

DIRECTORATE OF RESEARCH (VETERINARY) ASSAM AGRICULTURAL UNIVERSITY KHANAPARA, GUWAHATI-781022

ORDER

With the approval of the Hon'ble Vice-Chancellor, Assam Agricultural University, sanction is hereby accorded for implementation of the research project entitled "Development of an Autologous Endophytic Bacterial Consortium to Enhance Seed Germination and Growth Promotion of 'Kopou phul' (*Rynchostylis retusa*), the State Flower of Assam" for a period of 2 years at a total cost of Rs. 7,15,000.00 (Rupees Seven lakhs fifteen thousand only) under the 'Microgrant' component of the DBT-funded Advanced Level State Biotech Hub (ALSBT Hub) project on the terms and conditions detailed hereunder –

1. The Project:

- 1.1 Title: 'Development of an Autologous Endophytic Bacterial Consortium to Enhance Seed Germination and Growth Promotion of 'Kopou phul' (*Rynchostylis retusa*), the State Flower of Assam'
- 1.2 Name and address of the investigators:

Principal Investigator: Dr. Rupak Kumar Sarma, Assistant Professor, Department of Botany, SBMS College, Sualkuchi, Assam – 781103

Collaborating PI, if any: Dr. Luit Moni Barkalita, Assistant Professor, Dept. of Animal Biotechnology, College of Veterinary Science, AAU, Khanapara, Guwahati-781022

1.3 Objectives:

- 1. To isolate and characterize the plant growth-promoting endophytic bacteria colonizing inside different plant organs (aerial roots, stems, and leaves) of *Rynchostylis retusa*
- 2. To examine the *in vivo* seed germination and growth-promoting activity of the potential PGP (plant growth promoting) endophytes in the host plants
- 1.4 Time schedule: The duration of the project is 2 years from the date of this sanction order.
- 1.5 Project cost:
 - 1.5.1 The total cost of the project cost is Rs. 7,15,000.00 (Rupees Seven lakhs fifteen thousand only) as per the details given below:

A. For the PI:

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Budget head	Year I (Rs.)	Year II (Rs.)	Total (Rs.)
A. Non-recurring:			
Equipment and accessories	1,50,000.00	Sager seems	1,50,000.00
Subtotal (A)	1,50,000.00	-	1,50,000.00
B. Recurring:			
Consumables	1,40,000.00	80,000.00	2,20,000.00
Contingencies	40,000.00	10,000.00	50,000.00
Travel	20,000.00	10,000.00	30,000.00
Others, if any	-	-	-
Overhead charges	10,000.00	5,000.00	15,000.00
Subtotal (B)	2,10,000.00	1,05,000.00	3,15,000.00
Total (A+B)	3,60,000.00	1,05,000.00	4,65,000.00

B. For the Collaborating PI:

Budget head	Year I (Rs.)	Year II (Rs.)	Total (Rs.)
A. Non-recurring:			2 00
Equipment and	-	~	-
accessories			
Subtotal (A)	-	-	ene.
B. Recurring:			AND THE STATE OF T
Consumables	1,30,000.00	1,00,000.00	2,30,000.00
Contingencies	10,000.00	10,000.00	20,000.00
Travel	*	* -	
Others, if any	-	_	-
Overhead charges	w		-
Subtotal (B)	1,40,000.00	1,10,000.00	2,50,000.00
Total (A+B)	1,40,000.00	1,10,000.00	2,50,000.00

- 1.6. Equipment: Details of the equipment sanctioned for the project are given at Annexure-I.
- 2.1. Terms and conditions:
- Detailed Terms and Conditions of the grant are given separately at Annexure-II.
- 2.2. Memorandum of Agreement: A Memorandum of Agreement (MoA) will be signed between the Director of Research (Veterinary), AAU and the grantee institution on a non-judicial stamp paper of Rs. 100.00 in the enclosed format and the release of grants will be subject to submission of signed MoA and Terms & Conditions of the grant.

(Niranjan Kalita) Director of Research (Veterinary) AAU, Khanapara, Guwahati-22

Memo No. 99/DRV/341/2022-23/Microgrants/ 5050 - 59 Copy for information and necessary action to:

Dated: 31.10.22

- The Secretary to the Hon'ble Vice-Chancellor, Assam Agricultural University, Jorhat-785013.
 This has reference to the Hon'ble Vice-Chancellor's approval in the N¹³, Dated 15.10.2022
- 2. The Registrar, AAU, Jorhat-785013
 - 3. The Comptroller, AAU, Jorhat-785013
- 4. Dr. P. Borah, Professor & Head, Dept. of Animal Biotechnology and Project Coordinator, DBT-funded ALSBT Hub project, College of Veterinary Science, AAU, Khanapara, Guwahati-781022
- 5. The Principal, SBMS College, Sualkuchi, Assam 781103.
- 6. Dr. Rupak Kumar Sarma, Assistant Professor, Department of Botany, SBMS College, Sualkuchi, Assam 781103.
- 7. Dr. Luit Moni Barkalita, Collaborating PI & Assistant Professor, Dept. of Animal Biotechnology, College of Veterinary Science, AAU, Khanapara, Guwahati-781022
- 8. Dy. Comptroller, AAU, Khanapara, Guwahati-22
- 9. Account Section, Directorate of Research (Vety.), AAU, Khanapara, Guwahati-781022
- 10. Office copy

(Niranjan Kalita) Director of Research (Veterinary) AAU, Khanapara, Guwahati

LIST OF APPROVED EQUIPMENT

Details of equipment sanctioned for the implementation of the project entitled, "Development of an Autologous Endophytic Bacterial Consortium to Enhance Seed Germination and Growth Promotion of 'Kopou phul' (Rynchostylis retusa), the State Flower of Assam"

SI. No.	Name of the equipment	Number	Cost (Rs.)
1.	Rotary Shaker	1	1,50,000.00
	Total	1	1,50,000.00

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(Niranjan Kalita) Director of Research (Veterinary) AAU, Khanapara, Guwahati-22