



पश्चिम बंगाल WEST BENGAL

74AA 245003

THIS MEMORANDUM OF UNDERSTANDING is made on this 29 day of August :
Two Thousand and Sixteen;

BETWEEN

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER) KOLKATA
hereinafter called and referred to as the FIRST PARTY (Which term or expression shall unless
excluded by or repugnant to the context be deem to including its successors, successors-in-
interest and assigns) OF THE FIRST PART

AND

NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS (NIBMG), hereinafter called and
referred to as the FIRST PARTY (which term or expression shall unless excluded by or
repugnant to the context be deem to include its successors, successors-in-interest and assigns)
OF THE SECOND PART.

Rm. Mukherjee

S. Majumdar

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স্থান.....
নাম.....
স্টাম্প ডেভার.....
ছবি/স্বাক্ষর.....

স্বাক্ষর
তারিখ

স্বাক্ষর

WHEREAS the parties herein enter into this M.O.U. for Construction and Operation of a Joint Animal Research Facility;

AND WHEREAS Indian Institute of Science Education and Research (IISER) Kolkata was established in the year 2006 by the Ministry of Human Resource Development (MHRD), Government of India;

AND WHEREAS National Institute of Biomedical Genomics (NIBMG) was established in the year 2009 under the aegis of the Department of Biotechnology (DBT), Government of India;

AND WHEREAS since inception these two institutions are growing up as neighbours, both are located in Kalyani Region of West Bengal, with the vision to promote cutting edge research.

AND WHEREAS IISER, Kolkata, in addition, has a broader mandate of excelling in undergraduate education.

AND WHEREAS a significant number of faculty members of IISER Kolkata and NIBMG are currently working in various areas of biomedical importance and lack of a state-of-the-art Animal Research Facility poses serious constraint in progress of their research.

AND WHEREAS to address this issue both the institutes agree to initiate a joint venture for construction and operation of a joint Animal Research Facility.

NOW THIS MEMORANDUM OF UNDERSTANDING WITNESSETH AND IT HAS BEEN AGREED BY AND BETWEEN THE PARTIES HEREIN as follows:-

1. OBJECT :

To construct and operate a state-of-the art Animal Research Facility to support small animal model based research activities of faculty members from both the institutes.

2. LOCATION:

The proposed joint Animal Research Facility will be created in the permanent campus of IISER Kolkata for which an appropriate land has already been identified and earmarked in the master plan.

3. INITIAL COST:

3.1 COST OF CONSTRUCTION :

The initial cost for construction of the Animal Research Facility (civil + electrical + HVAC) will be borne by IISER Kolkata. The total area of the Animal Research Facility will be about 700 Sq meters as per the approved master plan of IISER Kolkata.

3.2 COST OF ANIMAL CAGES AND BASIC INSTRUMENTATION:

Initial cost of animal cages, basic instruments and furniture to make the Animal Research Facility operational (detailed in Annexure of this document) will be primarily borne by NIBMG. IISER Kolkata will also contribute towards this, if necessary. However, the contribution of IISER Kolkata towards this purpose shall not exceed 30% of the total cost under this head.

Sh. Anjan
R. M. Mukherjee

4. RECURRING COST

4.1 MANPOWER

It is envisaged that a facility manager, a veterinarian, two laboratory technicians and four laboratory attendants will be hired for proper functioning of the Animal Research Facility. Out of these the facility manager and veterinarian shall be hired by IISER Kolkata whereas other personnel shall be recruited by NIBMG. Apart from these the manpower for regular housekeeping will be provided by IISER Kolkata.

4.2 MISCELLANEOUS

The cost of electricity and building maintenance will be borne by IISER Kolkata. NIBMG will take care of the cost required for the repair and AMC of all instruments in the facility. The cost of procurement of animal/animal food/bedding materials/routine consumables will be shared equally between the institutes. Once the facility becomes operational appropriate usage charges will be implemented so as to recover the animal maintenance cost.

