

No. BT/PR38663/FCB/125/33/2020
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 3, 5th Floor
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 17/02/2023

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 "**Biotechnological Interventions for Management of Protected Areas**" for a period of 3 Year 0 Month at a total cost of Rs. **76316980** (Rupees Seven Crores Sixty Three Lakhs Sixteen Thousand Nine Hundred and Eighty Only) on the terms and conditions detailed here under:-

- 2.1 Title: Biotechnological Interventions for Management of Protected Areas**
2.2 Details of the Investigators:

Project Coordinator

Prof. Saroj K Barik

Director, North Eastern Hill University Shillong, Meghalaya, 793022

Principal Investigators/Theme Coordinators:

- 1. Prof. Saroj K Barik**
Director, North Eastern Hill University Shillong, Meghalaya, 793022
- 2. Dr. Dibyendu Adhikari**
Principal Scientist, Environmental Technology
CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh, 226001
- 3. Dr. G R Rout**
Professor, Department of Agril. Biotechnology, College of Agriculture
Orissa University of Agriculture & Technology, Bhubaneswar
- 4. Dr. Krishna Upadhaya**
Assistant Professor, Basic Sciences and Social Sciences, North Eastern Hill University
Shillong, Meghalaya, 793022
- 5. Dr. Lalatendu Giri**
Assistant Professor, Electronics and Communication Engineering, National Institute of
Technology Goa
- 6. Dr. Mukunda Dev Behera**
Associate Professor Centre for Oceans, Rivers, Atmosphere and Land
Indian Institute Of Technology, Kharagpur
- 7. Dr. N K Dhal**
Chief Scientist, Environment Sustainability Department
Institute of Minerals And Materials Technology, Bhubaneswar
- 8. Dr. Panna Deb**
Assistant Professor, Centre for biodiversity & natural resource Conserv
Assam University, Silchar - 788
- 9. Dr. (Mrs.) Tapati Das**
Assam University, Silchar - 788 011, Assam
- 10. Dr. Satya Narayan Jena**

Balendra Singh

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Principal Scientist, Plant Molecular Genetics Lab. CSIR-National Botanical Research Institute, Rana Pratap Marg, Lucknow Uttar Pradesh

11. Dr. Soumit Kumar Behera

Principal Scientist, Plant Ecology & Climate Change Science Division, CSIR-National Botanical Research Institute, Lucknow

12. Prof. Zafar Ahmad Reshi, Professor, Department of Botany, University of Kashmir, Jammu & Kashmir, Srinagar

12 Field Director cum RCCF, Similpal Biosphere Reserve, Odisha

13 Field Director, Nokrek Biosphere Reserve, Meghalaya

Co-Investigators

1. Dr. SK Tewari, CSIR-NBRI, Lucknow
2. Dr. Sharad srivastava, CSIR-NBRI, Lucknow
3. Dr. B N Singh, CSIR-NBRI, Lucknow
4. Dr. KJ Singh, CSIR-NBRI, Lucknow
5. Dr. Bikarma Singh, CSIR-NBRI, Lucknow
6. Dr. Vijay V Wagh, CSIR-NBRI, Lucknow
7. Dr. Sandeep Behra, CSIR-NBRI, Lucknow
8. Dr. Sanjay Dwivedi, CSIR-NBRI, Lucknow
9. Dr. K. Purushottam, CSIR-NBRI, Lucknow
10. Prof. KC Samal, OUAT, Bhubneswar
11. Dr. Manish Kumar, CSIR-IMMT, Bhubaneswar
12. Dr. NC Rout, CSIR-IMMT, Bhubaneswar
13. Dr. Anil K Gupta, CSIR-IMMT, Bhubaneswar
14. Dr. Hiranjit Chaiudhary, NEHU, Shilong, CoPI

2.3 Objectives:

Overall Objectives:

Vertical I: Conservation of threatened plants using biotechnology

1. Plant diversity assessment
2. Inventory of new populations and threat classification
3. Molecular profiling of threatened species
4. Standardization of micro- and macro-propagation protocol and mass propagation
5. Genetic enrichment of impoverished populations
6. Reintroduction in natural habitat and post plantation monitoring
7. Establishment of field germplasm bank and herbarium

Vertical II: Biotechnology of plant invasion

8. Mapping and monitoring of area under invasion
9. Understanding ecological mechanism of invasion.
10. Understanding molecular mechanism of invasions
11. Utilization of selected invasive species through value addition for human and veterinary healthcare purpose

Vertical III; Ecosystem services and their Improvement using biotechnological tools

12. Vegetation dynamics and landscape analysis
- 13: Quantification of ecosystem services
- 14: Up-scaling ES to landscape level using imageries and appropriate spatial model
15. Economic valuation of ESs
16. Mapping ESs flow and identification of priority areas for conservation
17. Enhancement of ESs through biotechnological interventions.

Institute wise Objectives:

I. Assam University

Vertical II: Biotechnology of plant invasion

1. Understanding ecological mechanism of invasion
2. Mapping and monitoring of area under invasion

Vertical III: Ecosystem services and their Improvement using biotechnological tools:-

1. Quantification of ecosystem services
2. Enhancement of ESs through biotechnological interventions

II. CSIR-National Botanical Research Institute, Lucknow

Vertical I: Conservation of threatened plants using biotechnology:-

1. Plant diversity assessment
2. Inventory of new populations and threat classification
3. Molecular profiling of threatened species
4. Standardization of micro- and macro-propagation protocol and mass propagation
5. Genetic enrichment of impoverished populations
6. Reintroduction in natural habitat and post plantation monitoring
7. Establishment of field germplasm bank and herbarium

Vertical II: Biotechnology of plant invasion

8. Mapping and monitoring of area under invasion
9. Understanding the ecological mechanism of invasion
10. Understanding the molecular mechanism of invasions
11. Utilization of selected invasive species through value addition for human and veterinary healthcare purpose

Vertical III: Ecosystem services and their Improvement using biotechnological tools

12. Quantification of ecosystem services
13. Economic valuation of ESs
14. Enhancement of ESs through biotechnological interventions

III. INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR

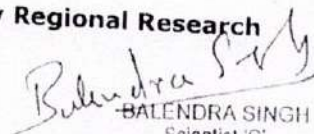
Vertical II: Biotechnology of plant invasion

1. Mapping and monitoring of area under invasion

Vertical III: Ecosystem services and their Improvement using biotechnological tools

1. Vegetation dynamics and landscape analysis
2. Quantification of ecosystem services
3. Up-scaling ES to landscape level using imageries and appropriate spatial model
4. Economic valuation of ESs
5. Mapping ESs flow and identification of priority areas for conservation
6. Enhancement of ESs through biotechnological interventions

IV. Institute of Minerals And Materials Technology (Formerly Regional Research Laboratory, Bhubaneswar)


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Vertical I: Conservation of threatened plants using biotechnology:-

1. Standardization of micro-and macro-propagation protocol and mass propagation

Vertical III: Ecosystem services and their Improvement using biotechnological tools

2. Quantification of ecosystem services

V. National Institute of Technology Goa

Vertical III: Ecosystem services and their Improvement using biotechnological tools

1. Quantification of ecosystem services
2. Enhancement of ESs through biotechnological interventions.

Vi. North Eastern Hill University

Vertical I: Conservation of threatened plants using biotechnology:-

1. Plant diversity assessment
2. Inventory of new populations and threat classification
3. Standardization of micro- and macro-propagation protocol and mass propagation
4. Reintroduction in natural habitat and post plantation monitoring
5. Establishment of field germplasm bank and herbarium

Vertical III: Ecosystem services and their Improvement using biotechnological tools

1. Quantification of ecosystem services
2. Enhancement of ESs through biotechnological interventions

Vii. Orissa University of Agriculture & Technology

Vertical 1: Conservation of threatened plants using biotechnology:-

1. Molecular profiling of threatened species
2. Standardization of micro- and macro-propagation protocol and mass propagation

