(For uploading at Institute Website)

Office of Director

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,

SHEIKHPURA, PATNA – 800 14 (Bihar, India)

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Ref. No.: IGIMS / 2023/ 927 / Store

Date: 03 / 04 / 2023.

NOTICE

Sub:- Purchase of "Fundoscopy Machine (Micron-IV) & Ganzfeld ERG System" and "Microelectrode Array (MEA) Stem for Electrophysiology of the cells and tissue" for ICMR Task Project at IGIMS- Patna on Proprietary basis Inviting Comments Thereon.

The Institute intends to purchase "Fundoscopy Machine (Micron-IV) & Ganzfeld ERG System" and "Microelectrode Array (MEA) Stem for Electrophysiology of the cells and tissue" from M/s. Medi Analytika- Chennai on proprietary basis at an estimated expenditure as detailed below:-

1. Fundoscopy Machine (Micron-IV) & Ganzfeld ERG System; Make: Phoenix- Micron, Inc.- USA at total cost of US$193460.00
2. Microelectrode Array (MEA) Stem for Electrophysiology of the cells and tissue; Make: 3Brain AG- Switzerland at total cost of Euro107.330

The above items and documents are being uploaded for open information to all concern to submit objection comments, if any, from any manufacturer regarding proprietary nature of the equipment/item. The comment should be received by office of the Store & Procurement Cell, I.G.I.M.S., Sheikhpura - Patna (Bihar) on or before 20/04/2023 failing which it will be presumed that any other vendor is having no comments/objection to offer.

30/3/23

Director,
I.G.I.M.S. -Patna

phoenix | MICRON®

December 12, 2022

To whom it may concern

Phoenix Micron Inc., a USA-based company, manufactures and distributes Retinal Imaging Microscopes for Rodent *in vivo* studies.

The Phoenix MICRON IV retinal imaging microscope is manufactured by us and is proprietary-in-nature with the below unique features. To our knowledge, no other systems are available with the below mentioned features all together in a single instrument:

- Optics system that is designed for the smaller rodent eye (3mm for mice and 6mm for rats) for Real-Time, In Vivo, Longitudinal Retinal Imaging Studies
- Designed specifically for the challenges and demands of rodent eye and eye-brain research
- In-vivo imaging capabilities to image in bright field, capture fluorescein angiography, and image fluorophores
- Low noise 3-sensor CMOS imager with 3 µm resolution for mouse and 6 µm resolution for rat for bright field and fluorescent imaging studies
- Fluorescein angiography with sufficient resolution to observe red blood cell circulation
- 20 µm depth of focus with 50-degree field-of-view
- Dynamic imaging rate from 0.5 frames per second (fps) to 24 fps
- Two filter wheels with four slots for excitation and emission paired filters. Comes standard with a brightfield and a GFP filter set, leaving 2 slots for custom fluorophore sets.
- Imaging of common reporter molecules such as GFP, YFP, mCherry, dTomato and CFP along with fluorescein angiography and Evan's blue labeling possible, as well as many others.
- Modular benchtop system design allows adding Image-Guided OCT, Image-Guided Laser, Image-Guided Focal ERG and/or Slit Lamp components for extended studies.
- Image-guided OCT includes 2D and 3D segmentation software for evaluation of distinct retinal layers or overall retinal thickness
- Separate objective lenses for mouse and rat for precise imaging studies
- Comes with a uniquely suitable animal stage with 2 degrees of rotation and 3 degrees of translation
- Real-time display with the features to capture still images and videos
- Post processing tools within the capture software for to adjust brightness, contrast, gamma, RGB, sharpness and greyscale conversion for images and captured video.
- Adjustable gain and frame rate to tease out the maximal amount of available signal for faint fluorophores
- Easy-to-use software interface and ergonomic design for onboarding new users

Scott Carr, CEO
Phoenix Micron, Inc., USA

(12)

phoenix | MICRON®

December 12, 2022

To whom it may concern

Phoenix Micron, Inc., a USA-based company, manufactures and distributes a Ganzfeld ERG system for Rodent in-vivo studies.

Model Ganzfeld ERG system manufactured by us is proprietary in nature with the below unique features. To our knowledge, no other systems are available with the below mentioned features all together in a single instrument.