5. MANAGEMENT OF THE FACILITY

The facility will be managed by two tiers of committees. There will be an Apex Committee comprising the Directors of both the institutes, Dean, R&D (or equivalent) of both the institutes and couple of faculty members from both the institutes. This committee will decide on all policy matters pertaining to this facility and would also recommend future expansion of the facility while considering the DPR of IISER Kolkata and availability of funds. This committee will also resolve any dispute that may arise in a spirit of mutual trust and responsibility. In addition to this Apex Committee, there will be a User's Committee comprising two/three faculty members from both the institutes, the facility manager and the veterinarian. This committee will decide on the standard operating procedure (SOP) of the facility and will also work out the space/time management mechanism of the facility. Day-to-day issues will be handled by the facility manager in consultation with the veterinarian.

6. FACILITY USAGE POLICY

All faculty members of IISER Kolkata and NIBMG will have access to this facility as long as they follow the CPCSEA (Govt. of India) guidelines for animal handling and the SOP of the facility. All instruments/animal cages shall be freely accessible to all users irrespective of the institute which funded it. No restrictions shall be imposed upon the users for publishing their results coming out of experiments conducted in this facility.

However, the facility should be acknowledged in all such publications and patents. The facility shall not claim any rights to intellectual property.

7. TENURE AND TERMINATION

This Memorandum of Understanding (MOU) shall be valid initially for a period of five years from the date of signing. This MOU shall be reviewed after four years by the Directors of both the institutes in consultation with the users. During this review the terms and conditions may be amended based on mutual consent and the period of extension of the MOU may be decided. Either

St. Lawrence

Dr. Mukherjee

institute may also decide to terminate this MOU after the initial period of five years for which a written notice has to be given at least six months in advance so that the ongoing experiments are allowed to be completed. After termination of the MoU the ownership for all instruments/animal cages/furniture shall remain with the institute which originally funded it. Once this MoU is terminated, neither IISER Kolkata nor NIBMG will be responsible for any losses, financial or otherwise, which the other institution may suffer.

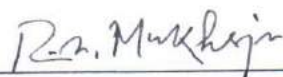
8. TERMINATION:

This Memorandum of Understanding may be terminated by either of the parties by serving three months prior notice in writing and such party shall be liable to be reimbursed the actual cost incurred by it by the other party as well as damages as may be assessed by say of an arbitration referred to hereinafter.

9. DISPUTES:

Disputes: Disputes or differences in relation to or arising out of or touching this MO, or the validity, interpretation, construction, performance, breach or enforceability of this Indenture (collectively Disputes) shall be referred to the arbitration of two Arbitrators, one to be appointed by First Party and another to be appointed by the second party and the place of Arbitration shall be the office of the IISER Kolkata at Salt Lake and the Arbitrators shall resolve the disputes and differences by arbitration under the Arbitration and Conciliation Act, 1996 along with its upto date amendment and the decisions of the Arbitrators, shall be final and binding upon the parties.

IN WITNESS WHEREOF the Parties hereto have set and subscribed their respective hands and seals on the day month and year first above written in presence of:-



DIRECTOR, INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER) KOLKATA



DIRECTOR, NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS (NIBMG)

WITNESSES:

1.



2.



ANNEXURE

Details of contribution of the Department of Biotechnology, Govt. of India, to the internal development and maintenance of IISER Kolkata - NIBMG Animal House and conduct of joint projects proposed by faculty members of NIBMG and IISER Kolkata (through the Systems Medicine Cluster*)

A. Non-Recurring (e.g. equipment, accessories, etc.)

Figures in (Lakhs)

Sl. No.	Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Ventilated Caging System (each of 50 cages) 26 racks	70.00	70.00	42.00			182.00
2	Regular Cage system (including animal cages, water bottles cage racks) (50 cage system)	4.90	4.90	4.20			14.00
3	2 Double Door Autoclave(Appx. 300 litres)	20.00					20.00
4	Cage washing & drying Station	10.00					10.00
5	Cage Changing Laminar Hood	12.00	12.00	8.00			32.00
6	Bio Safety Cabinet + UPS	12.00	12.00				24.00
7	Co2 incubators for tissue culture cells	14.00					14.00
8	Cold Centrifuges for molecular biology and TC labs	10.00		5.00			15.00
9	Small Animal Surgery Table (with spot lights, sink and drainage system)	3.00					3.00
10	Steel Table with attached sink	2.00	1.00	1.00	1.00		5.00
11	CO ₂ Chamber for euthanization	0.90					0.90
12	Perfusion apparatus	4.00					4.00
13	-80 degC Freezer	5.00					5.00

