

PROJECT: PHYTOCHEMICAL EXAMINATION, MOLECULAR  
CHARACTERIZATION AND PROPAGATION OF *ILLCIUM GRIFFITHII* HOOK.  
F. & THOMS.: A MEDICINALLY IMPORTANT RET PLANT OF NORTHEAST  
INDIA FOR IMPROVING ECONOMIC- AND CONSERVATION- STATUS

Sanction No. BT/PR16719/NER/95/263/2015 dated 17.01.2017

Department of Basic Sciences & Social Sciences

(School of Technology)

North-Eastern Hill University, Shillong 793 022, Meghalaya

Dr. Hiranjit Choudhury  
Asst. Prof. in Biotechnology

E-mail: hiranjit\_c@yahoo.com  
hiranjit@nehu.ac.in

**E-Tender Inviting Quotations**

F2. NON-RECURR/BT/HC/EQUIP-E-TENDER/ILLI/1

27/04/2017

Sealed quotations are invited from well-established/reputed dealers/vendors/ distributors for supply of equipments/items for the above mentioned project as per the specification listed in the Annexure-I below. Last date to receive quotations is 15.05.2017 up to 4.00 pm.

The sealed envelope containing the quotation duly super-scribed "**Phytochemical examination, molecular characterization and propagation of *Illicium griffithii* Hook. F. & Thoms.: a medicinally important RET plant of Northeast India for improving economic- and conservation-status**" Deptt. of Basic Sciences & Social Sciences, NEHU, Shillong-22 should reach the undersigned on or before the above mentioned date and time. Quotations received after the due date and time will not be entertained.

The Departmental Purchase Committee (DPC) reserves the right to reject any or all quotations without assigning any reason thereof and does not bind it to accept the lowest rate whatsoever.

**Terms and conditions:**

1. Period allowed : The supply should be completed within 30 days from the date of issue of supply/purchase order otherwise the order will be cancelled.
2. Validity : The applicability of rates in the quotations should be valid for a period of 6 (six) months.
3. Specification : All equipments/items supplied should be of quality recommended and as per sample or specification given. The quotation is liable to be ignored if complete information as asked for is not given therein.
4. Payment : Bills should be submitted in triplicate. Payment will be made on bill system after completion of installation. Necessary bank details must be provided with the bills as payment will be made on line by the University.

Thanking you,

Sincerely yours



(Hiranjit Choudhury)  
Principal Investigator

**Specification for E-tendering of Major and Minor Equipments (Annexure-I)**

**Project title:** “Phytochemical examination, molecular characterization and propagation of *Illicium griffithii* Hook. f. & Thoms.: a medicinally important RET plant of Northeast India for improving economic- and conservation- status”. Principal Investigator: Dr. Hiranjit Choudhury

Sl. No.	Item	Specification	Qty.
<b>Major Equipment</b>			
1.	Laminar flow cabinet	Internal working size: (WxDxH) : 3x2x2 ft; Work table top: Stainless Steel ; Motorised shattered proof Glass door; Air flow velocity: 0.3-0.5 m/s; Particle retention: 0.3 Micron	<b>01No</b>
2.	PCR (Gradient)	Block for 96 x 0.2 ml PCR tube, 71 x 0.5 ml PCR tube and 8 x 12 PCR Plate; Gradient PCR, capable of testing 6/12 different temperatures simultaneously across a gradient range of 1-20°C; Steady Slope Gradient Technology to ensure ramp rates identical in both gradient and normal operation; Heating and Cooling via Peltier Technology; Lid descent and closing pressure-Flexlid technology to accommodate any make PCR consumables with Thermal Sample Protection	<b>01No</b>
3.	Tissue culture racks	For producing Circadian rhythms tissue culture, biotechnology & allied works, with latest Electronic Ballast to produce excellent simulated natural light. Rack Height: 152 cm (5'). Width 127cm (4'-2"); Shelve dimension: 122 W x 45 D cm (50"x18"); Shelf to shelf distance: 35 cm (15") Shelf Color: Square M.S. pipe white shade powder coating finish with anti-corrosive and humidity resistant. Shelf Material: 3mm Hylem sheet.; Shelves: illuminated shelves in one rack 04 nos. Total (incl. top): 5 nos.; Fluorescent Tube lights: Four each 40W tube lights in each shelf of rack, with electronic ballast chokes; Total no. of tube lights in one rack: 16 nos. with electronic ballasts operating system. <ul style="list-style-type: none"> <li>• One mains switch for each castor rack.</li> <li>• One separate switch must be provided for every 2 tubes.</li> <li>• One fuse for one rack.</li> </ul> <b>Four castor wheels in a rack for easy movability.</b> Side holder rods, on each shelf to prevent the fall of materials from the three sides of a shelf, i.e. On the left, right & back. Front side without holder rod.	<b>05 Nos</b>
4.	Laboratory Temperature controller	Temperature Controller (Microclimate Based) To control the temperature of tissue culture room, growth room, hardening room or any specific room. Two Air conditioners should be controlled independently by using this temperature controller. Switching unit should allow an extra heater to run.	<b>01No</b>
5.	Photoperiodic Timer	Photoperiodic simulator digital base timer for light (Display Analogue); Switches ON/OFF lights at the time set by user, despite power failures. Special feature: Photoperiodic repeat cycle 24 hrs minimum ON/OFF period 30 minutes. Backup auto recharging NICAD. Powered output to drive up to 100 tube lights 40W each. Resolution: Adjustable by 15 minutes availability. Thermal safety with 15A cutout. Accuracy ±10 sec/day. Input: 200-240 VAC. Phase-	<b>01 No</b>