Viii. University of Kashmir

Vertical II: Biotechnology of plant invasion

1. Mapping and monitoring of area under invasion
2. Understanding the ecological mechanism of invasion

2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **76316980/-** (Rupees Seven Crores Sixty Three Lakhs Sixteen Thousand Nine Hundred and Eighty Only) as per details given below

| Institute | Year I | Year II | Year III | Total Cost(Rs.) |
|---|-----------------|-----------------|-----------------|-----------------|
| 1. Assam University | 1811820 | 1128520 | 1232200 | 4172540 |
| 2. CSIR-National Botanical Research Institute | 22736800 | 6736800 | 6932240 | 36405840 |
| 3. Indian Institute Of Technology, Kharagpur | 11353520 | 1353520 | 1457200 | 14164240 |
| 4. Institute of Minerals And Materials Technology (Formerly RRL, Bhubaneswar) | 1321520 | 831520 | 787200 | 2940240 |
| 5. National Institute of Technology Goa | 1301760 | 701760 | 753600 | 2757120 |
| 6. North Eastern Hill University | 2707320 | 2231520 | 1987200 | 6926040 |
| 7. Orissa University of Agriculture & Technology | 1313040 | 1313040 | 1424400 | 4050480 |
| 8. University of Kashmir | 2263040 | 1263040 | 1374400 | 4900480 |
| Total (Rs.) | 44808820 | 15559720 | 15948440 | 76316980 |

Institute Wise details are:

| Budget Head | Year I | Year II | Year III | Total(Rs.) |
|---|--------------------|-------------------|-------------------|--------------------|
| 1. CSIR-National Botanical Research Institute, Lucknow | | | | |
| Equipment | 16000000.00 | | | 16000000.00 |
| Manpower | 4036800.00 | 4036800.00 | 4482240.00 | 12555840.00 |
| Consumables | 800000.00 | 800000.00 | 800000.00 | 2400000.00 |
| Contingency | 100000.00 | 100000.00 | 50000.00 | 250000.00 |
| Overhead | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Travel | 300000.00 | 300000.00 | 300000.00 | 900000.00 |
| Other (To be outsourced to participating Forest Dept.) | 1400000.00 | 1400000.00 | 1200000.00 | 4000000.00 |
| Total (Rs.) | 22736800.00 | 6736800.00 | 6932240.00 | 36405840.00 |
| 2. Indian Institute Of Technology, Kharagpur | | | | |
| Equipment | 9500000.00 | | | 9500000.00 |
| Computer Server | 500000.00 | | | 500000.00 |
| Manpower | 803520.00 | 803520.00 | 907200.00 | 2514240.00 |
| Overhead | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Travel | 300000.00 | 300000.00 | 300000.00 | 900000.00 |
| Consumables | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Contingency | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Total (Rs.) | 11353520.00 | 1353520.00 | 1457200.00 | 14164240.00 |
| 3. North Eastern Hill University, Shilong | | | | |
| Equipment | 475800.00 | | | 475800.00 |
| Manpower | 431520.00 | 431520.00 | 487200.00 | 1350240.00 |
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 200000.00 | 200000.00 | 100000.00 | 500000.00 |
| Consumables | 100000.00 | 100000.00 | 100000.00 | 300000.00 |

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 Department of Biotechnology
 Govt. of Assam
 G.G.O. ...

| | | | | |
|--|-------------------|-------------------|-------------------|-------------------|
| Contingency | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Other (To be outsourced to concerned Forest Dept.) | 1400000.00 | 1400000.00 | 1200000.00 | 4000000.00 |
| Total (Rs.) | 2707320.00 | 2231520.00 | 1987200.00 | 6926040.00 |

4. University of Kashmir, J&K

| | | | | |
|--------------------|-------------------|-------------------|-------------------|-------------------|
| Equipment | 1000000.00 | | | 1000000.00 |
| Manpower | 863040.00 | 863040.00 | 974400.00 | 2700480.00 |
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 200000.00 | 200000.00 | 200000.00 | 600000.00 |
| Consumables | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Contingency | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Total (Rs.) | 2263040.00 | 1263040.00 | 1374400.00 | 4900480.00 |

5. Assam University, Silchar

| | | | | |
|--------------------|-------------------|-------------------|-------------------|-------------------|
| Equipment | 483300.00 | | | 483300.00 |
| Manpower | 803520.00 | 803520.00 | 907200.00 | 2514240.00 |
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 200000.00 | 100000.00 | 100000.00 | 400000.00 |
| Consumables | 200000.00 | 100000.00 | 100000.00 | 400000.00 |
| Contingency | 75000.00 | 75000.00 | 75000.00 | 225000.00 |
| Total (Rs.) | 1811820.00 | 1128520.00 | 1232200.00 | 4172540.00 |

6. Orissa University of Agriculture & Technology, Bhubneswar

| | | | | |
|--------------------|-------------------|-------------------|-------------------|-------------------|
| Manpower | 863040.00 | 863040.00 | 974400.00 | 2700480.00 |
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Consumables | 200000.00 | 200000.00 | 200000.00 | 600000.00 |
| Contingency | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Total (Rs.) | 1313040.00 | 1313040.00 | 1424400.00 | 4050480.00 |

7. Institute of Minerals And Materials Technology (Formerly Regional Research Laboratory, Bhubaneswar)

| | | | | |
|--------------------|-------------------|------------------|------------------|-------------------|
| Equipment | 490000.00 | | | 490000.00 |
| Manpower | 431520.00 | 431520.00 | 487200.00 | 1350240.00 |
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Consumables | 200000.00 | 200000.00 | 100000.00 | 500000.00 |
| Contingency | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Total (Rs.) | 1321520.00 | 831520.00 | 787200.00 | 2940240.00 |

8. National Institute of Technology, Goa

| | | | | |
|-----------|-----------|-----------|-----------|-------------------|
| Equipment | 500000.00 | | | 500000.00 |
| Manpower | 401760.00 | 401760.00 | 453600.00 | 1257120.00 |

| | | | | |
|--------------------|-------------------|------------------|------------------|-------------------|
| Overhead | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Travel | 200000.00 | 100000.00 | 100000.00 | 400000.00 |
| Consumables | 100000.00 | 100000.00 | 100000.00 | 300000.00 |
| Contingency | 50000.00 | 50000.00 | 50000.00 | 150000.00 |
| Total (Rs.) | 1301760.00 | 701760.00 | 753600.00 | 2757120.00 |

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at **Annexure-I**

2.7 Manpower

The details of the manpower sanctioned for the implementation of the project at **Annexure-II**

2.8 Timelines and Milestones

The details of the **Timelines and Milestones** implementation of the project at **Annexure-III**

1.Head of Account

The **Non-Recurring** expenditure involved is debitable to:

| Demand No. 90 | Department of Biotechnology |
|----------------------|--|
| 3425 | Other Scientific Research 2022-2023 |
| 3425.60 | Others (Sub Major Head) |
| 3425.60.200 | Assistance to other Scientific Bodies |
| 3425.60.200.29 | Biotechnology Research and Development |
| 3425.60.200.29.17 | Assistance to Research and Development |
| 3425.60.200.29.17.35 | Grants for creation of capital assets |

The **Recurring** expenditure involved is debitable to:

| Demand No. 90 | Department of Biotechnology |
|----------------------|--|
| 3425 | Other Scientific Research 2022-2023 |
| 3425.60 | Others (Sub Major Head) |
| 3425.60.200 | Assistance to other Scientific Bodies |
| 3425.60.200.29 | Biotechnology Research and Development |
| 3425.60.200.29.17 | Assistance to Research and Development |
| 3425.60.200.29.17.31 | Grants -in-Aid General |

4.Terms & Conditions:

4.1 The other terms and conditions governing this sanction are attached at Annexure- III.

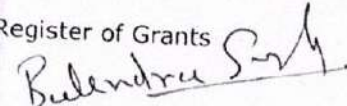
4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private

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 Department of Biotechnology
 Govt. of India
 C.S.O. Compound
 New Delhi

Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV

- 4.3 The Institute/Agency will keep the whole of the grant in a Bank Account as per the implementation of the revised procedure of flow of funds, and further as per Ministry of Finance's latest instructions in the matter thereof. The interest earned/Any other receipts due to project grants and activities should be remitted to the Consolidated fund of India through Bharat Koshportal (www.bharatkosh.gov.in) as per GFR-2017-230(8) after finalization of the account for a given Financial year
 5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise
 6. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-05/2019 dated 30 Jan 2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET
 7. As per Rule 236 (1) of GFR 2017, 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 (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called
 8. The equipment /instrument shall have to be purchased within eighteen (18) months from the date of release of the capital grant for a particular year. Fresh permission shall have to be sought from DBT in the event the organization fails to purchase the equipment/instrument within the prescribed period of eighteen (18) months from the date of release of sanctioned amount
 9. It is mandatory to acknowledge financial support provided by DBT in bold letters via inclusion of Grant reference number, Name of the Department (i.e. DBT) and the duration of the financial support including the dates in acknowledgement section of publications/patents/technology transfer documents/media communications/press announcements/exhibitions and other such events, vide notification no. DBT/PCAH/Gen/01 dated 07.06.2012 during and after the completion.
 10. It is obligatory to assess/observe the biosafety compliance for rDNA activities to be performed by grantee organization(s) and investigators for the proposals submitted to DBT for financial support as per the notification vide no. BT/BS/17/459/2011-PID dated 26.09.2012
 11. It is obligatory to assess/observe the biosafety compliance for rDNA activities to be performed by grantee organization(s) and investigators for the proposals submitted to DBT for financial support as per the notification vide no. BT/BS/17/459/2011-PID dated 26.09.2012
 12. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org
- i) "The PIs/Implementing Agencies shall strictly adhere to the GoI instructions issued vide OM No.F.4.1.2021-PPD dated 30.6.2021 in the matter of issue of Global tender Enquiry with special reference to instructions contained under Para 4 of the said OM for procurement of equipments, spares and consumables for research purposes and shall not issue Global Tenders Enquiries before seeking the approval of the competent authority".
 - (ii) "After incurring the expenditure on import of such items and at the time of submission of UCs to the department next year, the PIs will also furnish the copy of the approval sought from the competent authority for issue of the GTE for such items of import. The release of next installment of grant will be subject to the fulfillment of the above condition."

15. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project investigator(s) and Host Institution(s) shall compulsory comply the same before undertaking such activities
16. Continuation of the project beyond 31.3.2021 will be subject to appraisal and approval of the DBT umbrella scheme on "Biotechnology Research and Development" for continuation beyond 14th FCC As per Ministry of Finance OM.NO.C-13015(34)MF CGA/PFMS/Misc/2014-15/2095-2127 dated 03.03.2015 all transaction involving cash component has to be made through Public Financial Management System (PFMS) w.e.f 01.04.2015 to each beneficiaries.
17. The expenditure by the implementing agency is to be incurred only through the EAT module of PFMS
18. Release of funds under this project will be as per the latest procedure of release of funds under the given scheme.
19. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No **SAN No. 102/IFD/SAN/1672/2022-2023** dated **February, 15 2023**
20. This sanction order has been noted at serial no. **20** in the Register of Grants

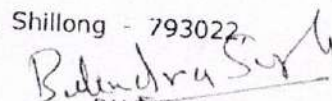

(Balendra Singh/बालेन्द्र सिंह)
Scientist 'C' / विज्ञानिक 'सी'
Department of Biotechnology
Govt. of India
C.G.O. Complex, Lodhi Road
New Delhi-110003

To,

The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi-110 002.
2. Prof. Saroj K. Barik(Project Co-ordinator), North Eastern Hill University, East Khasi Hills, Shillong - 793022, Meghalaya
3. The Comptroller, Orissa University of Agriculture & Technology, Bhubaneswar - 751003, Odisha
4. The Dean Research, University of Kashmir, Hazratbal, Jammu - 190006, Jammu And Kashmir
5. The Director, CSIR-National Botanical Research Institute, Rana Pratap Marg Lucknow - 226001, Uttar Pradesh
6. The Director, Indian Institute Of Technology, Kharagpur - 721302, West Bengal
7. The Director, Institute of Minerals And Materials Technology (Formerly Regional Research Laboratory, Bhubaneshwar), Council of Scientific and Industrial Research, Bhubaneswar - 751013, Odisha
8. The Director, National Institute of Technology Goa, NIT Goa, Farmagudi, GEC Campus, Ponda - 403401, Goa
9. The Registrar, Assam University, Silchar - 788011, Assam
10. The Registrar, North Eastern Hill University, East Khasi Hills, Shillong - 793022, Meghalaya


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11. Dr. Dibyendu Adhikari, Principal Scientist, Environmental Technology, CSIR-National Botanical Research Institute, Rana Prtap Marg, Lucknow - 226001, Uttar Pradesh
12. Dr. G R Rout, Professor, Department of Agril. Biotechnology, College of Agriculture, Odisha University of Agriculture & Technology, Bhubaneswar, Odisha, India, Khorda - 751003, Odisha
13. Dr. Krishna Upadhaya, Assistant Professor, Basic Sciences and Social Sciences, North Eastern Hill University, Shillong - 793022, Meghalaya
14. Dr. Lalatendu Giri, Assistant Professor, Eletronics and Communication Engineering, National Institute of Technology Goa, Farmagudi, Ponda, Margao - 403401, Goa
15. Dr. Mukunda Dev Behera, Associate Professor, Centre for Oceans, Rivers, Atmosphere and Land Sci, IIT Kharagpur, West Bengal, Kolkata - 721302, West Bengal
16. Dr. N K Dhal, Chief Scientist, Environmenmt Sustaintability Department, Institute of Minerals And Materials Technology (Formerly Regional Research Laboratory, Bhubaneshwar), CSIR- Institute of Minerals and Materials Technology Bhubaneswar
17. Dr. Panna Deb, Assistant Professor, Centre for biodiversity & natural resource Conserv, Assam University, Silchar - 788 01, Assam
18. Dr. (Mrs.) Tapati Das, Assam University , Silchar - 788 011, Assam
19. Dr. Satya Narayan Jena, Principal Scientist, Plant Molecular Genetics Lab., CSIR-National Botanical Research Institute, Rana Pratap Marg, Lucknow - 226001, Uttar Pradesh
20. Dr. Soumit Kumar Behera, Principal Scientist, Plant Ecology & Climate Change Science Division, CSIR-National Botanical Research Institute, Rana Pratap Marg, Lucknow - 226001, Uttar Pradesh
21. Prof. Saroj K Barik, , North Eastern Hill University, East Khasi Hills, Shillong - 793022, Meghalaya
22. Prof. Zafar Ahmad Reshi, Professor, Department of Botany, University of Kashmir, Srinagar, Jammu & Kashmir, Srinagar - 190006, Jammu And Kashmir (UT)
23. Field Director Cum RCCF, Simlipal Biosphere Reserve, Odisha
24. Field Director, Nokrek Biosphere Reserve, Meghalaya
25. Cash Section, DBT (2 copies).
26. Sanction Folder.
27. File Copy

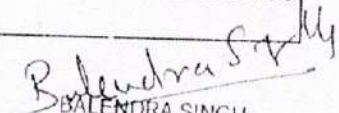
Balendra Singh

BALENDRA SINGH
(Balendra Singh/बालेन्द्र सिंह)
 Scientist C/वैज्ञानिक सी
 Department of Biotechnology
 Govt. of India
 C.G.O. Complex, Lodhi Road
 New Delhi-110003

Annexure I

Details of the Equipment sanctioned for the implementation of the project entitled
"Biotechnological Interventions for Management of Protected Areas":

| CSIR-National Botanical Research Institute | | | |
|---|--|------------|--------------------|
| SNo. | Name of Equipment | No. | Cost(Rs.) |
| 1. | Spectro-Radiometer | 1 | 6000000.00 |
| 2. | Trinocular Microscope | 1 | 3500000.00 |
| 3. | CHN Elemental Analyzer | 1 | 3000000.00 |
| 4. | Fabrication Flux tower | 1 | 500000.00 |
| 5. | UPLC | 1 | 3000000.00 |
| Total | | | 16000000.00 |
| INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR | | | |
| SNo. | Name of Equipment | No. | Cost(Rs.) |
| 1. | Terrestrial Laser Scanner (TLS) | 1 | 9500000.00 |
| 2. | Computer Server | 1 | 500000.00 |
| Total | | | 10000000.00 |
| North Eastern Hill University | | | |
| SNo. | Name of Equipment | No. | Cost(Rs.) |
| 1. | Deep Freezer, Horizontal Model | 1 | 35000.00 |
| 2. | Rocky Max Rockering Shaker | 1 | 53000.00 |
| 3. | Vertical Autoclave | 1 | 88000.00 |
| 4. | Manual Humidifier | 1 | 35000.00 |
| 5. | Digital Dry Bath without Heating Block | 1 | 14500.00 |
| 6. | Spare part for above, 0.5 ml 24 well tube | 1 | 8400.00 |
| 7. | Glass Bead Sterilizer | 1 | 33000.00 |
| 8. | Trinocular Microscope with Digital Camera | 1 | 89000.00 |
| 9. | Microwave oven | 1 | 29900.00 |
| 10. | Electrophoresis Unit with Tank & Accessories | 1 | 90000.00 |
| Total | | | 475800.00 |
| University of Kashmir | | | |
| SNo. | Name of Equipment | No. | Cost(Rs.) |
| 1. | Minor Equipment Apple M1Maxchip wi 9 th 10 core cpu, 32 core GPU and 16 core neural engine; 64 GB Unified Memory; 2TB SSD Storage, 16.2 inch liquid retina XDR Display, Backlit magic key board with touch ID etc. with accessories | 1 | 420000.00 |
| 2. | Sony a7 III Full Frame Mirroless Interchangeable Lens Camera with all accessories | 1 | 350000.00 |


