

Administrative  
(Application No: MAP/2015/42)

File No. BT/PR16804/NER/95/294/2015  
GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
(NER-BPMC)  
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Block-2, 7<sup>th</sup> Floor,  
CGO Complex, Lodhi Road  
New Delhi-110003  
Dated: 7 / 11 / 2016

**ORDER**

Sanction of the President is hereby accorded under Rule 18 of the Delegation of Financial Powers Rules, 1978 for the implementation of the project under 'DBT's Twinning programme for the NE' titled "In vivo hypocholesterolemic effect of bioconjugates of starch nanoparticles with gamma oryzanol and tocotrienols extracted from rice bran" by Dr. Charu Lata Mahanta, Tezpur University, Napaam, Tezpur and Dr. Sanjay Kumar Banerjee, Translational Health Science and Technology Institute (THSTI), Faridabad, Gurgaon at a total cost of ₹ 79.60 lakhs (Rupees Seventy Nine lakhs Sixty Thousand only) for a period of three years on the terms and conditions detailed as under:

**2.0 The Project:**

**2.1 Project Title: In vivo hypocholesterolemic effect of bioconjugates of starch nanoparticles with gamma oryzanol and tocotrienols extracted from rice bran**

**2.2 Project Investigators**

**2.2.1 Principal Investigator:** **Dr. Charu Lata Mahanta**  
(Parent Institute) Professor  
Department of Food Engineering and Technology  
Tezpur University, Napaam,  
Sonitpur- 784028, Tezpur

**2.2.2 Co-PI Name:** **Dr. Mattaparthi Venkata Satish Kumar**  
(Parent Institute) Assistant Professor  
Department of Molecular Biology and  
Biotechnology  
Tezpur University, Napaam,  
Sonitpur- 784028, Tezpur

**2.2.3 Principal Investigator:** **Dr. Sanjay Kumar Banerjee**  
(Collaboration Institute) Scientist E  
Drug Discovery Research Centre (DDRC)  
Translational Health Science and Technology  
Institute (THSTI), NCR Biotech Science Cluster, 3<sup>rd</sup>  
Milestone, Faridabad-121001, Gurgaon Expressway  
PO box 04, Faridabad.

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2.2.4 Co-PI Name:  
(Collaboration Institute)

Dr. Shilpa Janwal  
Scientist C  
Drug Discovery Research  
Centre (DDRC)  
Translational Health Science and Technology  
Institute (THSTI), NCR Biotech Science Cluster,  
3rd Milestone, Faridabad-121001, Gurgaon  
Expressway, PO box 04, Faridabad.

2.3 Objectives:

1. To extract two hypocholesterol compounds ( $\gamma$ -oryzanol and tocotrienols) from bran of rice varieties of Assam.
2. To synthesize starch nanoparticle from broken rice.
3. To study the interaction of  $\gamma$ -oryzanol and tocotrienols with starch nanoparticle (preparation of bionanoconjugate).
4. To determine anticholesterol effect of  $\gamma$ -oryzanol, tocotrienols and their bionanoconjugates in vivo.

2.4 Time Schedule:

The duration of the project is **three years** from the date of issue of sanction order.

2.5 Equipment Details:

2.5.1 Tezpur University, Napaam, Tezpur

Sl. No.	Description of equipment	Grant Recommended (₹ in lakhs)
1.	HPLC	25.15
2.	Ultrasonicator (probe)	3.76
Total		28.91

2.5.2 Translational Health Science and Technology Institute (THSTI), Faridabad, Gurgaon

Sl. No.	Description of equipment	Grant Recommended (₹ in lakhs)
1.	Non-invasive small animal tail blood pressure systems	4.94
Total		4.94

*hr*

## 2.6 Manpower:

### Fellowship Conditions:

A year wise detail of manpower as proposed has been furnished below. HRA will be as per the Govt. Norms, an indication as stated below for the JRF and SRF's emoluments will be provided as a part of sanction order. JRF shall be ₹ 25,000/- + HRA for the 1st two years and ₹ 28,000/- + HRA for the 3rd year for SRF and applicable, (JRF - Post graduate Degree in Basic Science with NET qualification or graduate degree in Professional course with NET qualification or post graduate degree in professional course)

JRF without NET qualification shall be ₹ 12,000/- + HRA for the 1st two years and ₹ 14,000/- + HRA for the 3rd year for SRF

- For JRF/SRF/RA salary is as per the revised DST OM SR/S9/Z-09/2012, dated October 21, 2014.
- For Project Assistant salary is as per the revised DST OM C.30011/1/2007-IFD, dated 21<sup>st</sup> July 2008.

