

BT/PR12649/TDS/121/4/2014
Government of India
Ministry of Science & Technology
Department of Biotechnology

Block-2, 6-8th Floors,
CGO Complex, Lodi Road,
New Delhi – 110003

Dated: 26.06.2018

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 entitled "Identification of thermos-tolerant bivoltine breeds based on expression of heat shock protein coding genes in silkworm, *Bombyx mori* L." at a total cost of ₹ 83.80 lakhs (Rupees Eighty Three lakhs Eighty thousand only) jointly at Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Hindupur (₹ 48.86 lakhs), Dr. Babasaheb Ambedkar Marathwada University (DBAMU), Aurangabad (₹ 24.76 lakhs) and Sri Padmavati Mahila Visvavidyalayam (SPMV), Tirupati (₹ 10.18 lakhs) on the terms and conditions detailed here under:

2.0 The Project:

2.1 Project Title: Identification of thermos-tolerant bivoltine breeds based on expression of heat shock protein coding genes in silkworm, *Bombyx mori* L.

2.2 Investigator:

**Coordinator &
Implementing
Institute:**

Dr. P. J. Raju
Director, Andhra Pradesh State Sericulture Research and
Development Institute (APSSRDI), Kirikera – 515211, Hindupur,
Andhra Pradesh

**Name of PI(s) &
Implementing
Institute:**

1. Dr. P. J. Raju, Director, Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Kirikera – 515211, Hindupur, Andhra Pradesh
2. Prof. G. D. Khedkar, Paul Hebert Centre for DNA Barcoding and Biodiversity Studies, Dr. Babasaheb Ambedkar Marathwada University (DBAMU), Aurangabad – 431004
3. Prof. D. M. Mamatha, Department of Sericulture, Sri Padmavati Mahila Visvavidyalayam (SPMV), Padmavathi Nagar, Near West Railway Station, Chittoor, Tirupati – 517502

**Name of the Co-PI(s)
& Implementing
Institute:**

1. Dr. H. Lakshmi, Scientist B, Department of Sericulture, APSSRDI, Hindupur
2. Dr. J. Seetharamulu, Scientist B, Department of Sericulture, APSSRDI, Hindupur

2.3 Project Objectives:

1. Identification of high temperature tolerant bivoltine strains of silkworm
2. Transcriptomics based approaches for identification of genes expressed upon thermal stress
3. Functional validation of the identified genes responsible for heat tolerance by RNAi mediated knockdown experiments

Mohd. Aslam

4. Introgression of validated heat shock genes to other commercial bivoltine strains
5. Studies of physiological parameter in silkworm with special reference to thermo-tolerance.

2.4 Time Schedule:

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

2.5 Manpower:

S. No.	Designation	No. of Positions	Emoluments (in Rupees)
I. APSSRDI, Hindupur			
1.	Junior Research Fellow*	One	₹ 25,000/- fixed per month + 10% HRA for year I and II, ₹ 28,000/- fixed per month + 10% HRA for year III
2.	Technical Assistant	One	₹ 22,000/- fixed per month
3.	Field Assistant	One	₹ 14,000/- fixed per month
II. DBAMU, Aurangabad			
1.	Research Associate – I*	One	₹ 36,000/- fixed per month + 20% HRA
III. SPMV, Tirupati			
1.	Project Fellow	One	₹ 18,000/- fixed per month

* As per DST Om No. SR/S9/Z-09/2012 dated 21.10.2014;

2.6 Equipment:

S. No.	Name of Equipment	No. of Items	Estimated Cost (₹ in lakhs)
I. APSSRDI, Hindupur			
1.	Electrophoresis Units	One	0.60
2.	-20° deep freezer	One	1.00
3.	Refrigerated table top centrifuge	One	2.00
4.	Micropipette sets	Three	1.00
5.	Autoclave	One	1.00
Total:		Seven	5.60

2.7 Project Cost:

The year-wise estimated cost of the project is as under:

I. Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Hindupur

S. No.	Item	Amount (₹ in lakh)			
		Year I	Year II	Year III	Total
A.	Nonrecurring				
1.	Equipment	5.60	0.00	0.00	5.60
B.	Recurring				
1.	Manpower	7.62	7.62	8.02	23.26
2.	Consumables	3.00	4.00	4.00	11.00
3.	Travel	1.00	1.00	1.00	3.00
4.	Contingencies	1.00	1.00	1.00	3.00
5.	Overheads	1.00	1.00	1.00	3.00
Total I (A+B):		19.22	14.62	15.02	48.86

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II. Dr. Babasaheb Ambedkar Marathwada University (DBAMU), Aurangabad