BALENDRA SINGH
 Scientist 'C'
 Department of Biotechnology
 Govt. of Jammu & Kashmir
 C.G.O. Complex
 New Delhi

| | | | |
|----|--|--------------|-------------------|
| 3. | Soil Corer set, Ph Meter, Portable Weighing balance, abney levels, soil temperature meter, temperature data loggers, Zipper bags, field kit and implements, herbarium cabins, compressors, GPS | 1 | 230000.00 |
| | | Total | 1000000.00 |

Assam University

| SNo. | Name of Equipment | No. | Cost(Rs.) |
|------|--------------------------|--------------|------------------|
| 1. | Kjeldahl Apparatus | 1 | 295000.00 |
| 2. | Double ring infltrometer | 1 | 20000.00 |
| 3. | GPS | 1 | 37500.00 |
| 4. | Hot Air Oven | 1 | 82000.00 |
| 5. | Water Distillation Unit | 1 | 48800.00 |
| | | Total | 483300.00 |

Institute of Minerals And Materials Technology (Formerly Regional Research Laboratory, Bhubaneswar)

| SNo. | Name of Equipment | No. | Cost(Rs.) |
|------|-------------------|--------------|------------------|
| 1. | Mist Chamber | 1 | 380000.00 |
| 2. | PH Meter | 1 | 40000.00 |
| 3. | Weighing Balance | 1 | 25000.00 |
| 4. | Weighing Balance | 1 | 20000.00 |
| 5. | Digital Camera | 1 | 25000.00 |
| | | Total | 490000.00 |

National Institute of Technology Goa

| SNo. | Name of Equipment | No. | Cost(Rs.) |
|------|--|--------------|------------------|
| 1. | Sensors for environment parameters with signal conditioner of 4 -20 MA or MODBUS, high sensitivity (Temp. Humidity, Rainfall, wind,smoke, barometric pressure etc.) | 1 | 150000.00 |
| 2. | Wireless data acquisition system for sensors Onboard Tlcc 3200 controller Onboard Six 4-20 ma Analog input Onboard pulse counter with frequency of 10KHZ Onboard 7 logic relay function One RS485 Transreciver one Rs232 Transreciver on board memory card 8 optical isolated input with 3-32 volt signal workable on 12-30 vdc IP Box | 1 | 350000.00 |
| | | Total | 500000.00 |

Balendra Singh
 BALENDRA SINGH
 (Balendra Singh/बालेन्द्र सिंह)
 Scientist C / वैज्ञानिक 'सी'
 Department of Physics
 Govt. of India
 C.G.O. Complex, Lodhi Road
 New Delhi-110003

| | | | | | |
|---|---|---------------|---------------|---------------|----------------|
| Year | | | | | |
| Total(Rs.) | | 431520 | 431520 | 487200 | 1350240 |
| 7. Orissa University of Agriculture & Technology, Bhubaneswar | | | | | |
| Junior Research Fellow /Project Associate Rs31000+16%HRA; 1 st & 2 nd Year | 2 | 863040 | 863040 | 0 | 1726080 |
| Senior Research Fellow Rs35000+16%HRA; 3 rd Year | 2 | 0 | 0 | 974400 | 974400 |
| Total(Rs.) | | 863040 | 863040 | 974400 | 2700480 |
| 8. University of Kashmir | | | | | |
| Junior Research Fellow JRF/Project Associate 31000+16%HRA; 1 st & 2 nd Year | 2 | 863040 | 863040 | 0 | 1726080 |
| Senior Research Fellow/ Project Associate 35000+16%HRA; 3 rd Year | 2 | 0 | 0 | 974400 | 974400 |
| Total(Rs.) | | 863040 | 863040 | 974400 | 2700480 |

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No. SR/S9/Z-05/2019 dated 10.07.2020, 2020/SR/S9/Z-08/2018 January 30, 2019

Balendra Singh
 BALENDRA SINGH
 (Balendra Singh/बालेन्द्र सिंह)
 Department of Biological Sciences
 Scientist C/वैज्ञानिक 'सी'
 C.G.O. Complex, Lodhi Road
 New Delhi-110003

20-21

Admin (HBM)

BT/NER/95/SP47965/2022
Government of India
Ministry of Science & Technology
Department of Biotechnology

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

Dated: 20/03/2023

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules 1978, for implementation of the project entitled **“Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas”** under Himalayan Bioresource Mission for a period of **three years** at a total cost of **₹ 3,83,57,280/-** (Rupees Three crores Eighty-Three lakhs Fifty-Seven thousand Two hundred and Eighty Only) on the terms and conditions detailed here under:

2. The Project:

2.1 Title: Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas

2.2 Details of the Investigators

Principal Investigators:

1. Prof. Jyoti Prakash Tamang, Department of Microbiology, Sikkim University, Science Building, Tadong – 737102, Gangtok, Sikkim
2. Dr. K. Jeyaram, Scientist E, Microbial Resources Division, DBT-Institute of Bioresources and Sustainable Development (IBSD), Takyel pat, Imphal – 795001, Manipur
3. Prof. Naveen Kumar Navani, Department of Biotechnology, Indian Institute of Technology, Roorkee – 247667, Uttarakhand
4. Dr. Shantibhusan Senapati, Scientist-E, DBT-Institute of Life Sciences (ILS), NALCO Nagar, Bhubaneswar – 751023, Odisha
5. Dr. Sarita Devi, Scientist, Department of Biotechnology, CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur – 176061, Himachal Pradesh
6. Prof. Manzoor A. Shah, Department of Botany, University of Kashmir, Hazratbal, Srinagar – 190006, J&K
7. Dr. Tulika P Srivastava, Associate Professor, School of Basic Sciences, Indian Institute of Technology (IIT), Kamand, Mandi – 175005, Himachal Pradesh

Co-PIs:

1. Dr. Namrata Thapa, Associate Professor and Head, DBT-Biotech Hub, Food Microbiology Laboratory, Post Graduate Department of Zoology, Nar Bahadur Bhandari Degree College (formerly Sikkim Government College, affiliated to Sikkim University), Tadong – 737102, Sikkim
2. Dr. S. Indira Devi, Scientist D, DBT-IBSD, Imphal
3. Dr. Amit Kumar Raj, Scientist C, DBT-IBSD, Imphal
4. Dr. Sushil Kumar Chaudhary, Project Scientist-II, DBT-IBSD, Imphal
5. Prof. Ranjana Pathania, Department of Biotechnology, IIT, Roorkee

Vaishali

6. Dr. Subrata Kumar Das, Scientist F, Department of Microbial Ecology, Genomics and Translational Research, DBT-ILS, Bhubaneswar
7. Dr. Tushar Kant Beuria, Scientist E, Department of Infectious Disease Biology, DBT-ILS, Bhubaneswar
8. Dr. Mahesh Gupta, Principal Scientist, Department of Botany, CSIR-IHBT, Palampur
9. Dr. Vikram Patial, Senior Scientist, Department of Botany, CSIR-IHBT, Palampur
10. Dr. Vidyashankar Srivatsan, Scientist, Department of Botany, CSIR-IHBT, Palampur
11. Dr. Adil Gani, Assistant Professor, Department of Food Science and Technology, University of Kashmir, Hazratbal, Srinagar

2.3 Objectives:

1. To develop some functional fermented foods of Indian Himalayas (Eastern Himalayan regions of North East India and Western Himalayas) by previously tested starter culture(s) with several functionalities.
2. To evaluate the chemical profiling and bioassay-guided evaluation of health promoting effects of the selected fermented foods for value addition as functional foods.
3. To develop nutraceuticals products and probiotic multi-strain consortium using selected food-grade microorganisms with specific health benefits.
4. To evaluate sensory evaluation and consumers' acceptability trials of new functional fermented food products.
5. To promote bio-entrepreneurship and marketing of some developed functional fermented foods with specific health benefits in the Himalayan regions and other parts of the country through the Industrial Partners.