### 2.6.1 Tezpur University, Napaam, Tezpur

S. No.	Position (No.)	Emolument	₹ in lakhs			
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 <sup>st</sup> & 2 <sup>nd</sup> yr SRF @ ₹ 28,000/- + 10 % HRA for 3 <sup>rd</sup> yr	3.30	3.30	3.69	10.29
Total			3.30	3.30	3.69	10.29

### 2.6.2 Translational Health Science and Technology Institute (THSTI), Faridabad, Gurgaon

S. No.	Position (No.)	Emolument	₹ in lakhs			
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
1.	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1st & 2nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3rd yr	3.90	3.90	4.36	12.16
Total			3.90	3.90	4.36	12.16

## 2.7 Budget Estimate:

The total cost of the project is ₹ 79.60 lakhs (Rupees Seventy Nine lakhs Sixty Thousand only) as per budget summary given below:

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2.7.1 Tezpur University, Napaam, Tezpur

Heads		(₹ in lakhs)		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
I. Non-Recurring (Equipments and accessories)	28.91	0.00	0.00	28.91
<b>Sub Total- I</b>	<b>28.91</b>	<b>0.00</b>	<b>0.00</b>	<b>28.91</b>
II. Recurring				
1. Manpower				
2. Consumables	3.30	3.30	3.69	10.29
3. Travel	1.50	2.50	2.00	6.00
4. Contingency	0.25	0.30	0.45	1.00
5. Overhead charges	0.50	0.50	0.50	1.50
<b>Sub Total- II (1-5)</b>	<b>0.25</b>	<b>0.30</b>	<b>0.45</b>	<b>1.00</b>
<b>GRAND TOTAL (I+II)</b>	<b>34.71</b>	<b>6.90</b>	<b>7.09</b>	<b>48.70</b>

2.7.2 Translational Health Science and Technology Institute (THSTI), Faridabad, Gurgaon

Heads		(₹ in lakhs)		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Total
I. Non-Recurring (Equipments and accessories)	4.94	0.00	0.00	4.94
<b>Sub Total- I</b>	<b>4.94</b>	<b>0.00</b>	<b>0.00</b>	<b>4.94</b>
II. Recurring				
1. Manpower	3.90	3.90	4.36	12.16
2. Consumables	2.50	4.00	4.00	10.50
3. Travel	0.25	0.25	0.25	0.75
4. Contingency	0.35	0.35	0.35	1.05
5. Overhead charges	0.50	0.50	0.50	1.50
<b>Sub Total- II (1-5)</b>	<b>7.50</b>	<b>9.00</b>	<b>9.46</b>	<b>25.96</b>
<b>GRAND TOTAL (I+II)</b>	<b>12.44</b>	<b>9.00</b>	<b>9.46</b>	<b>30.90</b>

(i) Grand total for 3 years (48.70+30.90) = ₹ 79.60 lakhs

(ii) Total for 1<sup>st</sup> year release (34.71+12.44) = ₹ 47.15 lakhs

2.8 Other Terms & Conditions:

2.8.1 The other terms and conditions governing this sanction are attached at **Annexure-I**.

2.8.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institute on a ₹ 100/- stamp paper in the format given at **Annexure II** and the subsequent releases will be made only after signing of MoA by the grantee institute and its acceptance by DBT. All pages need to be signed by the PI and the forwarding authority and the MoA returned to DBT within 30 days of issue of this letter.

2.8.3 The Non-recurring items must be procured and installed within 6 month period from the date of sanction.

2.8.4 In case the amount of grant-in-aid is refunded, the whole or a part amount of the grant, with an interest at 10% per annum there on shall be recovered.

*[Signature]*

2.8.5 No international travel will be undertaken from the sanctioned project grant unless specified otherwise.

2.8.6 The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and statement of Expenditure. The interest so earned will be treated as created to the institute / Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Account.

**2.9 Additional Terms & Conditions, specific for Twinning R&D program for NER:**

2.9.1 Both NER & Rest of India (RoI), Institutions scientists should work together for the objectives stated in the sanction of the project and any deviation from this would attract closure of the project at any point of time.

2.9.2 In the project review meetings, both the PI's from NER & RoI Institutions should participate & make presentation.

2.9.3 The outcomes of the project such as research papers, patents, copy rights etc. should be made jointly.

2.9.4 The NER Scientists are to be trained at the collaborating institute appropriately to empower the NER Scientists.

2.9.5 The project personal such as Research Associate, JRF/SRF, Research Assistant are also to be trained at least once in the collaborating national institute.


2.9.6 The collaborating institute scientist should visit NER institutions more frequently to guide NER scientists in design and conduct of experiments.

2.10 This issues under the powers delegated to this Department and with the concurrence of IFD, DBT vide their Dy No. 102/I.F.D/SAN/2122/2016-2017 Dated 22/08/2016.

2.10.1 This sanction order has been noted at Serial No. <sup>239-240</sup>..... in the Register of Grants.

2.10.2 The accounts of grantee institution shall be open to inspection by sanctioning auditory / audit.

3.0 M/S Biotech Consortium India Ltd (BCIL), Anuvrat Bhawan, 210, Deen Dayal Upadhyay Marg, New Delhi- 110002, is administrating the North Eastern Region Biotechnology Programme Management Cell (NER-BPMC) of the DBT.

  
(Dr. T. Madhan Mohan)  
Advisor, DBT