



राष्ट्रीय जैव-चिकित्सा जीनोमिकी संस्थान

(भारत सरकार की स्वायत्त संस्थान, जैवप्रौद्योगिकी विभाग)

NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS

(An Autonomous Institution of the Government of India, Department of Biotechnology)

AGREEMENT TO COLLABORATIVE WORK (ATC)

ON

"NEXT GENERATION SEQUENCING SERVICE"

BETWEEN

THE

NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS, HAVING ITS REGISTERED OFFICE AT PO: N.S.S, KALYANI, DISTRICT: NADIA, WEST BENGAL, INDIA, PIN: 741251, HEREIN REFERRED TO AS

"NIBMG"

AND

THE UNIVERSITY OF BURDWAN, RAJBATI, PURBO BARDHAMAN: 713104,
HEREIN REFERRED TO AS

"BU",

AND

ON AND FROM 11th. October, 2018 TO 11th. October, 2019

1. Statement of Purpose

1.1 The purpose of this agreement is to establish a framework for research experimentation between BU and NIBMG on "Next Generation Sequencing"

2. Statement of Work

2.1 Where as BU is desirous of undertaking research on ' Next generation Sequencing ' and has the necessary expertise for the overall conduct of the study.

2.2 Whereas NIBMG has the necessary scientific expertise and technology platform required for the said work and is desirous of sharing the same with MBHGL through its **Core Technology Research Initiative** (herein referred to as **CoTeRI**).

2.4 BU will provide NIBMG with required quality and quantity of biospecimens (DNA samples) as required and specified by NIBMG.

2.5 NIBMG shall carry out the necessary sequencing work in its facility.

2.6 NIBMG will provide the generated sequencing data to the Principal investigator of BU for which due credit will be provided to NIBMG with the clause "Next generation sequencing was performed at the National Institute of Biomedical Genomics, Kalyani, India" in the acknowledgement section of any publication/s arising from the data generated at the NIBMG.

2.7 BU will bear costs of all reagents, consumables and associated costs as estimated by NIBMG and provide the same to NIBMG in advance of initiation of work, which may be phased out as mutually agreed.

2.8 NIBMG shall provide Principal investigator of BU with an acknowledgement of the receipt of the money and **invoice**, immediately after receiving the fund as well as statement of expenditure and utilization certificate for the funds remitted by BU within three months after the completion of the work.

2.9 Any intellectual property arising out of this work shall be shared jointly by BU and NIBMG based on the due contribution of the both the side and cost sharing and by mutual understanding.

2.10 NIBMG will maintain complete confidentiality of the work as well as the data and the scientific conclusions drawn therein.

2.11 Remainder, if any, of bio specimens provided by Principal Investigator (PI) of BU to NIBMG for experiments carried out in NIBMG shall be returned by NIBMG to BU after the due completion of the required experiments.

3. General Provisions

3.1 This agreement will be effective upon placement of signature of authorized signatories of BU and NIBMG.

3.2 This agreement may be amended by mutual consent of BU and NIBMG.

3.3 This agreement may be reviewed and terminated by BU or NIBMG by providing a notice to the other parties at least 90 days in advance of the termination date.

3.4 Any dispute arising out of the collaborative work between BU and NIBMG may be settled jointly by Principal Investigator/ Authorised signatory of BU and of NIBMG.

3.5 Principal Investigator of BU undertakes that the required institutional ethics approval for the said work has been duly obtained and that NIBMG is not responsible for any question or dispute that may arise in future regarding the ethics approval required for conducting the experiments in NIBMG.

4. Specific Provisions

4.1 Principal Investigator of BU shall submit samples of DNA/RNA, of appropriate quantity and purity as required by NIBMG.

4.2 Based on the experimental need, Principal Investigator of BU will provide specific sequencing requirements (Whole exome/ Whole genome/ expanded exome/Transcriptome/or others) to CoTeRI, NIBGM. Accordingly, CoTeRI, will provide cost /per sample to the Principal Investigator of BU.

4.2. Principal Investigator of BU will provide the Cost of required minimum of samples size to the NIBGM, which will be decided by the CoTeRI, NIBMG, based on the experimental condition. BU shall transfer total cost of samples to NIBMG's bank account in advance of initiation of work.