2.4 Time Schedule: The duration of the project is **three years** from the date of this sanction order. A copy of the quarterly milestones of the project is at **Annexure-I**.

2.5 Project Cost: The total cost of the project is **₹ 3,83,57,280/-** (Rupees Three crores Eighty-Three lakhs Fifty-Seven thousand Two hundred and Eighty Only) as per details given below:

I. Sikkim University, Gangtok, Sikkim

| S. No. | Item | Amount (₹ in lakhs) | | | |
|-----------------|-----------------------------|---------------------|-----------------|-----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| 2. | GIA-General (Manpower) | 8.03520 | 8.03520 | 9.07200 | 25.14240 |
| 3. | GIA-General (Recurring)* | 7.50000 | 7.50000 | 6.50000 | 21.50000 |
| 4. | GIA-General (Overhead) | 1.00000 | 1.00000 | 1.00000 | 3.00000 |
| Total I: | | 16.53520 | 16.53520 | 16.57200 | 49.64240 |

* Including Consumables, Travel, Contingencies and Product Development Workshop / Training / Outsourcing

II. DBT-IBSD, Imphal

| S. No. | Item | Amount (₹ in lakhs) | | | |
|------------------|-----------------------------|---------------------|-----------------|-----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 16.19000 | 0.00000 | 0.00000 | 16.19000 |
| 2. | GIA-General (Manpower) | 10.10880 | 10.10880 | 10.10880 | 30.32640 |
| 3. | GIA-General (Recurring)* | 6.50000 | 5.75000 | 3.75000 | 16.00000 |
| 4. | GIA-General (Overhead) | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Total II: | | 32.79880 | 15.85880 | 13.85880 | 62.51640 |

* Including Consumables, Travel and Contingencies

III. IIT, Roorkee

| S. No. | Item | Amount (₹ in lakhs) | | | |
|-------------------|-----------------------------|---------------------|-----------------|-----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 19.94000 | 0.00000 | 0.00000 | 19.94000 |
| 2. | GIA-General (Manpower) | 6.99840 | 6.99840 | 6.99840 | 20.99520 |
| 3. | GIA-General (Recurring)* | 7.50000 | 7.00000 | 5.50000 | 20.00000 |
| 4. | GIA-General (Overhead) | 1.00000 | 1.00000 | 1.00000 | 3.00000 |
| Total III: | | 35.43840 | 14.99840 | 13.49840 | 63.93520 |

* Including Consumables, Travel and Contingencies

IV. DBT-ILS, Bhubaneswar

| S. No. | Item | Amount (₹ in lakhs) | | | |
|------------------|-----------------------------|---------------------|-----------------|-----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| 2. | GIA-General (Manpower) | 17.40000 | 17.40000 | 17.95680 | 52.75680 |
| 3. | GIA-General (Recurring)* | 9.40000 | 5.40000 | 3.70000 | 18.50000 |
| 4. | GIA-General (Overhead) | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Total IV: | | 26.80000 | 22.80000 | 21.65680 | 71.25680 |

* Including Consumables and Travel

V. CSIR-IHBT, Palampur

| S. No. | Item | Amount (₹ in lakhs) | | | |
|-----------------|-----------------------------|---------------------|-----------------|-----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 16.97000 | 0.00000 | 0.00000 | 16.97000 |
| 2. | GIA-General (Manpower) | 12.05280 | 12.05280 | 12.05280 | 36.15840 |
| 3. | GIA-General (Recurring)* | 4.00000 | 4.00000 | 2.00000 | 10.00000 |
| 4. | GIA-General (Overhead) | 1.00000 | 1.00000 | 1.00000 | 3.00000 |
| Total V: | | 34.02280 | 17.05280 | 15.05280 | 66.12840 |

* Including Consumables, Travel and Contingencies

VI. University of Kashmir, Srinagar

| S. No. | Item | Amount (₹ in lakhs) | | | |
|------------------|-----------------------------|---------------------|----------------|----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 2.00000 | 0.00000 | 0.00000 | 2.00000 |
| 2. | GIA-General (Manpower) | 5.75520 | 5.75520 | 6.31200 | 17.82240 |
| 3. | GIA-General (Recurring)* | 2.00000 | 2.00000 | 1.50000 | 5.50000 |
| 4. | GIA-General (Overhead) | 1.00000 | 1.00000 | 1.00000 | 3.00000 |
| Total VI: | | 10.75520 | 8.75520 | 8.81200 | 28.32240 |

* Including Consumables, Travel and Contingencies

VII. IIT, Mandi

| S. No. | Item | Amount (₹ in lakhs) | | | |
|-------------------|-----------------------------|---------------------|-----------------|----------------|-----------------|
| | | Year I | Year II | Year III | Total |
| 1. | GIA-Capital (Non-Recurring) | 6.20000 | 0.00000 | 0.00000 | 6.20000 |
| 2. | GIA-General (Manpower) | 4.01760 | 4.01760 | 4.53600 | 12.57120 |
| 3. | GIA-General (Recurring)* | 9.00000 | 7.00000 | 4.00000 | 20.00000 |
| 4. | GIA-General (Overhead) | 1.00000 | 1.00000 | 1.00000 | 3.00000 |
| Total VII: | | 20.21760 | 12.01760 | 9.53600 | 41.77120 |

* Including Consumables, Travel and Contingencies

Vaishali

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'एफ' / Scientist 'F'

बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

SUMMARY OF BUDGET ESTIMATES

| S. No. | Institute | Amount in Rupees | | | Total |
|---------------------|---------------------------------|--------------------|--------------------|------------------|--------------------|
| | | Year I | Year II | Year III | |
| 1. | Sikkim University, Gangtok | 16,53,520 | 16,53,520 | 16,57,200 | 49,64,240 |
| 2. | DBT-IBSD, Imphal | 32,79,880 | 15,85,880 | 13,85,880 | 62,51,640 |
| 3. | IIT, Roorkee | 35,43,840 | 14,99,840 | 13,49,840 | 63,93,520 |
| 4. | DBT-ILS, Bhubaneswar | 26,80,000 | 22,80,000 | 21,65,680 | 71,25,680 |
| 5. | CSIR-IHBT, Palampur | 34,02,280 | 17,05,280 | 15,05,280 | 66,12,840 |
| 6. | University of Kashmir, Srinagar | 10,75,520 | 8,75,520 | 8,81,200 | 28,32,240 |
| 7. | IIT, Mandi | 20,21,760 | 12,01,760 | 9,53,600 | 41,77,120 |
| Grand Total: | | 1,76,56,800 | 1,08,01,800 | 98,98,680 | 3,83,57,280 |

2.6 Equipment: The details of the equipment sanctioned for implementation of the project are at Annexure-II.

2.7 Manpower: The details of manpower sanctioned for implementation of the project are at Annexure-III.

3. Head of Account:

The **Non-Recurring** expenditure involved is debitable to:

| | |
|----------------------|--|
| Demand No. 90 | Department of Biotechnology |
| 3425 | Other Scientific Research 2022-2023 |
| 3425.60 | Others (Sub Major Head) |
| 3425.60.200 | Assistance to other Scientific Bodies |
| 3425.60.200.29 | Biotechnology Research and Development |
| 3425.60.200.29.17 | Assistance to Research and Development |
| 3425.60.200.29.17.35 | Grants for creation of capital assets |

The **Recurring** expenditure involved is debitable to:

| | |
|----------------------|--|
| Demand No. 90 | Department of Biotechnology |
| 3425 | Other Scientific Research 2022-2023 |
| 3425.60 | Others (Sub Major Head) |
| 3425.60.200 | Assistance to other Scientific Bodies |
| 3425.60.200.29 | Biotechnology Research and Development |
| 3425.60.200.29.17 | Assistance to Research and Development |
| 3425.60.200.29.17.31 | Grants-in-Aid General |

4. Terms & Conditions:

4.1 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-IV

4.2 The expenditure by the implementing agency is to be incurred only through EAT module of PFMS.

4.3 Release of funds shall be subject to compliance with Revised Procedure for Flow of Funds under Central Sector Schemes as per Ministry of Finance OM's on the subject dated 09.03.2022, 24.03.2022 and 15.06.2022.

