BT/PR12720/COE/34/21/2015

Government of India Ministry of Science & Technology Department of Biotechnology

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

> > Dated: 04.08.2017

ORDER

In continuation of this Department's sanction order of even number dated 03.10.2016, sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the release of a sum of ₹ 129.35 lakhs (Rupees One crore Twenty Nine lakhs Thirty Five thousand only) jointly at Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode (₹ 85.64 lakhs), Indian Institute of Science Education and Research (IISER), Thiruvananthapuram (₹ 10.93 lakhs), IISER, Pune (₹ 1.28 lakhs), University of Agricultural Sciences (UAS), Bangalore (₹ 4.58 lakhs), National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram (₹ 12.67 lakhs), Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram (₹ 7.98 lakhs) and Alagappa University, Karaikudi (₹ 6.27 lakhs) being the third release under Recurring heads for implementation of the following projects under "**Programme Support on Biotechnology Approaches for Conservation and Sustainable Utilization of Plant Wealth of Western Ghats**":

Component A: Plant-Animal Interactions / Plant-Animal Ecology

- <u>Project A1:</u> Community plant-pollinator interactions at the landscape level (JNTBGRI, Palode, IISER, Thiruvananthapuram and IISER, Pune)
- <u>Project A2:</u> Ecology and Conservation of Freshwater Swamp Ecosystems of the Western Ghats Kerala Region (JNTBGRI, Palode and IISER, Thiruvananthapuram)
- <u>Project A3:</u> Comparative biogeography of plants of the Western Ghats (JNTBGRI, Palode and IISER, Thiruvananthapuram)

<u>Component B:</u> Bioprospecting and Basic Biology

- <u>Project B1:</u> Identification of elite lines of *Centella asiatica* and *Bacopa monnieri* for commercially significant constituents for standardization of their extracts (JNTBGRI, Thiruvananthapuram and Natural Remedies, Bangalore)
- <u>Project B2</u>: Bio-prospecting of two coded anti-diabetic medicinal plants based on ethnomedical leads with special reference to diabetic complications A Molecular Pharmacological Approach (JNTBGRI, Palode and National Institute for Interdisciplinary Science & Technology (NIIST), Thiruvananthapuram)
- <u>Project B3:</u> Metabolic pathway analysis of L-dopa synthesis in *Mucuna pruriens* L. by characterization of catecholamine pathway with emphasis on modulation of tyrosine hydroxylase genes (JNTBGRI, Thiruvananthapuram and Indian Institute of Science, Bangalore)
- <u>Project B4:</u> Antivirals from medicinal plants of Western Ghats selected based on traditional knowledge (TK) / ethnomedical information (JNTBGRI, Palode, Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram)
- <u>Project B5:</u> Characterization, recombinant expression, process scale up and validation of selected hydrolases from native actino-bacteria for commercial exploitation (JNTBGRI, Palode, Alagappa University, Karaikudi and NIIST, Thiruvananthapuram)

2. The breakup of the budget is as follows:

								Amount (₹	in lakhs)
S.	Items	JNTBGRI	IISER,	IISER,	UAS,	NIIST,	RGCB,	Alagappa	Total
No.		*	TVM**	Pune	Bangalore	TVM***	TVM	Univ.	
Recurring:									
1.	Manpower	46.06	7.88	0.00	3.77	4.87	3.96	2.86	69.40
2.	Consumables	26.28	0.30	0.34 [‡]	0.07	4.90	2.99 ^{‡‡}	1.91 ^{\$}	36.79
3.	Travel	4.00	1.05	0.44	0.34	0.50	0.03	0.50	6.86
4.	Contingencies	5.30	1.20	0.00	0.00	1.50	1.00	0.50	9.50
5.	Overheads	4.00	0.50	0.50	0.40	0.90	0.00	0.50	6.80
Tota	Total (A+B): 85.64		10.93	1.28	4.58	12.67	7.98	6.27	129.35

 \ddagger After re-appropriating an amount of ₹0.19 lakhs available as 'Interest Earned'.

‡‡ After re-appropriating an amount of ₹0.01 lakhs available as 'Interest Earned'.

\$ After re-appropriating an amount of ₹0.09 lakhs available as 'Interest Earned'.

