NAGALAND UNIVERSITY

(A Central University)

Department of Zoology

***Drosophila* Neurobiology Laboratory**

Headquarters: LUMAMI, ZUNHEBOTO DISTRICT-798627 NAGALAND, INDIA

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Dr. Sarat Chandra Yenisetti, Ph.D., PDF (NIH, USA and Univ. Regensburg, Germany)
Associate Professor & Principal Investigator

No. NU/YS-DNBL/DBT-Tender/2016-1 3-11-2016

TENDER NOTICE

The manufacturers/authorized dealers for the equipment related to Biotechnology/Biology are hereby invited to submit the sealed quotation for the following equipment/software required under the Department of Biotechnology (DBT), India sponsored research project entitled: "**Genome-Wide Functional Screen to Identify Susceptibility Genes for Idiopathic Parkinson's Disease in *Drosophila* Model**" as per details given below within 15 days from the date of norification in the University wesite (http://www.nagalanduniversity.ac.in)

1. Drosophila environmental chamber (1) 2. Water purification unit (1) 3. Pipette set
4. Autoclave (1) 5. Stereozoom (1) 5. ActualTrack™ software

(Dr. Sarat Chandra Yenisetti)
Principal Investigator

C.C. to:
The Vice Chancellor, The Registrar, The Finance officer, The Dean -
The Head, Dept of , The DR-
The System Administrator, Nagaland University, Lumami with a request to upload on the University website.
Project file

Y. Sarat Ch

(Dr. Sarat Chandra Yenisetti)
Principal Investigator

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PARTICULARS OF THE EQUIPMENT:

1. Drosophila Environmental Chamber:

Tender Specification
Programmable light intensity, maximum intensity should be at least 80 µmoles/m²/s of irradiance (at a distance of 15cm or more) from the lights.
At least four lights for uniform illumination in all four corners
Solid-state design controller. Temperature, lights and humidity must be independently controllable with 50 or more program storage
It should be possible to create complex environmental cycles by linking multiple programs.
Temperature range between 4-44°C with all lights on highest intensity. Temperature fluctuation no more than ± 0.5°C of the any set temperature. Auxiliary temp sensor to shut down the system in case of failure of primary temp sensor. Auto restart in case of power failure.
Inner volume of at least 1.1 m³.
At least five shelves which should be epoxy coated steel wire shelving. Door lock. Castor for movement. Power points inside the chamber,
Shelves should be vertically adjustable at step size of 0.5 inches or less.
Extra humidification capable of maintaining higher than ambient humidity to 85% with all lights on.
Refrigeration coil should be phenol-coated. Hot Gas Bypass system for cooling and heating

CFC Free Insulation. Good service support. Users list and performance certificate from Drosophila labs in India. ISO certified service provider,
At least one access port on the incubator wall for external electrical cables.
The unit should be compact. This means that the ration of inner volume (measure in cu.cm) to the footprint area (measure in sq cm) should be > 120. Here footprint area is defined as the area occupied by the unit on the floor (i.e. the outer length x breadth).
Warranty: at least One year warranty. Optional UPS of 5KVA to be quoted.

2. TYPE I WATER PURIFICATION SYSTEM

Feed water Specifications:

should meet or exceed Type II water quality corresponding to analytical –grade water as defined by ASTM, CAP, NCCLS and ISO 3696/BS 3997 with the following Product Water Technical Specifications:

- Resitivity 10-15 Megh Ohms
- TOC Levels less than 30 ppb
- Flow Rate 3 Ltrs/Hr.

TYPE 1 WATER PURIFICATION SYSTEM

Type I water should be produced from two stage mixed bed ion exchange and activated carbon cartridge, and conductivity sensor, and an option for final filter in dispensing arm.

STAGE 1.

- Type II water should pass through feed water specific cartridge for removal of trace contaminants.
- Application Specific cartridges to remove ionic and organic contaminants to trace levels
- To prevent deterioration of water quality during periods of non-use, the ultrapure water system will be able to recirculate water to maintain high water quality.
- Water production unit that can be placed either on the bench , under the bench or on the wall with LCD monitor displaying : resistivity, TOC, level of water in reservoir, volume dispensed and consumables replacement and service clearly written on the display alarms, printing etc.
- Inbuilt quick reference guide.