4.4 The PI/implementing agency shall acknowledge the financial support received from DBT, mentioning the project file number, in publications arising from research work done under this project.

4.5 Quarterly deliverables in the project, in quantifiable terms have to be provided for each quarter of the project, based on which, *inter-alia*, monitoring/review of the project will be done and proposal for release of subsequent instalment will be considered.

5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.

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 Utilisation Certificate and Statement of Expenditure. The interest earned should be remitted to the Consolidated fund of India through Bharat Kosh portal (www.bharatkosh.gov.in) as per GFR-2017-230(8) after finalization of the account for a given Financial Year.

7. The Registrar, Sikkim University, Gangtok, the Director, DBT-IBSD, Imphal, the Director, Indian Institute of Technology, Roorkee, the Director, DBT-Institute of Life Sciences (ILS), Bhubaneswar, the Director, CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur, the Registrar, University of Kashmir, Hazratbal, Srinagar, J&K and Director, Indian Institute of Technology, Mandi, HP would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.

8. PI's of DBT sponsored projects can consider appointment of sanctioned manpower positions as per DST OM No. A.SR/S9/Z-09/2019 dated 10.07.2020.

9. As per Rule 236 (1) of GFR 2017, 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 (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.

10. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org.

11. (I) The PIs/Implementing Agencies shall strictly adhere to the GoI instructions issued vide OM No.F.4.1.2021-PPD dated 30.6.2021 in the matter of issue of Global tender Enquiry with special reference to instructions contained under para 4 of the said OM for procurement of equipments, spares and consumables for research purposes and shall not issue Global Tenders Enquiries before seeking the approval of the competent authority.

(II) After incurring the expenditure on import of such items and at the time of submission of UCs to the department next year, the PIs will also furnish the copy of the approval sought from the competent authority for issue of the GTE for such items of import. The

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वैज्ञानिक 'एफ' / Scientist 'F'

बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology

विज्ञान और प्रौद्योगिकी विभाग / M/s Science & Tech

भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

release of next installment of grant will be subject to the fulfillment of the above condition.

12. The extant guidelines on Competitive Research Grant System (CRGS) para 2 (xi) will be followed, which reads that project extension will be considered only under exceptional circumstances by TEC/DBT/Apex Board for a maximum period of six months. Further, extension requests will not be considered if received after completion of the project.

13. If any biological data as specified in the guidelines are being generated in the project, then PI should submit the data generated in the project to Indian Biological Data Centre – The National Repository being implemented at Regional Centre for Biotechnology, Faridabad in compliance with the Biotech-PRIDE Guidelines 2021.

14. This issues under the powers delegated to this Department as per IFD Order No. G-17012/1/2020-IFD-DBT dated 15.02.2022 and with the concurrence of IFD, DBT, vide their SAN No. 102/IFD/SAN/2180/2022-23 dated 28/03/2023.

15. This sanction order has been noted at serial no. 20-21 in the Register of Grants.

Vaishali
(Dr. Vaishali Panjabi)
Scientist 'F'

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi – 110003

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi – 110002
2. The Registrar, Sikkim University, 6th Mile, Samdur, PO Tadong, Gangtok – 737102, Sikkim
3. The Director, DBT-Institute of Bioresources and Sustainable Development (IBSD), Takyel pat, Imphal – 795001, Manipur
4. The Director, Indian Institute of Technology, Roorkee – 247667, Dist. Haridwar, Uttarakhand
5. The Director, DBT-Institute of Life Sciences (ILS), NALCO Nagar, Bhubaneswar – 751023, Odisha
6. The Director, CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur – 176061, Himachal Pradesh
7. The Registrar, University of Kashmir, Hazratbal, Srinagar – 190006, J&K
8. The Director, Indian Institute of Technology, 2nd Floor, A-7 Building, South Campus, Kamand, Mandi – 175075, Himachal Pradesh
9. Prof. Jyoti Prakash Tamang, Department of Microbiology, Sikkim University, Science Building, Tadong – 737102, Gangtok, Sikkim
10. Dr. K. Jeyaram, Scientist E, Microbial Resources Division, DBT-Institute of Bioresources and Sustainable Development (IBSD), Takyel pat, Imphal – 795001, Manipur

11. Prof. Naveen Kumar Navani, Department of Biotechnology, Indian Institute of Technology, Roorkee – 247667, Uttarakhand
12. Dr. Shantibhusan Senapati, Scientist-E, DBT-Institute of Life Sciences (ILS), NALCO Nagar, Bhubaneswar – 751023, Odisha
13. Dr. Sarita Devi, Scientist, Department of Biotechnology, CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur – 176061, Himachal Pradesh
14. Prof. Manzoor A. Shah, Department of Botany, University of Kashmir, Hazratbal, Srinagar – 190006, J&K
15. Dr. Tulika P Srivastava, Associate Professor, School of Basic Sciences, Indian Institute of Technology (IIT), Kamand, Mandi – 175005, Himachal Pradesh
16. Cash Section, DBT (2 copies)
17. CNA, NII, New Delhi
18. Sanction Folder
19. File Copy

Vaishali

(Dr. Vaishali Panjabi)

Scientist 'F'

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/e Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Quarterly Milestones of the project entitled "Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas" under Himalayan Bioresource Mission:

| S. No. | Name of the Activity to be accomplished | Institutes | Year I | | | | Year II | | | | Year III | | | | | | |
|--------|---|--|----------|----|-----|----|----------|----|-----|----|----------|----|-----|----|---|---|--|
| | | | Quarters | | | | Quarters | | | | Quarters | | | | | | |
| | | | I | II | III | IV | I | II | III | IV | I | II | III | IV | | | |
| 1. | Recruitment of project staff, Procurement of equipment and consumables | SU, IBSD, IHBT, ILS, IIT-R, IIT-M, KU | X | X | | | | | | | | | | | | | |
| 2. | Previously identified starter culture(s) and process for controlled production of selected Himalayan fermented foods: | | | | X | X | X | X | | | | | | | | | |
| 2.1 | Functional gluten-free fermented millet bread | IIT-R, KU, IIT-M | | | X | X | X | X | | | | | | | | | |
| 2.2 | Mild-alcoholic sweet beverage from finger millet and black rice | SU, IBSD | | | X | X | X | X | | | | | | | | | |
| 2.3 | Fermented milk products (Khalari/chhurpi) | IIT-R, KU, IBSD | | | X | X | X | X | | | | | | | | | |
| 2.4 | Fermented sausages/meat product-one product (either Arjia/Chartayshya/Jamma/Keem/Kargyong) | IIT-R, KU, IIT-M | | | X | X | X | X | | | | | | | | | |
| 2.5 | Fermented soybean foods (Hawaijar/Kinema) | IBSD, SU | | | X | X | X | X | | | | | | | | | |
| 2.6 | Fermented black gram products- (Wadi/Siddu) | IIT-R, IHBT | | | X | X | X | X | | | | | | | | | |
| 2.7 | Fermented bamboo shoot (Soibum) | IBSD, SU | | | X | X | X | X | | | | | | | | | |
| 3. | Value addition of above mentioned selected fermented food products: | | | | | | | X | X | X | X | X | | | | | |
| 3.1. | Nutritional values and chemo-profiling | ILS, IBSD, IIT-R | | | | | | X | X | X | X | X | | | | | |
| 3.2. | Probiotics properties | IBSD, IIT-R, KU, IHBT | | | | | | X | X | X | X | X | | | | | |
| 3.3. | Metabolomics for untargeted metabolites and bioactive compounds, flavor and aroma | SU, ILS, IIT-M | | | | | | X | X | X | X | X | | | | | |
| 3.4 | Nutraceuticals and health promoting benefits. | ILS, IBSD, IHBT | | | | | | X | X | X | X | X | | | | | |
| 3.6 | Metagenomics and omics approaches | SU, IIT-M | | | | | | X | X | X | X | X | | | | | |
| 4. | Evaluation of safety of the developed functional fermented foods | IHBT, ILS, IBSD | | | | | | X | X | X | X | X | X | | | | |
| 5. | Organoleptic and consumers acceptability tests of developed functional fermented foods | SU, IBSD, IIT-R, IHBT | | | | | | X | X | X | X | X | | | | | |
| 6. | Promotion of bio-entrepreneurship for the production of developed functional fermented foods. | SU, IBSD, ILS, IHBT, IIT-R, IIT-M, KU & Industrial partner | | | | | | | | X | X | X | X | X | X | X | |
| 6.1 | Outreach and capacity building | IIT-M, SU, IHBT, IIT-R, KU, IBSD | | | | | | | | X | X | X | X | X | X | X | |
| 6.2 | *Geographical Indication (GI) tags of target products. | Sikkim (SU), Manipur (IBSD), Uttarakhand (IIT-R), HP (IHBT and IIT-M), Kashmir & Ladakh (KU) | | | | | | | | X | X | X | X | X | X | X | |
| 6.3 | Process for FSSAI approval of the target products | All Institutes | | | | | | | | X | X | X | X | X | X | X | |