For and on behalf of BU

Name: Dr. T. Hossain

Designation: Registrar

Place: Rajbati, Burdwan

Signature: _____

REGISTRAR (Officiating)

Seal:

THE UNIVERSITY OF BURDWAN
BURDWAN-713104

Witness:

Name : Dr. Anupam Basu

Principal Investigator, Dept. of Zoology, BU

Signature: _____

Dr. Anupam Basu
PROFESSOR
Department of Zoology
The University of Burdwan

For and on behalf of NIBMG

Name: Dr. Saumitra Das

Designation: Director

Place: Kalyani, West Bengal

Signature: _____

Seal:

सौमित्र दास / Saumitra Das
निर्देशक / DIRECTOR

राष्ट्रीय जैव-चिकित्सा जीनोमिकी संस्थान
NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS
पी.ओ.: एन.एस.एस., कल्याणी-741251, जिला नदिया, (प.ब.)
P.O.: N.S.S., Kalyani-741251, Dist.-Nadia. (W.B.)

Witness:

Name : Dr. Arindam Maitra

Associate Professor, NIBMG

Signature: _____

AD Maitra

National Institute of Biomedical Genomics
(An Autonomous Institution of Govt. of India, Dept. of Biotechnology)

Core Technologies Research Initiative (CoTeRI)

Principal Investigator

Prof. Anupam Basu

Principal Investigator,

DBT /SERB Funded project

Molecular Biology and Human Genetics Laboratory

Department of Zoology

The University of Burdwan

Purbo Bardhaman: 713104

Date: 24.09.2018

Reference Number: CoTeRI/BU/001/2018-19

Project Name: Expanded Exome Sequencing

1. Some of the experiments to be carried out in this project require expertise and instrumentation of NIBMG. Hence, the Principal Investigator (PI) of BU would like the help of NIBMG in carrying out the experiments in a collaborative manner.
2. PI shall submit 16 samples of genomic DNA of optimal quality and quantity (500 ng DNA per sample) for expanded exome Sequencing.
3. NIBMG will perform quantitation, exome enrichment, sequencing library preparation and 2 x 100 bp paired end read sequencing for samples to generate 30X average sequence depth per sample.
4. The results of the experiments and data will be shared jointly between PI and NIBMG. NIBMG should be provided due credit for the experimental work performed at NIBMG.
5. NIBMG is providing below a statement of cost required for execution of the experiments which will be remitted by PI to NIBMG in advance.
6. NIBMG will provide PI with details of its bank account for the same. NIBMG will also provide PI with an acknowledgement of the receipt of the money.

7. NIBMG will provide PI with the statement of expenditure and utilization certificate for the collaborative work done on the project from funds remitted by PI within three months after the completion of the work.
8. Actual time required for completion of the project is dependent upon the delivery times of all reagents and consumables required for the work and also the queue of work scheduled for the platform at the time of transfer of samples to NIBMG. Projected time required and schedule of experiments will be provided by NIBMG after the receipt of samples.
9. Reagents and consumables cannot be purchased by NIBMG without transfer of the total money required for the entire project from PI. Partial remittance shall not be accepted by NIBMG.

Cost Details:

S. No.	Item	No. of Samples	Total Cost (₹)
1.	DNA quantitation, Sequencing library preparation and 2 x 100 bp sequencing in NovaSeq 6000 S2 flowcell (30X average sequence depth per sample)	16	4,94,400.00
GST @ 18%			88,992.00
Total			5,83,392.00

Total Cost: Rupees five lakhs eighty three thousand three hundred ninety two only.

Arindam Maltra

अरिंदम मैत्रा पीएचडी / Arindam Maltra Ph.D.
 सह-प्रोफेसर / Associate Professor
 राष्ट्रीय जीव-वैज्ञानिक जीनोमिकी संस्थान
 NATIONAL INSTITUTE OF BIOMEDICAL GENOMICS
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 P.O.: N.S.S., Kalyan-741231, Dist.-Nadia (W.B.)

BANK ACCOUNT DETAILS of NIBMG

Name of the Beneficiary Account	National Institute of Biomedical Genomics (CoTeRI)
Bank Account Number	0 5 7 9 0 1 0 4 5 9 1 1 2
Nature of Bank Account	Saving Bank Account
MICR No.	7 0 0 0 2 7 3 0 3
Name of the Bank	<i>United Bank of India</i>
Name and Address of the Bank Branch	Kalyani Branch, Plot No. A-9/7(S), Kalyani, Nadia-741235 91-33-2582-8520 bmkyi@unitedbankofindia.co.in
Bank Branch code	KYI030
IFSC Code	UTBI0KYI030 