

No. BT/PR23412/BPA/118/284/2017

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 24/09/2018

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 "**Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**" for a period of **3 Year 0 Month** at a total cost of **Rs. 4273200 (Rupees Fourty Two Lakhs Seventy Three Thousand Two Hundred Only)** on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : **Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**

2.2 Details of the Investigators:

Dr. Raj Kumar Joshi

Associate Professor

Biotechnology

Rama Devi Women's University

Bhoinagar P.O., Khorda, Orissa 751022

CO-PI:

Prof. Sanghamitra Nayak

Professor and Head

Centre of Biotechnology

Siksha O Anusandhan University

AT-Kalinga Nagar, Po-Ghatikia, Bhubaneswar - 751003, Orissa

2.3 Objectives:

1. Identification and characterization of small RNAs from the basal rot fungus- *Fusarium oxysporum f. sp. cepae* and its host *Allium cepa* through a genome wide dual small RNA-seq analysis
2. Selection of putative defense responsive host miRNAs and immune suppressive pathogenic sRNAs and their target validation
3. Functional validation of host miRNAs and virulence nature of fungal sRNAs by attempted inhibition of functions through overexpression/silencing approaches

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. **4273200/-** (Rupees Fourty Two Lakhs Seventy Three Thousand Two Hundred Only) as per details given below:

Budget Head	Year I	Year II	Year III	Total(Rs.)
Equipment	1250000.00			1250000.00
Manpower	360000.00	360000.00	403200.00	1123200.00
Consumables	600000.00	500000.00	500000.00	1600000.00
Contingency	50000.00	50000.00	50000.00	150000.00
Travel	50000.00	50000.00	50000.00	150000.00
Total (Rs.)	2310000.00	960000.00	1003200.00	4273200.00

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

3. Head of Account:

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

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

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

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for 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 by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory 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 earning interest, and the interest so earned should be reported to DBT in the Utilisation Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
6. The Registrar, Rama Devi Women's University, Bhubaneswar, Orissa 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.
7. 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-09/2012 dated 21 Oct 2014. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.
8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations 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 Organisation is called upon to do so.
9. If the Research Project involves biological resource, 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
10. This issues under the power delegated to this Department and with the concurrence of IFD vide their **SAN No. 102/IFD/SAN/2463/2018-2019** dated **21/09/2018**.
11. This sanction order has been noted at serial no. **162** in the Register of Grants.



Dr. Sanjay Kalia
(Scientist 'E')

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 The Registrar, Rama Devi Women's University, Bhoinagar P.O., Bhubaneswar, Odisha, Bhubaneswar - 751022, Orissa
- 3 Dr. Raj Kumar Joshi, Associate Professor, Biotechnology, Rama Devi Women's University, Bhoinagar P.O. Khorda - 751022, Orissa
- 4 Prof. Sanghamitra Nayak, Professor and Head, Centre of Biotechnology, Siksha O Anusandhan University, AT-Kalinga Nagar, Po-Ghatikia, Bhubaneswar - 751003, Orissa
- 5 Cash Section, DBT (2 copies).
- 6 Sanction Folder.
- 7 File Copy.




(Dr. Sanjay Kalia)
Scientist 'E'

Annexure -I

Details of the Equipment sanctioned for the implementation of the project titled "**Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**":

Rama Devi Women's University			
SNo.	Name of Equipment	No.	Cost(Rs.)
1.	Microvolume spectrophotometer	1	1100000.00
2.	Genome Workstation & accessories for small RNA analysis	1	150000.00
Total			1250000.00



(Dr. Sanjay Kalia)
Scientist 'E'

Annexure -II

Details of the manpower sanctioned for the implementation of the project titled "**Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**":

Head	No. of Position	Year I	Year II	Year III	Total (Rs.)
Junior Research Fellow For the maintenance of germplasm, FOC inoculation assay, large scale RNA isolation, cDNA library preparation, qPCR validation of sRNA and their targets, molecular cloning and vector construction	1	360000.00	360000.00		720000.00
Senior Research Fellow For the maintenance of germplasm, FOC inoculation assay, large scale RNA isolation, cDNA library preparation, qPCR validation of sRNA and their targets, molecular cloning and vector construction	1			403200.00	403200.00
Total(Rs.)		360000.00	360000.00	403200.00	1123200.00

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-09/2012 dated 21.10.2014.


