DR. B. C. ROY COLLEGE OF PHARMACY AND ALLIED HEALTH SCIENCES, DURGAPUR-713206

PROPOSAL RECEIVED FOR INSTITUTIONALLY FUNDED PROJECT

AY: 2022-2023

SL NO	INVESTIGATOR (S)	TITLE OF THE PROJECT	BUDGET ESTIMATE IN INR	Actual amount Taken	Acutal Expenses	DURATION
1	MR. SAROJ SINGHMURA	Antidiabetic and Aldose Reductase Inhibitory Potential of Cascuta Reflexa Roxbisolated Fraction in High Fat Diet Stetozotocin Nicotinamide Induced Diabetic Rats	Rs. 10,960.00	Not Takan	NA	1 YEAR
2	DR. ANIRUDDHA MUKHERJEE	The investigation of antidiabetic drugs autacoids on Swiss albino mice-a preliminary study	Rs. 22,550.00	Not Takan	NA	1 YEAR
3	DR. AVIJIT CHATTERJEE					
4	MR. SOUMYA MITRA	Synthesis and characterization of biphenyl isoglutamine derivatives and analogues as potential FXR agonists	Rs. 15,000.00	Rs. 15,000.00	Rs. 14,957.00	1 YEAR
5	DR. SUDIP KUMAR MONDAL	Design and Synthesis of Different Coumarin Derivatives as Antimicrobial and Anticander Agents	Rs. 30,000.00	Rs. 30,000.00	Rs. 30,317.00	1 YEAR
6	DR. AMIT KUMAR HALDER					
7	MR. ISMAIL MONDAL					
8	DR. HRIDAY BERA	Synthesis and characterization OF CIPROFLOXACIN-LOADED (1-3)-B-D - glucanbased hypoxia responsive nanoscaffolds as wound dressings	Rs. 30,000.00	Rs. 30,000.00	Rs. 30,130.00	1 YEAR
9	DR. SOUVIK BASAK					
10	DR. PARTHASARATHI PANDA					
11	MR. SUDIPTA BAUR	Synthesis and characterization of Novel amide derivatives of substituted cinnamic acid as a Glucosidase inhibitor agents for an antidiabetic drug	Rs. 10,000.00	Rs. 10,000.00	Rs. 10,206.00	1 YEAR
12	DR. ABHIK SI	Development and Standardization of Conditioned Avoidance Response and Aggressometer - excellent anti-psycotic screening animal model	Rs. 14,400.00	Rs. 14,400.00	Rs. 14,758.00	1 YEAR
13	MS. SUSHRUTA CHAKRABORTY					
14	PROF. (DR) SANTANU CHAKRABORTY	Investigation on Effect of Solvents on Cocrystallization : An Approach to Enhance the Solubility and Dissolution of Poorly Soluble Drug.	Rs. 22,000.00	Rs. 22,000.00	Rs. 22,021.00	1 YEAR
15	MS. MANAMI DHIBAR					
		Total=	RS. 1,54,910.00	Rs. 1,21,400.00	Rs.1,22,389.00	

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Interim report for the progress of institutionally funded project

Title of the Project:

Development and Standardization of Conditioned Avoidance Response and Aggressometer - excellent anti-psychotic screening animal model.

Name of the PI and Co-PIs	Principal investigator –**Dr. Abhik Si** Co-Principal investigator –**Mrs. SushrutaChakraborty**

- **Expected Outcomes for:**

Conditioned Avoidance Response and Aggressometer are excellent boon for evaluation of antipsychotic effect of a drug. Various research studies have shown the efficiency of these protocol. At academic institutional level (UG & PG) student require these models to evaluate anti-psychosis related to their lab/project work but these instruments are having huge market price.

Thus, the present project aims to develop and standardize these models to satisfy the institutional research lab/project need.

- **Actual outcome till today**

Basic design made for CAR

Then CAR instrument mainly composed of a cubical box made of 6 inch plywood (length 45 x width 21 X height 21 cm) . The box having two identical compartments (length 21 Xwidth 21 X height 21 cm), separated by a ply wood having a interconnected open door (length 9 X height 7 cm) between the two compartments. The floor is made up of equally spaced stainless steel cylindrical grid of diameter(1 cm). Total number of grid is 9 in each compartment and the gap between the two consecutive grids are 1.2cm. the inner walls of the each compartment is made black and white stripes of equal thickness. The front face of the compartments having a single open able door made of glass.

Light: both the compartment are having low, indirect incandescent LED lighting (about 20 lx).

Sound: compartments having speaker to produce high sharp pitched sound (3000 HZ)

Electrical stimuli :The grid is encrypted with electrical circuit to provide mild stimuli (0.3 mili amp) .

Circuit to control duration of light and sound and electric impulse.

The design consist of a frontal digital sensor display to indicate the sound frequency (in Hz), amount of light (in lux) and the intensity of electrical stimuli (in amp).

Operating procedure:

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Animal handling:

All the animals that are being used in this equipment are approved by CPCSEA(Committee for the Purpose of Control and Supervision of Experiments on Animals) and institutional animal ethics committee.

Training of Animal using CAR

Mice were trained by placing them in one compartment individually and are allowed to move from that compartment of the shuttle box into other upon presentation of the buzzer tone and applying light (20 lux) (conditioned stimulus) for 10 s at that particular chamber.

If the mice failed to move from one compartment to other, the stimulus is further conditioned with an unconditioned impulse in the form of an electric shock (0.3 mA), delivered to the grid floor of the chamber for a period of 10 s. Each animal was subjected to a daily session of minimum 3 trials to maximum 10 trials separated by 20 s inter- trial interval. The trial terminated once the mice has moved into the other compartment during the conditioned stimulus and unconditioned stimulus period. Crossings made during the conditioned stimulus period are recorded as avoidance response and those made during unconditioned stimulus are recorded as escape response. All animals are trained for a week. Only those animals characterized by a high level of avoidance responding (>90%) are used for further experiments. Separate group of trained mice (n = 5 per group) are employed for individual dose dependent and combined effect of the test and standard drugs. After treatment, mice are placed individually in the shuttle box for the standard 10 trial session of CAR. The results are expressed as number of Crossings which indicates decreased psychotic activity of the drug. The project was done using CAR:

Title of the Project:

TO STUDY THE ROLE OF DRIED ETHANOLIC EXTRACT OF CLITORIA TERNATEA IN TREATMENT OF PSYCHOSIS IN SWISS ALBINO MICE (Using CAR)

Outcome of the Project

The present investigation revealed a significant change in behavioral model of psychosis of mice after oral administration of EECT (100,200,400 mg/kg) without any noticeable change in locomotors activity. The co-administration of sub effective dose of EECT (100mg/kg) with the sub effective dose of Olanzapine significantly decreases psychosis behavior of mice using CAR.

The CAR design has been processed for patent under Indian Patent Act.

Basic design made for foot shock induced Aggressometer

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Foot shock causes prolong increase in aggression that is a useful tool in understanding neuro pharmacology and psycho pharmacology. The foot shock paradigm includes acute or chronic exposure of shock of varying intensity and duration on an electrified grid floor in an electric foot shock apparatus.

The apparatus is made up of ply wood having a length of 35 cm, breadth of 22cm and height of 21 cm with an electrified grid floor. The cuboids box is divided in two identical compartments. The instrument is made by our own from the standard reference.

Dr. Abhik Sil
10/8/23

Ms. Sushmita Chakraborty
10/08/23

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