* Breakup of budget estimates of JNTBGRI, Palode

								Amount (₹i	11 10(115)
tems	Component A Component B				Total				
	Project A1	Project A2	Project A3	Project B1	Project B2	Project B3	Project B4	Project B5	
rring:									
Manpower	4.90	3.65	8.09	8.07	3.70	2.38	9.16	6.11	46.06
Consumables	1.15 [‡]	0.18 [‡]	3.24 [‡]	6.08 [‡]	6.31 [‡]	4.68 [‡]	2.45 [‡]	2.19 [‡]	26.28
Travel	0.42	1.00	0.37	1.00	0.24	0.29	0.18	0.50	4.00
Contingencies	0.50	0.50	0.00	0.80	1.00	0.50	1.50	0.50	5.30
Overheads	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	4.00
l (A+B):	7.47	5.83	12.20	16.45	11.75	8.35	13.79	9.80	85.64
	rring: Manpower Consumables Travel Contingencies Overheads	rring: Manpower 4.90 Consumables 1.15 [‡] Travel 0.42 Contingencies 0.50 Overheads 0.50	rring: Manpower 4.90 3.65 Consumables 1.15 [‡] 0.18 [‡] Travel 0.42 1.00 Contingencies 0.50 0.50 Overheads 0.50 0.50	rring: 3.65 8.09 Manpower 4.90 3.65 8.09 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] Travel 0.42 1.00 0.37 Contingencies 0.50 0.50 0.00 Dverheads 0.50 0.50 0.50	rring: 3.65 8.09 8.07 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] 6.08 [‡] Travel 0.42 1.00 0.37 1.00 Contingencies 0.50 0.50 0.50 0.50 Overheads 0.50 0.50 0.50 0.50	rring: Manpower 4.90 3.65 8.09 8.07 3.70 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] 6.08 [‡] 6.31 [‡] Travel 0.42 1.00 0.37 1.00 0.24 Contingencies 0.50 0.50 0.00 0.80 1.00 Overheads 0.50 0.50 0.50 0.50 0.50	rring: Manpower 4.90 3.65 8.09 8.07 3.70 2.38 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] 6.08 [‡] 6.31 [‡] 4.68 [‡] Iravel 0.42 1.00 0.37 1.00 0.24 0.29 Contingencies 0.50 0.50 0.50 0.50 0.50 Overheads 0.50 0.50 0.50 0.50 0.50	rring: Manpower 4.90 3.65 8.09 8.07 3.70 2.38 9.16 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] 6.08 [‡] 6.31 [‡] 4.68 [‡] 2.45 [‡] Travel 0.42 1.00 0.37 1.00 0.24 0.29 0.18 Contingencies 0.50 0.50 0.00 0.80 1.00 0.50 1.50 Overheads 0.50 0.50 0.50 0.50 0.50 0.50	Manpower 4.90 3.65 8.09 8.07 3.70 2.38 9.16 6.11 Consumables 1.15 [‡] 0.18 [‡] 3.24 [‡] 6.08 [‡] 6.31 [‡] 4.68 [‡] 2.45 [‡] 2.19 [‡] Travel 0.42 1.00 0.37 1.00 0.24 0.29 0.18 0.50 Contingencies 0.50 0.50 0.00 0.80 1.00 0.50 1.50 0.50 Overheads 0.50 0.50 0.50 0.50 0.50 0.50 0.50

After re-appropriating an amount of ₹4.94 lakhs (Project A1: ₹0.44 lakhs + Project A2: ₹0.37 lakhs + Project A3: ₹0.51 lakhs + Project B1: ₹0.52 lakhs + Project B2: ₹0.80 lakhs + Project B3: ₹0.73 lakhs + Project B4: ₹0.76 lakhs + Project B5: ₹0.81 lakhs) available as 'Interest Earned'.

** Breakup of budget estimates of IISER, Thiruvananthapuram

				Amou	unt (₹ in lakhs)
S. No.	Items	Project A1	Project A2	Project A3	Total
Recurri	ng:				
1.	Manpower	1.60 [‡]	1.28 [‡]	5.00 [‡]	7.88
2.	Consumables	0.00	0.00	0.30	0.30
3.	Travel	0.34	0.21	0.50	1.05
4.	Contingencies	0.20	0.50	0.50	1.20
5.	Overheads	0.20	0.30	0.00	0.50
Total (A+B):		2.34	2.29	6.30	10.93

After re-appropriating an amount of ₹1.97 lakhs (Project A1: ₹0.32 lakhs + Project A2: ₹1.19 lakhs {₹0.65 as 'Interest Earned' + ₹0.54 lakhs as balance under 'Equipment' head} + Project A3: ₹0.46 lakhs) available as 'Interest Earned'.

