendment: A Piezo/Galvo stage should be added for faster imaging through the Z axis</p>
7.	<p>2) Point number 10 :- We would request you to specify the wavelength range(Typical range are above 700nm laser or LED which is not harmful for the live sample).</p>	<p>Clarification and Amendment: Please change to "Automated Laser/LED based (700nm or higher wavelength) dedicated focus drift control device to maintain focus for long-term time lapse imaging experiments".</p>
8.	<p>3) Point number 11: Imported (Newport/Kinetic /Thorlab) Active anti vibration table for better quality.</p>	<p>Clarification and Amendment: System should contain an active anti-vibration table of good quality from the following companies: Newport or Kinetic or Thorlab.</p>
9.	<p>II. Spectral Confocal Laser Scan head with built-in/separate detectors: 4) Point number 10 :-We would request you to mention the scan resolution at least 4k x 4k. When we go for low magnification objective with high NA ,then 2K X2K is not going to be enough resolution.</p>	<p>Clarification and Amendment: The Scan resolution should be at least 4K X 4K</p>

10.	5) Point number 14:-At least 2 high sensitive detectors (GaASP / HyD). Will these detectors be in addition of above three detectors? Kindly clarify.	Clarification and Amendment: 2 high sensitivity detectors and 2 regular PMT detectors should be included.
11.	6) Warranty	Clarification and Amendment: A complete warranty for 3 years after installation. Lasers should be included in the 3 year warranty. The price of the AMC after 3 years should be fixed in the commercial bid document.
12.	<p>Section II. Spectral Confocal Laser Scan head with built-in/separate detectors: <u>Point 2:</u> The scan head should be capable of simultaneous detection and separation of at least 3 fluorophores and sequential detection of at least 4 fluorophores.</p> <p>We suggest the following change to make the specification better and which all the microscopy supplier can provide: The scan head should be capable of simultaneous detection and separation of at least 4 fluorophores and sequential detection of at least 16 fluorophores.</p>	Clarification and Amendment: The scan head should be capable of simultaneous detection and separation of at least 4 fluorophores and sequential detection of 4 or more fluorophores.
13.	<p><u>Point 14:</u> At least two high sensitivity detector (for example: GaAsP/Hybrid/etc.) We suggest the high sensitive detectors also to be spectral type.</p>	Clarification and Amendment: 2 high sensitivity detectors and 2 regular PMT detectors should be included.
14.	<p>Section III. Laser Module: <u>Tender Spec:</u> Preference would be given to solid state lasers due to its long life and maintenance free operation. <u>Our Request:</u> All lasers should be solid state lasers due to its long life and maintenance free operation. All the microscopy companies can provide the same.</p>	Clarification and Amendment: Solid state lasers should be quoted for as many laser lines as a possible. The power for the lasers should be mentioned.
15.	<p><u>2. 458 and 514 nm for CFP and YFP fluorophores</u> Olympus system comes with high power long lasting 445 nm solid state diode laser. So we request to amend the point as 445/458 and 514 nm for CFP and YFP fluorophores</p>	Clarification and Amendment: The following laser lines are requested: 405nm, 445/458 for CFP imaging, 488nm, 514nm, 561nm, 633nm

16.	<p>3. <u>555/559/561 nm for TRITC, Rhodamine, Texas Red, Cy3, PE, PI fluorophores</u> We suggest 561 nm for TRITC, Rhodamine, Texas Red, Cy3, PE, PI fluorophores, since all the microscopy supplier can provide the same. In addition, 552/555 nm lasers are of very low output power and lower lifetime, whereas 561 nm has been widely accepted and used now a days along with GFP since it provides better GFP detection bandwidth. Some companies want to quote 552nm gas / 555nm diode laser to reduce the cost despite having 561 nm line.</p>	<p>Clarification and Amendment: 561nm should be quoted as a preferred laser line for TRITC, Rhodamine, RFP, etc fluorophores.</p>
17.	<p>4. <u>635/639 nm for Alexa 633, DRAQ 5, Cy5 fluorophores</u> Olympus system comes with high power long lasting 640 nm solid state diode laser. So we request to include that line as well. Additionally, we suggest you to include another laser 594 nm in the main specification to efficiently excite fluorophores like mCherry, DS-Red, Alexa Fluor 594 etc. and again which all the microscopy supplier can provide.</p>	<p>Clarification and Amendment: Any one 633/640 nm laser line with higher laser power should be quoted.</p>
18.	<p>II. Spectral Confocal Laser Scan head with built-in/separate detectors: Point number 11. Scan Zoom range 1.0x to 40x or more and should be adjustable in small steps. We would request you to kindly amend this point as "Scan Zoom range 1.0x to 30x or more and should be adjustable in small steps"</p>	<p>Clarification and Amendment: Scan Zoom range 1.0X to 30X or more and should be adjustable in small steps.</p>
19.	<p>2. <u>458 and 514 nm for CFP and YFP fluorophores</u> We would request you to kindly consider to remove this point from the technical specifications, since the same fluorophores CFP and YFP can be imaged using LASER line 405 and 488 respectively. Moreover there will not be an overload on these laser lines since they are all Solid State lasers with an approx. life time of about 10000 hours.</p>	<p>Clarification: The 405nm is not good for imaging living samples and cells for long time periods. We see damaged structures accumulate in living tissue faster with the 405nm laser as compared to 445/458, hence 445/458 equivalent laser line will be required in the system. 514 laser will also be required to more precisely excite YFP or equivalent fluorophores.</p>

Dr. Girish Ratanaparakhi

Dr. Sivakumar Vallabhapurapu

Dr. Richa Rikhy

Dr. Sutirth Dey

Mr. Salim Shaikh



ANNEXURE -III

IISER TIRUPATI

**PRE-BID CONFERENCE FOR PROCUREMENT OF SPECTRAL CONFOCAL LASER SCANNING
MICROSCOPE**

COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-0028-16

DATE : 13.06.16

S.No	Query/Clarification Sought	Clarification / Amendment
	-----NIL-----	-----NIL-----

Dr. Girish Ratanaparakhi

Dr. Sivakumar Vallabhapurapu

Dr. Richa Rikhy

Dr. Sutirth Dey

Mr. Salim Shaikh