No. BT/PR31861/BIC/101/1222/2019

GOVERNMENT OF INDIA MINISTRY OF SCIENCE & TECHNOLOGY DEPARTMENT OF BIOTECHNOLOGY

> Block 2, 6-8th Floors CGO Complex, Lodhi Road, New Delhi- 110 003

> > Dated: 13.11.2019

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 "Development of ultrasensitive luminescent paper biosensor for quantification of cadmium and arsenic heavy metal contamination in drinking water and seafood" for a period of 3 Year 0 Month at a total cost of Rs.4225853 (Rupees Forty Two Lakhs Twenty Five Thousand Eight Hundred and Fifty Three only) on the terms and conditions detailed here under:-

2 The Project:

2.1 Title:

Development of ultra-sensitive luminescent paper biosensor for quantification of cadmium and arsenic heavy metal contamination in

2.2 Details of the Investigators:

PI:

Dr. Manisha Tiwari

Biotechnology department Goa University Velvan Court, Ground floor, St. Merry colony, Miramar, Panaii, Goa-403001

Mentor:

Prof. Savita Kerkar Professor & HOD, Dept. of Biotechnology, Goa University, Taleigao Plateau, Goa-403001

2.3 Objectives:

Development of ultra-sensitive luminescent paper biosensor for quantification of 1 cadmium and arsenic heavy metal contamination in drinking water and seafood

2.4 Time Schedule:

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

डॉ. सुरक्षा एस. दीवान Dr. Suraksha S. Diwan वैज्ञानिक 'हं / Scientist 'E' बायोदेक्नोलॉजी विभाग / Deptt. of Biotechnology विज्ञान और प्रोद्यो. मंत्रालय/M/o Science & Tech. ।বহাণে আर সাম্বা, নসালব/ াগতে ৯cience ও iecri. পাৰ্বন সংকাৰ, দুৰ্হ বিল্লী/Govt. of India, N. Delhi

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2.5 Project Cost:

The total cost of the project is Rs.4225853/-(Rupees Forty Two Lakhs Twenty Five Thousand Eight Hundred and Fifty Three only) as per details given below:

Budget Head	Year I	Year II	Year III	Total(Rs.)
	108253.00			108253.00
Equipment		950200 00	859200.00	2577600.00
Manpower	859200.00	859200.00		
Overhead	60000.00	45000.00	35000.00	140000.00
Travel	50000.00	50000.00	50000.00	150000.00
	500000.00	350000.00	250000.00	1100000.00
Consumables		50000.00	50000.00	150000.00
Contingency	50000.00			4225853.00
Total (Rs.)	1627453.00	1354200.00	1244200.00	4223633.00

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. 87	nd No. 87 Department of Biotechnology			
	Other Scientific Research 2019-2020			
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			
A THE PROPERTY OF THE PARTY OF				

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

Demand No. 87 Department of Biotechnology		
3425	Other Scientific Research 2019-2020	
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	

क्षामोटेक्नोत्संपी विशास / Dept. of Biotechnology क्षामोटेक्नोत्संपी विशास / Dept. of Science & Tech. क्षामोटेक्नोत्संपी विशास / Dept. of India, N. Delhi विभाग अपेर प्राची विश्वकी / Gov. of India, N. Delhi

4. Terms & Conditions:

Considering the time bound nature of the project, the project will be monitored by the Task Force/Committee constituted by DBT. In addition, the PI will submit half yearly progress report as per format in Annexure-V.

- 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 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 earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further 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, Goa University, Goa, Goa 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 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.
- **9.** 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
- 10. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clarence, 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.
- 11. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/2649/2019-2020 dated 11.11.2019.

12. This sanction order has been noted at serial no. 99 in the Register of Grants.

(Suraksha S. Diwan)
Scientist 'E'

डॉ. सुरक्षा एस. दीवान Dr. Suraksha S. Diwan वैज्ञानिक 'ई' / Scientist 'E' बायोटेक्नोटॉजी विभाग / Deptt. of Biotechnology विज्ञान और प्रोटो. मंत्रालय / M/o Science & Tech, भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

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

Copy to:

- The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 The Registrar, Goa University, Taleigao Plateau, Goa, Goa 403206, Goa
- 3 Dr. Manisha Tiwari, PI, Biotechnology Department, Goa University, Velvan Court, Ground floor, St. Merry Colony, Miramar, Panaji 403001, Goa
- 4 Prof. Savita Kerkar, Professor & HOD, Dept. of Biotechnology, Goa University, Taleigao Plateau, Goa-403001.
- 5 Cash Section, DBT (2 copies).
- 6 Sanction Folder.
- 7 File Copy.

(Suraksha S. Diwan) Scientist 'E'

डॉ. सुरक्षा एस. दीवान
Dr. Suraksha S. Diwan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रोद्यो. मंत्रालय / M/o Science ह कर्

Annexure -I

Details of the Equipment sanctioned for the implementation of the project entitled "Development of ultra-sensitive luminescent paper biosensor for quantification of cadmium and arsenic heavy metal contamination in drinking water and seafood":

Goa University					
S No.	Name of Equipment	No.	Cost(Rs.)		
1.	Fluorescent microscopy component	1	108253.00		
		Total	108253.00		

(Suraksha S. Diwan) Scientist 'E'

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विक्षान और प्रोद्यों, मंत्रालय / M/o Science & Tech.
भारत सरकार, गई दिल्ली / Govt. of India, N. Delhi