*** Breakup of budget estimates of NIIST, Thiruvanantha	puram
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			Amou	unt (₹ in lakhs)
S. No.	Items	Project B2	Project B5	Total
Recurri	ng:			
1.	Manpower	2.71	2.16	4.87
2.	Consumables	2.40	2.50	4.90
3.	Travel	0.00	0.50	0.50
4.	Contingencies	1.00	0.50	1.50
5.	Overheads	0.40	0.50	0.90
Total (A+B):		6.51	6.16	12.67

- 3. The other terms and conditions governing the financial sanction will remain unaltered.
- 4. The amount of ₹ 129.35 lakhs (Rupees One crore Twenty Nine lakhs Thirty Five thousand only) shall be directly credited by PAO to the bank accounts of the following:

a) An amount of ₹85.64 lakhs (Rupees Eighty Five lakhs Sixty Four thousand only) will be credited to the following bank account of *the Director, Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode, Thiruvananthapuram* through RTGS:

Name of the Bank:	State Bank of India, Palode, Varuvila Bldgs., College Road, Palode P.O.,
	Trivandrum – 695562
Account No.:	57061980177
IFSC Code:	SBIN0070523
MICR Code:	695002971

b) An amount of ₹ 10.93 lakhs (Rupees Ten lakhs Ninety Three thousand only) will be credited to the following bank account of *the Director, Indian Institute of Science Education and Research, Thiruvananthapuram* through RTGS.:

Name of the Bank:	Canara Bank, 819 Cantonment Trivandrum Branch, Trivandrum –
	695039
Account No.:	0819101094002
IFSC Code:	CNRB0000819
MICR Code:	695015003

c) An amount of ₹1.28 lakhs (Rupees One lakh Twenty Eight thousand only) will be credited to the following bank account of *the Director, Indian Institute of Science Education and Research, Pune* through RTGS:

Name of the Bank:	State Bank of India, NCL Campus Branch, Pashan, Pune – 411008
Account No.:	31125298801
IFSC Code:	SBIN0003552
MICR Code:	411002012

d) An amount of ₹4.58 lakhs (Rupees Four lakhs Fifty Eight thousand only) will be credited to the following bank account of *the Comptroller, University of Agricultural Sciences, Bangalore* through RTGS:

Name of the Bank:Canara Bank, GKVK, University of Agricultural Sciences, Bellary Road,
Bangalore – 560065Account No.:2737201005001IFSC Code:CNRB0002737MICR Code:560015126

e) An amount of ₹ 12.67 lakhs (Rupees Twelve lakhs Sixty Seven thousand only) will be credited to the following bank account of *the Director, CSIR-National Institute for Interdisciplinary Science & Technology (NIIST), Thiruvananthapuram* through RTGS:

Name of the Bank:	State Bank of India, Pappanamcode, Thiruvananthapuram – 695019
Account No.:	67047723825
IFSC Code:	SBIN0070030
MICR Code:	695002943

f) An amount of ₹7.98 lakhs (Rupees Seven lakhs Ninety Eight thousand only) will be credited to the following bank account of *the Director, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram* through RTGS:

Name of the Bank: Canara Bank, Poojappura Branch, Preetha Buildings, T.C 17/716(1), Poojappura, Thiruvananthapuram – 695012Account No.:2892101000163

IFSC Code:	CNRB0002892
MICR Code:	695015020

g) An amount of ₹6.27 lakhs (Rupees Six lakhs Twenty Seven thousand only) will be credited to the following bank account of *the Registrar, Alagappa University, Karaikudi* through RTGS:

 Name of the Bank:
 Canara Bank, No. 56 & 57, Sekkalai Road, Karaikudi – 623001

 Account No.:
 0903101020751

 IFSC Code:
 CNRB0000903

 MICR Code:
 630015002

- 5. The expenditure involved is debitable to 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, Human Resource Development, Research Resources and Facilities; 29.17: Assistance for Research and Development; 29.17.31: Grants-in-Aid General for the year 2017-2018.
- 6. The copies of the Utilization Certificates for the year 2016-2017 are enclosed. All the Utilization Certificates due for rendition have been received and accepted by the Head of Division / competent authority.
- 7. The Competent Authority has allowed a sum of ₹ 38.31 lakhs (JNTBGRI, TVM: ₹ 14.63 lakhs {Project A1: ₹ 1.03 lakhs + Project A2: ₹ 3.61 lakhs + Project A3: ₹ 3.71 lakhs + Project B1: ₹ 0.19 lakhs + Project B2: ₹ 2.22 lakhs + Project B3: ₹ 3.89 lakhs + Project B4: ₹ (-) 0.38 lakhs + Project B5: ₹ 0.36 lakhs} + IISER, TVM: ₹ 17.88 lakhs {Project A1: ₹ 3.89 lakhs + Project A2: ₹ 7.15 lakhs + Project A3: ₹ 6.84 lakhs} + IISER, Pune: ₹ 4.77 lakhs {Project A1} + UAS, Bangalore: ₹ 0.46 lakhs {Project A1} + NIIST, TVM: ₹ 0.40 lakhs {Project B2: ₹ 1.52 lakhs + Project B5: ₹ (-) 1.12 lakhs} + RGCB, TVM: ₹ (-) 0.37 lakhs {Project B4} + Alagappa University, Karaikudi: ₹ 0.54 lakhs {Project B5}) to be carried forward to the current financial year 2017-2018.
- 8. In case the whole or a part of the amount of the grant-in-aid is being refunded, an interest at the rate of ten per cent per annum thereon shall be recovered.
- 9. 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.
- 10. All the institutions will submit audited Utilization Certificates and Statements of Expenditure in respect of the above mentioned amount.
- 11. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. 102/IFD/SAN/1975/2017-2018 dated 31.07.2017.
- 12. This sanction order has been noted at Serial No. <u>36</u> in the Register of Grants.

Mohd. Aslan

(Mohd. Aslam) Scientist 'G'

То

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

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), AGCR Building, New Delhi 110002
- 2. Cash Section, DBT (2 copies)
- 3. IFD, DBT
- 4. Sanction Folder
- 5. Dr. A. G. Pandurangan, Director (i/c), Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode, Thiruvananthapuram 695562
- 6. Dr. AK Sreekala, Scientist C, Department of Conservation Biology, Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode, Thiruvananthapuram 695562
- 7. Dr. Hema Somanathan, Assistant Professor, Department of Biology, Indian Institute of Science Education and Research (IISER), CET Campus, Thiruvananthapuram 695016
- 8. Dr. Deepak Barua, Assistant Professor, Department of Biology, Indian Institute of Science Education and Research (IISER), Pashan Road, Pune 400008
- 9. Prof. V.V. Belavadi, Department of Entomology, University of Agricultural Sciences, GKVK, Bangalore – 560065
- Dr. Ullasa Kodandaramaiah, Assistant Professor, School of Biology, Indian Institute of Science Education and Research (IISER), Computer Science Building, CET Campus, Sreekaryam, Thiruvananthapuram – 695016
- 11. Dr. E. Sreekumar, Scientist E1, Molecular Virology Laboratory, Rajiv Gandhi Centre for Biotechnology, Jagathy, Trivandrum 695014
- 12. Prof. S. Karutha Pandian, Head, Department of Biotechnology, II Floor, Science Campus, Alagappa University, Karaikudi 630004
- 13. Dr. Rajeev K Sukumaran, Senior Scientist, Biotechnology Division, CSIR-National Institute for Interdisciplinary Science & Technology (NIIST), Pappanamcode, Thiruvananthapuram 695019
- 14. The Director, Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode, Thiruvananthapuram 695562
- 15. The Director, Indian Institute of Science Education and Research (IISER), CET Campus, Thiruvananthapuram 695016
- 16. The Director, Indian Institute of Science Education and Research (IISER), Pashan Road, Pune 400008
- 17. The Comptroller, University of Agricultural Sciences, GKVK, Bangalore 560065
- 18. The Director, CSIR-National Institute for Interdisciplinary Science & Technology (NIIST), Pappanamcode, Thiruvananthapuram 695019
- 19. The Director, Rajiv Gandhi Centre for Biotechnology, Jagathy, Trivandrum 695014
- 20. Registrar, Alagappa University, Karaikudi 630004

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