		singles. Ambient: 5° to 45°C, RH up to 85% normally.	
6.	Sensor Probe	Platinum Sensor Probe; Specific for room temperature and humidity control. Special feature: Class-A, SI sensor. Technical: Probe dia 6 mm, length 15cm, with sensor cable 5 metres 3 wired extendable to 100 mtrs. Max. var. $\pm 0.2^{\circ}\text{C}$ . Resistance: 100 ohms is standard. Curve: $\alpha = 0.00385/\text{ohms}/^{\circ}\text{C}$ . Sheath diameter: 4mm, length 150mm. Self heating error in $0^{\circ}\text{C}/\text{mW}$ : 0.06(Flowing air, $v=1\text{m/s}$ ), 0.24(Still air). Response time : Moving air ( $v=1\text{m/s}$ ), 50% response in 6 sec. 80 % response in 20 sec. Response normal.	<b>01 No</b>
7.	Air Conditioner (and associated accessories)	1 Ton Hot and Cold split AC; with associated wattage Voltage Stabilizer; stand/clamp for AC outdoor unit; drainage pipe (per meter wise)	<b>02 Nos</b> each, and (pipe/ meter wise)
<b>Minor Equipment</b>			
8.	Spinix Vortex Shaker/ Vortex Mixers	Speed controller; interchangeable mixing heads for use with variety of tubes ( with attachments like top plate 100mm- plate attachment, tube adapter for 18 holes test tubes 10mm, Platform pad for less than 99mm tubes and small vessels, tube adapter for 8 holes test tube 20 mm)	<b>01 No</b>
9.	Spinwin	Maximum rpm 10000, with rotor that supports 1.5 ml tubes and 0.5 ml tubes	<b>01 No</b>
10.	Midi Submarine Electrophoresis unit	With buffer chamber, safety lids with cables, UV transparent tray , combs (1.5mm thick)	<b>01 No</b>
11.	Electrophoresis Power Supply	Should be compatible with various electrophoresis units, support two electrophoresis apparatus, With maximum output of 300V, 400mA and 80 watts	<b>01 No</b>
12.	Hand held UV lamp with automatic safety switch	Should provide radiation wavelength of 365 or 254 nm or a combination of both	<b>01 No</b>
13.	Water Bath	With temperature controller, temperature range from ambient temperature to $100^{\circ}\text{C}$ , thermostatic control with an accuracy of $0.5^{\circ}\text{C}$	<b>01 No</b>
14.	Online UPS	1KVA with minimum 1hour backup	<b>01 No</b>
15.	Micro Pipette	<b>Borosil:</b> (i) 0.2-2 $\mu\text{l}$ capacity (ii) 2-20 $\mu\text{l}$ capacity <b>Tarson:</b> (i) 20-200 $\mu\text{l}$ capacity	<b>01 No</b> each

*Hiranjit Choudhury*

(Hiranjit Choudhury)  
Principal Investigator