Vaisali

| | | | | | | | | | | | | | | | |
|-----|--------------------------------------|--|--|--|--|--|--|--|--|---|---|---|---|---|---|
| 6.4 | Marketing through Industrial partner | Industry Partner (Mother Dairy) and all Institutes | | | | | | | | X | X | X | X | X | X |
|-----|--------------------------------------|--|--|--|--|--|--|--|--|---|---|---|---|---|---|

SU: Sikkim University, Gangtok; IBSD: Institute of Bioresources and Sustainable Development, Sikkim Centre, Gangtok; IHBT: Institute of Himalayan Bioresources Technology, Palampur; ILS: Institute of Life Sciences, Bhubaneswar; IIT-R: Indian Institute of Technology, Roorkee, IIT-M: Indian Institute of Technology, Mandi; KU: University of Kashmir, Srinagar.

*For geographical Indication (GI) tags of target products, it has been to be processed through State Governments where the original fermented foods belong.

Vaishali

(Dr. Vaishali Panjabi)

Scientist 'F'

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI

वैज्ञानिक 'एफ' / Scientist 'F'

बायोटेक्नोलॉजी विभाग / Dept. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/e Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Annexure-II

Details of Equipment sanctioned for implementation of the project entitled "Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas" under Himalayan Bioresource Mission:

| S. No. | Name of Equipment | No. of Items | Estimated Cost (₹ in lakhs) |
|--|---|--------------|--|
| I. DBT-IBSD, Imphal | | | |
| 1. | Anaerobic Chamber | One | US\$ 19,555 = ₹ 16.19 lakhs (US\$ 1 = ₹ 82.8066 as on 29.12.2022) |
| Total I: | | | 16.19 |
| II. IIT, Roorkee | | | |
| 1. | Multi-mode Plate reader with accessories | One | ₹ 19.94 lakhs |
| Total II: | | | 19.94 |
| III. CSIR-IHBT, Palampur | | | |
| 1. | Incubator Shaker (Aerobic) | One | ₹ 6.98 lakhs |
| 2. | Incubator Shaker (Anaerobic for BSH enzyme) | One | ₹ 9.99 lakhs |
| Total III: | | | 16.97 |
| IV. University of Kashmir, Srinagar | | | |
| 1. | Field Camera, GPS and Hard Disk | | ₹ 2.00 lakhs |
| Total IV: | | | 2.00 |
| V. IIT, Mandi | | | |
| 1. | Microvolume spectrophotometer (Nanodrop) | One | ₹ 6.20 lakhs |
| Total IV: | | | 6.20 |
| Grand Total: | | | 61.30 |

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डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
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बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / Min. Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Annexure-III

Details of Manpower sanctioned for implementation of the project entitled "Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas" under *Himalayan Bioresource Mission*:

| S. No. | Designation | No. of Positions | Emoluments (in Rupees) | | | Total |
|--|--|------------------|------------------------|------------------|------------------|------------------|
| | | | Year I | Year II | Year III | |
| I. Sikkim University, Gangtok, Sikkim | | | | | | |
| 1. | Junior Research Fellow (₹ 31,000/- fixed per month + 8% HRA for year I and II, ₹ 35,000/- fixed per month + 8% HRA for year III) | Two | 8,03,520 | 8,03,520 | 9,07,200 | 25,14,240 |
| Total I: | | | 8,03,520 | 8,03,520 | 9,07,200 | 25,14,240 |
| II. DBT-IBSD, Imphal | | | | | | |
| 1. | Research Associate-I (₹ 47,000/- fixed per month + 8% HRA) | One | 6,09,120 | 6,09,120 | 6,09,120 | 18,27,360 |
| 2. | Project Associate-I (₹ 31,000/- fixed per month + 8% HRA) | One | 4,01,760 | 4,01,760 | 4,01,760 | 12,05,280 |
| Total II: | | | 10,10,880 | 10,10,880 | 10,10,880 | 30,32,640 |
| III. IIT, Roorkee | | | | | | |
| 1. | Research Associate-III (₹ 54,000/- fixed per month + 8% HRA) | One | 6,99,840 | 6,99,840 | 6,99,840 | 20,99,520 |
| Total III: | | | 6,99,840 | 6,99,840 | 6,99,840 | 20,99,520 |
| IV. DBT-ILS, Bhubaneswar | | | | | | |
| 1. | Research Associate-I (₹ 47,000/- fixed per month + 16% HRA) | Two | 13,08,480 | 13,08,480 | 13,08,480 | 39,25,440 |
| 2. | Junior Research Fellow (₹ 31,000/- fixed per month + 16% HRA for year I and II, ₹ 35,000/- fixed per month + 16% HRA for year III) | One | 4,31,520 | 4,31,520 | 4,87,200 | 13,50,240 |
| Total IV: | | | 17,40,000 | 17,40,000 | 17,95,680 | 52,75,680 |
| V. CSIR-IHBT, Palampur | | | | | | |
| 1. | Project Associate-I (₹ 31,000/- fixed per month + 8% HRA) | Three | 12,05,280 | 12,05,280 | 12,05,280 | 36,15,840 |
| Total V: | | | 12,05,280 | 12,05,280 | 12,05,280 | 36,15,840 |
| VI. University of Kashmir, Srinagar | | | | | | |
| 1. | Junior Research Fellow (₹ 31,000/- fixed per month + 16% HRA for year I and II, ₹ 35,000/- fixed per month + 16% HRA for year III) | One | 4,31,520 | 4,31,520 | 4,87,200 | 13,50,240 |
| 2. | Project Assistant (₹ 12,000/- fixed per month) | One | 1,44,000 | 1,44,000 | 1,44,000 | 4,32,000 |
| Total VI: | | | 5,75,520 | 5,75,520 | 6,31,200 | 17,82,240 |

| VII. IIT, Mandi | | | | |
|--|-----|-----------------|-----------------|---------------------------|
| Junior Research Fellow (₹ 31,000/- fixed per month + 8% HRA for year I and II, ₹ 35,000/- fixed per month + 8% HRA for year III) | One | 4,01,760 | 4,01,760 | 4,53,600 12,57,120 |
| Total VII: | | 4,01,760 | 4,01,760 | 4,53,600 12,57,120 |

Emolument details of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as DST OM No. A.SR/S9/Z-09/2019 dated: 10.07.2020.