Dispensing arm:

1. Adjustable height and rotating arm-adjustable to any glassware.

STAGE 2: optional Final Filters Options :

VOC filter.....To remove volatile organic compound

EDS polisher.....Water for endocrine disrupters experiments

UltraPure (Type I) water:

Ultrapure Water (Type 1) Flow Rate (L/min)….0.05-1.5 (Programmable flowrate)

Ultrapure Water Resistivity (MΩ·cm at 25°C)……18.2

Microorganisms (cfu/mL)……..<0.1

Particulates < 0.22 µm (/ mL)……..< 1

Pyrogen Levels (EU/mL) ……..<0.001

RNase Level (pg/mL) ……..< 0.1

DNase Level (pg/µL) ……..< 5

TOC (ppb) ……..< 5

Optional VOC filter……To remove volatile organic compound

Optional EDS Polisher…….Water for endocrine disrupters experiments

- An option of trace level elemental analysis attachment facility which can provide the TOC in ppt or Sub ppt level

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3. Research Pipette (set)

1)Integrated Surface protection-Anti microbial surface
2)Ergonomic design
3)Tip cone should be Autoclavable
4)Advanced volume gearing-Modular volume adjustment mechanism
5)120^0 rotation of finger rest
6)Extremely light weight reduces the risk of Repetitive strain injury
7)Volume locking with "Set and forget" function
8)Separate soft touch tip ejector
9)Super blow out piston with volumes of 50 ul and below volumes.
10)Adjustable finger rest for super comfort
11)In lab calibration and easy maintenance –Easy to open (No special tool required)
12)Five years warranty

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4. Autoclave:

* Semi / Fully Automatic Autoclave with Microprocessor based PID display.
* Temperature and Timer option is user stable.
* Useful for Media preparation as well as Decontamination purpose.
* Capacity of Vessel is minimum 50 /75Lit's.
* Ideal for 105 degree to 135 degree.
* Microprocessor or PLC based controller with high temperature alarms.
* Safety features required for door lock, heater dry run, low water level, safety valves.
* Smooth & easy lid operation required without wear & tear units.
* Joint less Silicon gasket required for door opening & closing purpose.
* Power requirement must be 220/240V AC, 50Hz with Single phase.
* Power consumption of Autoclave is not more than 3,500 watts OR 15 Amp's.
* Vessel design required as per standard norms / safety guidelines.
* Inner vessel must be made up of Stainless Steel material (SS 316 / 304)
* Inner baskets must be made up of Stainless Steel material.
* Drain facility required for Cleaning / washing purpose.
* Product should be CE Certified.
* Locking wheels system required for moment & steady position.
* Traceable Certification is must for display indicators and safety parts.
* After supply one year warranty period is required from original manufacture.

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5. Stereozoom Microscope:

- Should have 7- way LED illumination to provide various incident, oblique and transmitted light for high quality illumination and contrast of any application.
- Should have 4.4:1 Zoom ration and magnification range from 8X – 35X provides high resolution images.
- Should have Bright LED illumination
- Should have 3 Dimensional Viewing
- Should come with Greenough optical system to provide a 3 dimensional view of sample.
- Should come with Eyepieces: 10x/20mm high eye point with 50-75 mm interpapillary distance
- Should have 100 mm working distance
- Should have Tool-free tension adjustment
- Should have Built-in 25,000 hour 6500 K Reflected, 4500 K Transmitted, true daylight
- Should come with Constant-colour temperature power LED illumination for BOTH reflected and transmitted light
- Should come with Variable light intensity control for reflected and transmitted light
- Should have Reflected light and transmitted light should be used separately or simultaneously
- Should come with 3 directional reflected illumination (fill, top and oblique)
- Should have auto-shutoff after 120 minutes
- Should have Sealed stage plate
- Should have Sealed light control panel on rear of stage area
- Should have Built-in universal voltage

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6. ActualTrack™ Software.

General information:

1. All prices mentioned should be at Department of Zoology, Nagaland University, Lumami 798627 Nagaland, India
2. We shall provide valid DSIR certificate along with CDEC.
3. Warranty: Minimum one year with spares
4. For imported equipment a copy of AIRWAY BILL MUST BE SUBMITTED

(Dr. Sarat Chandra Yenisetti)
Principal Investigator

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Nagaland University Lumami - 798627
Nagaland, India.