

**United States-India Science & Technology Endowment Fund
(USISTEF)**

Indo-US Science & Technology Forum (IUSSTF)
Fullbright House 12,
Hailey Road,
New Delhi – 110001

No. IUSSTF/USISTEF/8th Call/HI-022/2017

Dated 6th September 2018

Award Letter

Sub.: Grant-in-aid for project titled *“Low Cost Companion Diagnostic Test for Predicting Benefit of Adjuvant Chemotherapy in ER+ Breast Cancer”* to Vani Parmar, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre (TMC), Kharghar, Mumbai (Indian Partner), Anant Madabhushi, Department of Biomedical Engineering, Director, Center for Computational Imaging & Personalized Diagnostics, Case Western Reserve University, Cleveland, Ohio (Nodal U.S. Partner) and Mark Lloyd, Inspirata, Inc., Tampa, FL (U.S. Partner) under the Eighth call of the United States-India Science & Technology Endowment Fund.

1. Introduction:

The governments of the United States of America (through the Department of State) and India (through the Department of Science & Technology) have established the **United States-India Science & Technology Endowment Fund (USISTEF)** for the promotion of joint activities that would lead to innovation and entrepreneurship through the application of science and technology. The U.S.-India Science and Technology Endowment Fund activities are implemented and administered through the bi-national **Indo-U.S. Science and Technology Forum (IUSSTF)**.

2. Terms of Reference:

a) The approved budget and milestones as mentioned in this Award Letter cannot be changed without the prior approval of IUSSTF/USISTEF.

b) The project shall be implemented strictly in accordance to the *“Terms & Conditions”* document as signed by all the partners and received by IUSSTF/USISTEF.

3. Project Objective & Milestones:

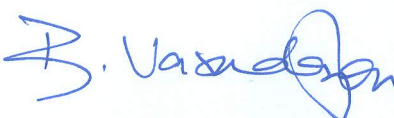
This project proposes an accurate and low-cost prognostic test based solely on digitized Hematoxylin and Eosin (H&E) tissue slides for identifying which Indian women with Estrogen Receptor positive (ER+) breast cancers will receive additional benefit from adjuvant chemotherapy. The technology (image-based risk score; IbRiS) uses computerized image analysis algorithms and needs digitally scanned tissue slide images. IbRiS would have significant cost advantages over molecular-based tests

Milestone	Duration (in Month)	Milestone Details
Milestone 1	6	Obtaining and digitizing the H&E slides of patients from TMH and collating associated clinical data. Optimize IbRiS assay for predicting outcome in ER+ breast cancer patients using a cohort of Indian women from TMH who have undergone hormonal therapy alone and hormonal+chemotherapy.
Milestone 2	6	Performing quality check of slides. If needed re-create new slides, Establish the regulatory pathway for translation of the IbRiS assay in India.
Milestone 3	6	Obtaining and digitizing H&E slides and collecting clinical data for the validation cohort, Independently validate IbRiS in predicting long term outcome in ER+ breast cancer patients from TMH collected by the Indian partner.
Milestone 4	6	For the validation set, performing quality check of slides. If needed re-create new slides. Create and lock down a commercial prototype of the IbRiS assay for translation to the Indian market.

3. Budget Details:

Award of **Indo-U.S. Science and Technology Forum (IUSSTF)** is hereby accorded to the above mentioned project at a total cost of **Rs. 2,31,00,000/- (Rupees two crore thirty one lakh only)** out of which **Rs. 58,59,000/- (Rupees fifty eight lakh fifty nine thousand only)** to Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Centre, Mumbai (Indian Partner), **Rs. 1,16,21,000/- (Rupees one crore sixteen lakh twenty one thousand only)** to Case Western Reserve University, Cleveland (Nodal U.S. Partner) and **Rs. 56,20,000/- (Rupees fifty six lakh twenty thousand only)** to Inspirata, Inc., Tampa (U.S. Partner) for a duration of **24 months**. The items of expenditure for which the total allocation of **Rs. 2,22,00,000/-** has been approved for a period of **24 months** are given below:

.....2/-



S. No.	Expenditure Head	Tata Memorial Centre, Kharghar, Mumbai (Indian Partner)	Case Western Reserve University, Cleveland (Nodal U.S. Partner)	Inspirata, Inc., Tampa, FL (U.S. Partner)	Total (In INR)
I.	Equipment	99,000/-	1,70,000/-	56,20,000/-	2,69,000
II.	Manpower	34,80,000/-	1,08,11,000/-		1,42,91,000
III.	Consultancy	0/-	56,20,000/-		56,20,000
IV.	Consumables	15,30,000/-	0/-		15,30,000/-
V.	Travel	6,50,000/-	6,40,000/-		12,90,000/-
VI.	Contingencies	1,00,000/-	0/-		1,00,000/-
Grand Total		Rs. 58,59,000/-	Rs. 1,16,21,000/-	Rs. 56,20,000/-	Rs. 2,22,00,000/-

A break-up of the grant-in-aid allocated to Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), **Tata Memorial Centre (TMC), Mumbai (Indian Partner)** for various Milestones for a duration of **24 months** is as follows:-

S. No.	Expenditure Head	Milestone 1	Milestone 2	Milestone-3	Milestone-4	Total (In INR)
I.	Equipment	99,000/-	0/-	0/-	0/-	99,000/-
II.	Manpower	17,40,000/-	0/-	17,40,000/-	0/-	34,80,000/-
III.	Consumables	8,30,000/-	0/-	7,00,000/-	0/-	15,30,000/-
IV.	Travel	3,50,000/-	0/-	3,00,000/-	0/-	6,50,000/-
V.	Contingencies	50,000/-	0/-	50,000/-	0/-	1,00,000/-
Total		30,69,000/-	0/-	27,90,000/-	0/-	58,59,000/-