14	-20 degC Freezer	2.00				2.00
15	4 degC Refrigerator	0.90				0.90
16	Liquid Nitrogen Storage tank	1.50	1.50			3.00
17	Balance	0.50	0.50			1.00
18	pH Meter	0.40	0.40			0.80
19	Water Bath	0.20	0.20			0.40
20	Dissection Scope	5.00				5.00
21	Regular Phase Contrast Microscope for Cell Culture	3.00				3.00
22	Water purification system	10.00				10.00
23	DNA Gel Apparatus with power pack	2.00				2.00
24	Gel-documentation system	6.00				6.00
25	Realtime PCR machine+ UPS		10.00			10.00
26	UV-Vis spectrophotometer	6.50				6.50
27	Sterilizers	0.30				0.30
28	Ice flake machine	2.50				2.50
29	Autoclave (drum type)	1.00	1.00			2.00
30	Incinerator	1.00				1.00
31	Trolley	1.20				1.20
32	Steps (ladder)	0.10				0.10
33	Double Door Air Shower	6.90				6.90
34	Air Curtain	1.20				1.20

35	Office furniture	3.00					3.00
36	Lab furniture	8.00					8.00
37	Printer	0.40					0.40
38	Desktop Computer	1.00					1.00
39	Maintenance for small equipment years 3-5	0.00	0.00	10.00	10.00	10.00	30.00
40	Inverted fluorescent/Bright field microscope (with camera)		40.00				40.00
41	<i>In vivo</i> small animal live imaging system with X-ray		100.00				100.00
Total		232.40	253.50	70.20	11.00	10.00	577.10

B. Recurring

B.1 Manpower

Sl. No.	Position	No., Required	Consolidated Emolument per Head per Month	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Veterinarian	1	Rs. 75,000/month with 10% increase per year	9.00	9.90	10.89	11.98	13.18	54.95
2	Technicians (Animal Housing)	3	Rs. 12,000/month with 10% increase per year	4.32	4.75	5.23	5.75	6.32	26.37
3	Technicians(Mol Bio lab)	2	Rs. 18,000/month with 10% increase per year	4.32	4.75	5.23	5.75	6.32	26.37
4	Housekeeping staff	2	Rs. 6,000/month with 10% increase per year	1.44	1.58	1.74	1.92	2.11	8.79
Total				19.08	20.99	23.09	25.40	27.94	116.50

B.2 Consumables

Sl. No.	Item	Quantity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Animal Maintenance including feed, bedding, etc	Various	20.00	20.00	20.00	20.00	20.00	100.00
2	Laboratory Ware including disposable plastic ware, Tissue culture ware, personal protective gear like gloves, shoe covers, masks etc	Various	30.00	30.00	30.00	30.00	30.00	150.00
3	Laboratory reagents like TC media, antibiotics, syringes, SyBR green, PCR kits, DNA isolation kits etc	Various	20.00	20.00	20.00	20.00	20.00	100.00
4			70.00	70.00	70.00	70.00	70.00	350.00

		Year 1	Year 2	Year 3	Year 4	Year 5	Total
B.3	Travel	3.00	3.00	3.00	3.00	3.00	15.00
B.4	Contingency	2.00	2.00	2.00	2.00	2.00	10.00
B.5	Overhead	5.00	5.00	5.00	5.00	5.00	25.00
Sub-total of B (B.1+B.2+B.3+B.4+B.5)		99.08	100.99	103.09	105.40	107.94	516.50
Grand Total (A + B)		331.48	354.49	173.29	116.40	117.94	1093.60

*under consideration by the Dept. of Biotechnology