S. No.	Item	Amount (₹ in lakh)			
		Year I	Year II	Year III	Total
A.	Nonrecurring				
1.	Equipment	0.00	0.00	0.00	0.00
B.	Recurring				
1.	Manpower	5.18	5.18	0.00	10.36
2.	Consumables	5.00	4.00	3.00	12.00
3.	Travel	0.50	0.50	0.50	1.50
4.	Contingencies	0.30	0.30	0.30	0.90
5.	Overheads	0.00	0.00	0.00	0.00
Total II (A+B):		10.98	9.98	3.80	24.76

III. Sri Padmavati Mahila Visvavidyalayam (SPMV), Tirupati

S. No.	Item	Amount (₹ in lakh)			
		Year I	Year II	Year III	Total
A.	Nonrecurring				
1.	Equipment	0.00	0.00	0.00	0.00
B.	Recurring				
1.	Manpower	2.16	2.16	2.16	6.48
2.	Consumables	1.00	1.00	0.50	2.50
3.	Travel	0.50	0.50	0.00	1.00
4.	Contingencies	0.10	0.00	0.10	0.20
5.	Overheads	0.00	0.00	0.00	0.00
Total III (A+B):		3.76	3.66	2.76	10.18
Grand Total (I+II+III):		33.96	28.26	21.58	83.80

3. The nonrecurring expenditure involved is debit to Demand No. 85: Department of Biotechnology; 3425: Other Scientific Research (Major Head); 60: Others (Sub-Major Head); 60.200: Assistance to other Scientific Bodies (Minor Head); 29: Biotechnology Research and Development; 29.17: Assistance for Research and Development; 29.17.35: Grants for Creation of Capital Assets for the year 2018-2019 and the recurring expenditure involved is debit to 29.17.31: Grants-in-Aid General for the year 2018-2019.
4. **Other terms and conditions:**
- 4.1 The other terms and conditions governing this sanction are attached at Annexure 'I'.
- 4.2 As per rule 236(1) of GFR 2017, audit of account – the Accounts of all grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPE) Act, 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organization is called upon to do so.
- 4.3 A Memorandum of Agreement (MOA) will be signed between the Department and the grantee institute(s) on a Non-Judicial stamp paper of an appropriate value in the format given at Annexure II and the second release will be effected after execution of MOA between the grantee institution(s) and the DBT.
- 4.4 **The Institute(s) / Agency(ies) will keep the whole of the grant in the 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 instalment of the grant and / or at the time of Final Settlement of Accounts.
5. No international travel shall be undertaken from the sanctioned project grant unless specified otherwise.

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6. The *Director, APSSRDI, Hindupur, the Registrar, DBAMU, Aurangabad* and the *Registrar, SPMV, Tirupati* would be responsible for submission of Statement of Expenditure and consolidated Utilization Certificate to DBT and Pls in respect of grants released against this order from time to time.
7. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. 102/IFD/SAN/826/2018-2019 dated 25.06.2018.

Mohd. Aslam
(Dr. Mohd. Aslam)
Scientist 'G'

To,
The Pay & Accounts Officer,
Department of Biotechnology,
Ministry of Science & Technology,
CGO Complex, Lodhi Road,
New Delhi - 110003

Copy to:

1. The Director of Audit (Scientific Departments), AGCR Building, New Delhi-110002
2. Cash Section, DBT (2 copies)
3. IFD, DBT
4. Sanction Folder
5. Dr. P. J. Raju, Director, Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Kirikera - 515211, Hindupur, Andhra Pradesh
- ✓ 6. Prof. G. D. Khedkar, Paul Hebert Centre for DNA Barcoding and Biodiversity Studies, Dr. Babasaheb Ambedkar Marathwada University (DBAMU), Aurangabad - 431004
7. Prof. D. M. Mamatha, Department of Seri-biotechnology, Sri Padmavati Mahila Visvavidyalayam (SPMV), Padmavathi Nagar, Near West Railway Station, Chittoor, Tirupati - 517502, Andhra Pradesh
8. The Director, Andhra Pradesh State Sericulture Research and Development Institute (APSSRDI), Kirikera - 515211, Hindupur, Andhra Pradesh
9. The Registrar, Dr. Babasaheb Ambedkar Marathwada University (DBAMU), Aurangabad - 431004.
10. The Registrar, Sri Padmavati Mahila Visvavidyalayam (SPMV), Padmavathi Nagar, Near West Railway Station, Chittoor, Tirupati - 517502, Andhra Pradesh

Mohd. Aslam
(Dr. Mohd. Aslam)
Scientist 'G'