(Dr. Sanjay Kalia)
(Scientist 'E')

No. BT/PR23412/BPA/118/284/2017
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, (6-8th Floors)
CGO Complex, Lodhi Road,
New Delhi- 110 003
Date: 24/09/2018

RELEASE ORDER

In continuation of this Department's sanction order of even number dated 24/09/2018 sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rule, 1978, for the release of Rs. **1250000.00** (Rupees Twelve Lakhs Fifty Thousand Only) being the first year release for the project entitled "**Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**", being implemented by:

Dr. Raj Kumar Joshi, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Bhubaneswar, Orissa

The detailed break-up is as given below:

SN	Institute Name	Non Recurring		Total Release Amount (Rs)
		Equipment	Other	
1	Rama Devi Women's University Bhubaneswar	1250000.00	0.00	1250000.00

2. The amount of Rs. **1250000.00** /-(**Rupees Twelve Lakhs Fifty Thousand Only**) will be directly credited by the Pay & Accounts Officer, DBT in the account as detailed below:

The Registrar, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Bhubaneswar, Orissa

Bank Name : State Bank of India
Branch Name : IDCO Tower Branch
A/c No. : 35029789537
IFSC Code : SBIN0007891
MICR Code : 751002007

3. The expenditure involved is debit to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

4. The Registrar, Rama Devi Women's University, Bhubaneswar, Orissa will submit audited utilization certificates and statements of expenditure in respect of the above-mentioned amount.
5. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations 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 Organisation is called upon to do so.
6. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
7. 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 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.
8. No utilization Certificate is pending with the implementing Institute. All the Utilization certificate due for rendition have been received and accepted by the head of the Division/Competent Authority.
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 percent per annum thereon shall be recovered.
The Non-recurring amount should be utilized within 18 months from the date of Sanction order.
The other terms and conditions governing the financial sanction will remain unaltered.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their **SAN No. 102/IFD/SAN/2465/2018-2019** dated **21/09/2018**.
10. This sanction order has been noted at serial no. **164** in the Register of Grants.


(Dr. Sanjay Kalia)
Scientist 'E'

To,

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

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), AGCR Building, New Delhi-110 002.
- 2 The Registrar, Rama Devi Women's University, Bhoinagar P.O., Bhubaneswar, Odisha, Bhubaneswar - 751022, Orissa
- 3 Dr. Raj Kumar Joshi, Associate Professor, Biotechnology, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Orissa
- 4 Cash Section, DBT (2 copies).
- 5 Sanction Folder.
- 6 File Copy.


(Dr. Sanjay Kalia)
Scientist 'E'

No. BT/PR23412/BPA/118/284/2017
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, (6-8th Floors)
CGO Complex, Lodhi Road,
New Delhi- 110 003
Date: 24/09/2018

RELEASE ORDER

In continuation of this Department's sanction order of even number dated 24/09/2018 sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rule, 1978, for the release of Rs. **1060000.00** (Rupees Ten Lakhs Sixty Thousand Only) being the first year release for the project entitled "**Delineating the small RNA networks associated with host resistance and pathogenesis of basal rot fungus 'Fusarium oxysporum f. sp. cepae' in Allium cepa L.**", being implemented by:

Dr. Raj Kumar Joshi, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Bhubaneswar, Orissa

The detailed break-up is as given below:

SN	Institute Name	Recurring						Total Release Amount (Rs)
		Manpower	Consumable	Travel	Contingency	Others	Overhead	
1	Rama Devi Women's University Bhubaneswar	360000.00	600000.00	50000.00	50000.00	0.00	0.00	1060000.00

2. The amount of Rs. **1060000.00** /-(Rupees Ten Lakhs Sixty Thousand Only) will be directly credited by the Pay & Accounts Officer, DBT in the account as detailed below:

The Registrar, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Bhubaneswar, Orissa

Bank Name : State Bank of India
Branch Name : IDCO Tower Branch
A/c No. : 35029789537
IFSC Code : SBIN0007891
MICR Code : 751002007

3. The expenditure involved is debit to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2018-2019
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants-in-Aid General



4. The Registrar, Rama Devi Women's University, Bhubaneswar, Orissa will submit audited utilization certificates and statements of expenditure in respect of the above-mentioned amount.
5. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations 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 Organisation is called upon to do so.
6. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
7. 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 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.
8. No utilization Certificate is pending with the implementing Institute. All the Utilization certificate due for rendition have been received and accepted by the head of the Division/Competent Authority.
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 percent per annum thereon shall be recovered.
The other terms and conditions governing the financial sanction will remain unaltered.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their **SAN No. 102/IFD/SAN/2464/2018-2019** dated **21/09/2018**.
10. This sanction order has been noted at serial no. **163** in the Register of Grants.



(Dr. Sanjay Kalia)
Scientist 'E'

To,

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

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), AGCR Building, New Delhi- 110 002.
- 2 The Registrar, Rama Devi Women's University, Bhoinagar P.O., Bhubaneswar 751022, Orissa
- 3 Dr. Raj Kumar Joshi, Associate Professor, Biotechnology, Rama Devi Women's University, Bhoinagar P.O., Khorda - 751022, Orissa
- 4 Cash Section, DBT (2 copies).
- 5 Sanction Folder.
- 6 File Copy.



(Dr. Sanjay Kalia)
Scientist 'E'