A break-up of the grant-in-aid allocated to **Case Western Reserve University, Cleveland (Nodal U.S. Partner)** for various Milestones for a duration of **24 months** is as follows:-

S. No.	Expenditure Head	Milestone 1	Milestone 2	Milestone-3	Milestone-4	Total (In INR)
I.	Equipment	1,70,000/-	0/-	0/-	0/-	1,70,000/-
II.	Manpower	35,00,000/-	35,00,000/-	20,00,000/-	18,11,000/-	1,08,11,000/-
III.	Travel	2,40,000/-	1,50,000/-	1,50,000/-	1,00,000/-	6,40,000/-
Total		39,10,000/-	36,50,000/-	21,50,000/-	19,11,000/-	1,16,21,000/-

A break-up of the grant-in-aid allocated to **Inspirata, Inc., Tampa (U.S. Partner)** for various Milestones for a duration of **24 months** is as follows:-

S. No.	Expenditure Head	Milestone 1	Milestone 2	Milestone 3	Milestone 4	Total (In INR)
I.	Consultancy	20,20,000/-	20,00,000/-	10,00,000/-	6,00,000/-	56,20,000/-
Total		20,20,000/-	20,00,000/-	10,00,000/-	6,00,000/-	56,20,000/-

5. Award of IUSSTF is also accorded to the release of **Rs. 89,99,000/- (Rupees eighty nine lakh ninety nine thousand only)** being released as the first instalment of the grant-in-aid out of **Rs. 30,69,000/- (Rupees thirty lakh sixty nine thousand only)** to Advanced Centre for Treatment, Research and Education in Cancer, **Tata Memorial Centre, Mumbai (Indian Partner)**, **Rs. 39,10,000/- (Rupees thirty nine lakh ten thousand only)** to **Case Western Reserve University, Cleveland (Nodal U.S. Partner)** and **Rs. 20,20,000/- (Rupees twenty lakh twenty thousand only)** to **Inspirata, Inc., Tampa (U.S. Partner)** being the first installment of the grant-in-aid for implementation of the said project.

6. The amount of **Rs. 89,99,000/- (Rupees eighty nine lakh ninety nine thousand only)** being released as the first instalment of the grant-in-aid out of **Rs. 30,69,000/- (Rupees thirty lakh sixty nine thousand only)** to Advanced Centre for Treatment, Research and Education in Cancer, **Tata Memorial Centre, Mumbai (Indian Partner)**, **Rs. 39,10,000/- (Rupees thirty nine lakh ten thousand only)** to **Case Western Reserve University, Cleveland (Nodal U.S. Partner)** and **Rs. 20,20,000/- (Rupees twenty lakh twenty thousand only)** to **Inspirata, Inc., Tampa (U.S. Partner)** for implementation of the said project by means of RTGS/NEFT transaction as per their Bank details given below: -

.....3/-

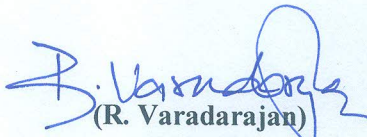


7. The U.S. Partner M/s Inspirata, Inc., Tampa approved grant will be released to Nodal U.S. Partner M/s Case Western Reserve University, Cleveland. The Nodal U.S. partner will be responsible towards the disbursement of the approved grant to the Other U.S. Partner.

Lead Partner	Tata Memorial Centre, Kharghar, Mumbai (Indian Partner)	Case Western Reserve University, Cleveland (U.S. Partner)
Beneficiary Name (<i>Account Holder</i>)	Tata Memorial Centre - ACTREC	Case Western Reserve University
Account No.	1797305746	0101042963
Bank Name & Branch	Central Bank of India, Sector -22, Kharghar, Navi Mumbai - 410210	Key Bank, 127 Public Square, Mailcode OH-01-27-1711
Account Type	Current	Checking
IFSC Code / Swift Code	CBIN0284047 MICR: 400016114	KEYBUS33 Routing No. 041001039
Email ID of Partners	vaniparmar@gmail.com; axm788@case.edu; anant.madabhushi@case.edu; MLloyd@inspirata.com	

To,
Finance Division,
Indo-U.S. Science and Technology Forum, New Delhi.

1. **Rajiv Kumar Tayal, ES-USISTEF and ED-IUSSTF, New Delhi**
2. **Vani Parmar (Indian Partner)**
Surgical Oncology, Breast Services
Advanced Centre for Treatment, Research and Education in Cancer (ACTREC),
Tata Memorial Centre (TMC), Kharghar, Navi Mumbai – 410210, Maharashtra
(Kindly acknowledge the receipt of grant)
3. **Dr. Anant Madabhushi (Nodal U.S. Partner)**
F. Alex Nason Professor II, Department of Biomedical Engineering
Director, Center for Computational Imaging & Personalized Diagnostics
Case Western Reserve University, Wickenden, Room 523
2071 Martin Luther King Drive
Cleveland, Ohio 44106
(Kindly acknowledge the receipt of grant)
4. **Dr. Mark Lloyd (U.S. Partner)**
Executive Vice President & Founder
Inspirata, Inc.
One North Dale Mabry Hwy.
Suite 600, Tampa, FL 33609
5. Program File
6. File Copy


(R. Varadarajan)
Controller