- Maxwellian view illumination technique to measure a full field Ganzfeld ERG
- 365 nm and 504 nm wavelengths of light with Illumination size in a diameter that supports full field studies of both the cone and rod photoreceptors
- Image-guided alignment, supported with a NIR camera at 780 nm to verify pupil alignment to the Ganzfeld lens without disrupting the dark adaptation of the subject animal
- Range of stimulation from 4.7 to 3.1 Set levels over a range of 10^8 log cd sec/m^2.
- Stimulation modes of Single flash, Double/Flicker flash, Alternate two-color flash.
- Continuous background with flash, Light adaptation Chart modes possible.
- Pulse length selectable with the range of 0.2 millisecond to minutes.
- The Contact electrode is part of the single objective lens for both mouse and rat application
- Animal stage with 5 planes of adjustment
- Heater pad matched to animal stage to maintain 37 degrees Celsius for Mouse and Rat
- Corneal contact Electrode - gold-plate objective lens and Platinum needles for tail (ground) and head (reference) electrodes
- Acquisition software with features to remove 60/50 pickup noise, Controllable Bandwidth, Controllable digitization sampling rate, Controllable scan and display time, Controllable LED parameters of Delay, pulse and length
- The Analysis software with the features of Automatic measurement of A and B wave peaks, automatic display of waterfalls, Automatic measurement of OP peaks and implicit time, Averaging with user selection, Export data as CSV or text file
- Easy-to-use ergonomic design with control features

J. Scott Carr, CEO
Phoenix Micron, Inc., USA

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3Brain

3Brain AG
Einsiedlerstrasse 30
8820 Wädenswil
Zürich, Switzerland

Wädenswil, 24 November 2022

To whom it may concern

Declaration of uniqueness

I the undersigned, Mauro Gandolfo, CEO of 3Brain AG, declare that:

3Brain Company (**https://www.3brain.com**) manufactures and distributes a large-scale high-resolution Microelectrode Array (HD-MEA) platform for in-vitro electrophysiology based on CMOS circuits.

At the present day such device is the most advanced on the market considering the number of electrodes simultaneously read-out or stimulated and the quality of the signal (signal-to-noise ratio).

To our knowledge, there are no other systems offering to **record simultaneously from 4096 electrodes, covering up to 26.2 mm²** while maintaining a signal-to-noise ratio of >20dB. There are no other MEA systems **featuring 4096 fully bidirectional electrodes** capable of **recording and stimulating from all the electrodes**, allowing a precise stimulation of specific areas or pathways. Our consumables (HD-MEA chips) are the only ones on the market that can be used with the BioCAM DupleX systems.

Furthermore, the BioCAM DupleX is the only high-resolution MEA platform **compatible with the 3D technology** (see patent **WO2020035570A1**), allowing the penetration of thousands of sensor-integrating micro-pillars into the biological sample, while providing a network of microfluidic channels at the bottom of the sample for passive oxygenation and metabolic waste removal.

Our technology and accessories are sold exclusively by 3Brain AG.

Mauro Gandolfo
CEO
3Brain AG

3Brain AG
Einsiedlerstrasse 30
CH - 8820 Wädenswil
CHE-387460635MWST

3Brain

3Brain AG
Huobstrasse 16
8808 Pfäffikon SZ
Switzerland

101

Pfäffikon (Switzerland), 13 February 2023

TO
The Director
Indira Gandhi Institute of Medical Sciences
Allahabad bank, Bailey Rd,
Sheikhpura, Patna,
Bihar 800014, India

Ref: Your enquiry for high-resolution Microelectrode Array (HD-MEA) platform for in-vitro Electrophysiology

Dear Sir/Madam,

I the undersigned, Marco Aquila, Sales Manager of 3Brain AG, declare that:

- 3Brain AG is a proven and reputable manufacturer of precision Instruments for large-scale high-resolution Microelectrode Array (HD-MEA) platform for in-vitro electrophysiology based on CMOS circuits.
- Medi Analytika India Pvt. Ltd., 6, Adyar Bridge Road, Adyar, Chennai - 600 020, is authorized to submit a bid, process the same further and enter into a contract with you against your requirement for the above goods manufactured by us.
- The spares for devices produced by 3Brain AG are available for at least five (5) years from the date of supply of equipment.
- 3Brain AG has the following bank account:

Account holder	3Brain AG, Huobstrasse 16, 8808 Pfäffikon, SZ (Switzerland)
Bank	Zürcher Kantonalbank Postfach, 8010, Zürich (Switzerland)
Bank clearing no. (BC no.)	700
IBAN	CH70 0070 0130 0092 4480 8
Bank account no.	1300-9244.808
SWIFT address (BIC)	ZKBKCHZZ80A

Marco Aquila
Sales Manager
3Brain AG