Vaishali

(Dr. Vaishali Panjabi)
Scientist 'F'

डॉ. वैशाली पंजाबी / Dr. VAISHALI PANJABI
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/e Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N Delhi

Dated: 04 September, 2023

ORDER

Subject: Financial Sanction of the research project titled **Drivers of treeline shifts within Kashmir Himalaya** under the guidance of Dr. Sumira Tyub, CORD, Kashmir University, Hazratbal rd, hazaratbal, srinagar, jk, Srinagar, Jammu and kashmir-190006 and by Dr. Irfan Rashid, Assistant Professor, Botany, Kashmir University - Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of Rs. 3366264/- (Rs. Thirty Three Lakh Sixty Six Thousand Two Hundred and Sixty Four Only) with break-up of Rs. 300000/- under Capital (Non-recurring) head and Rs. 3066264/- under General (Recurring) head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. 3366264/- has been approved are given below:

The following budget may be considered for Kashmir University, Hazratbal Rd, Hazaratbal, Srinagar, JK

| S. No | Head | Total (in Rs.) |
|----------|--|----------------|
| A | Non-recurring | |
| | Equipment | 300000 |
| | - Data Loggers for Soil Temperature | |
| A | Total (Non-Recurring) | 300000 |
| B | Recurring Items | |
| 1 | Recurring - I : (Research Personnel) | 1350240 |
| | Recurring - II : (Consumables, Travel, Contingencies, Scientific Social Responsibility) | 1400000 |
| | Recurring - III : Scientific Social Responsibility | 10000 |
| 2 | Recurring - IV : (Overhead Charges) | 306024 |
| B | Total (Recurring) | 3066264 |
| C | Total cost of the project (A' + B') | 3366264 |

2. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).
3. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.
4. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 15 lakh each should be spent for travel and contingency.
5. Budget sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enlisted under SSR norms and under no circumstances it can be reappropriated.
6. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.
7. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.
8. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.
9. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.
10. The research personnel sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any, beyond the duration of the project.
11. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring 'FUND FOR SCIENCE AND ENGINEERING RESEARCH' payable at New Delhi.

12. The project File no. CRG/2022/003618 should be mentioned in all communications arising from the above project. The organization/institute/university should ensure that the technical support/financial assistance provided to them by SERB should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

13. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by SERB.

14. Sanction order for release of funds under a) Non-recurring and b) Recurring will be issued separately depending on the availability of funds. The project become operational from the day the first release of grant received by the implementing Institute.

12/10/21

(Dr. Shilpi Paul)
Scientist F
ms_ps@serbonline.in

To,
Under Secretary
SERB, New Delhi

Copy forwarded for information and necessary action to :-

| | |
|----|---|
| 1. | The Principal Director of Audit, A.G.C.R Building, 11/1rd Floor I.P. Estate, Delhi-110002 |
| 2. | Sanction Folder, SERB, New Delhi. |
| 3. | File Copy |
| 4. | <p>Dr. Sumira Tyub CORD Kashmir University, Hazratbal rd, hazaratbal, srinagar, jk, Srinagar, Jammu and kashmir - 190006 Email: tyubsumira@gmail.com Mobile: 919419563957</p> <p>Dr. Irfan Rashid Botany Kashmir University (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.gov.in.)</p> |
| 5. | <p>Dean Research, Kashmir University, Hazratbal Rd, Hazaratbal, Srinagar, JK</p> <p>(Receipt of Grant may be intimated by name to the undersigned)</p> |

12/10/21

(Dr. Shilpi Paul)
Scientist F
ms_ps@serbonline.in

SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

(A statutory body of the Department of Science & Technology, Government of India)

Science and Engineering Research Board
3rd & 4th Floor, Block II
Technology Bhavan, New Mehrauli Road
New Delhi - 110016

Dated: 21 June, 2023

ORDER

Subject: Financial Sanction of the research project titled **In vitro propagation as a measure for sustainable conservation of elite chemotype of the threatened medicinal herb Rheum moorcroftianum Royle from North-Western Himalaya** under the guidance of Prof. Zahoor Ahmad Kaloo, Botany, Kashmir University, Hazratbal rd, hazaratbal, srinagar, jk, Srinagar, Jammu and kashmir-190006 and by Dr. Shahzad A Pandith, Faculty, Botany, Kashmir University - Release of 1st grant.

Sanction of **Science and Engineering Research Board (SERB)** is hereby accorded to the above mentioned project at a total cost of Rs. **3586264/-** (Rs. Thirty Five Lakh Eighty Six Thousand Two Hundred and Sixty Four Only) with break-up of Rs. **1000000/-** under **Capital (Non-recurring)** head and Rs. **2586264/-** under **General (Recurring)** head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. **3586264/-** has been approved are given below:

The following budget may be considered for **Kashmir University, Hazratbal Rd, Hazaratbal, Srinagar, JK**

| S. No | Head | Total (in Rs.) |
|-----------|--|----------------------------|
| A | Non-recurring | |
| 1 | Equipment -> Mini centrifuge -> PCR machine with electrophoresis apparatus -> Plant Climate Test Chamber -> Vertical Laminar Flow Cabinet- Double Sided Type | 1000000 |
| A' | Total (Non-Recurring) | 1000000 |
| B | Recurring Items | |
| 1 | Recurring - I : (Research Personnel) Recurring - II : (Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility | 1350240 850000 60000 |
| 2 | Recurring - IV : (Overhead Charges) | 326024 |
| B' | Total (Recurring) | 2586264 |
| C | Total cost of the project (A' + B') | 3586264 |

2. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).

3. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

4. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.

5. Budget sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enlisted under SSR norms and under no circumstances it can be reappropriated.

6. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

7. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

8. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

फाइल संख्या / File No. : SB/SRS/2022-23/101/LS
विज्ञान एवं इंजीनियरी अनुसंधान बोर्ड (एस. ई. आर. बी.)
Science and Engineering Research Board (SERB)
(A Statutory Body constituted by an Act of Parliament, Govt. of India)

3rd & 4th Floor,
Block-II, TECHNOLOGY BHAVAN,
New Mehrauli Road,
New Delhi-110016

Dated: 11-10-2023.

ORDER

Subject: - Financial assistance under the SERB Research Scientists (SRS) Scheme to Dr. Shahzad Ahmad Pandith, Department of Botany, University of Kashmir, Hazratbal, Srinagar J&K-190006 for undertaking a research project titled "Calcium oxalate crystals in Rheum moorcroftianum Royle: Deciphering their synthesis and role in defense against herbivory and heavy metal stress "-Release of initial & 1st instalment of grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above-mentioned project at a total cost Rs.46,00,000/- (Rs. Forty Six Lakhs Only) for a period of two years. The items of expenditure for which the total allocation of Rs.46,00,000/- has been approved for a period of two years are given below:

| Sl.No. | Budget Head | Amount (for 2 years) |
|--------|-------------------|--|
| 1. | Fellowship | Rs. 30,00,000/- (@1,25,000/- per month (consolidated)) |
| 2. | Research Grant | Rs.14,00,000/- (Rs. 7,00,000/- per annum) |
| 3. | Overheads | Rs.2,00,000/- (Rs. 1,00,000/- per annum) |
| | Total for 2 years | Rs.46,00,000/- |

2. The sanction of the SERB is also hereby accorded to the payment of Rs.13,00,000/- (Rupees Thirteen lakh only) to University of Kashmir, Srinagar being the first instalment of the grant for the year 2023-24 for implementation of the above said fellowship/project.

3. The expenditure involved is debit able to Fund for Science & Engineering Research (FSER). This release is being made under SERB Research Scientist Scheme (Grant-in-aid-General).

4. The Sanction has been issued under the powers delegated to the Science and Engineering Research Board and with the concurrence of the competent authority under delegated powers vide Diary No. SERB/F/7019/2023-24 dated 25-09-2023.

5. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc.

6. SRS is a purely temporary assignment. There is no provision for providing manpower support under this scheme. The Research Scientist is expected to undertake the research objectives by himself/herself during the entire duration of the SRS Project. Sanction of the grant is subject to the terms and conditions as detailed in the website (www.serb.gov.in). Date of the start of the Fellowship/Project will be as per the joining date at the Institution.

7. As per rule 211 of GFR the accounts of Grantee Institution shall be open to inspection by the sanctioning authority / audit whenever the institute is called upon to do so.

8. The release amount of Rs. 13,00,000/- (Rupees Thirteen lakh only) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| | |
|------------------------------------|---|
| PFMS Unique code | Unikashmir |
| Account Name | Dean Research, University of Kashmir |
| Account Number | 0007040500000057 |
| Bank Name & Branch | Jammu and Kashmir Bank Ltd., University Campus, Hazratbal, Srinagar |
| IFSC/RTGS Code | JAKA0NASEEM |
| Email Address of PI | shahzdiiim@gmail.com, drshahzad@uok.edu.in |
| Email Address of Institute | deanresearch@uok.edu.in |
| Email Address of Concerned Officer | dey.sukumar@serb.gov.in, jacob@nic.in |

Contd.../-