

### 2.3 Objectives:

1. Development of cyto-pathological biomarkers in kidney gill and brain
2. To demonstrate the ecological relevance associated with combining cellular biomarkers with cyto-pathology
3. Development of hormonal biomarkers e.g. T3 and T4 TSH, Cortisol, Testosterone and Estrogen
4. Development of enzymatic and antioxidants biomarkers e.g. Glutathione, Super oxidase dismutase, Catalase, Pyruvate kinase, Glucose - 6 phosphate dehydrogenase, and Ascorbic acid
5. Development of new cellular and hormonal biomarkers as Bio-monitoring tools for early assessment of biological effect of complex mixture of pollutants
6. Development of biomarkers based on gonadal and hormonal disruption indicative of pollutant alteration revealing secondary effects at population/community level
7. Validation of the methodology for the biomarker use in ecological risk assessment
8. Preparation of information and advice to decision makers and fisheries and related institutions about the biological effects of chemical toxicants in the fresh water fish
9. Application of cyto-pathological and biochemical biomarkers in environmental monitoring schemes and integration into national monitoring program
10. Development of simple, sensitive and cost-effective environmental monitoring systems of biological effects
11. Development of tools for environmental risk assessment and acceptance criteria for monitoring effluents that can safeguard the interests of precautionary principle

### 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. **2952800/-** (Rupees Twenty Nine Lakhs Fifty Two Thousand Eight Hundred Only) as per details given below :

Budget Head	Year I	Year II	Year III	Total (Rs.)
Equipment	1340000.00			1340000.00
Manpower	297600.00	297600.00	297600.00	892800.00
Travel	40000.00	40000.00	40000.00	120000.00
Consumables	450000.00	150000.00	140000.00	450000.00
Contingency	50000.00	50000.00	50000.00	150000.00
<b>Total (Rs.)</b>	<b>1887600.00</b>	<b>537600.00</b>	<b>527600.00</b>	<b>2952800.00</b>

### 2.5 Equipment:

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

### 2.5.1 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:

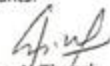
<b>Demand No. 87</b>	<b>Department of Biotechnology</b>
<b>3425</b>	Other Scientific Research 2012-2013
<b>3425.60</b>	Others (Sub Major Head)
<b>3425.60.200</b>	Assistance to other Scientific Bodies (Minor Head)
<b>3425.60.200.29</b>	Research & Development
<b>3425.60.200.29.02</b>	Bioresource and Environment Biotechnology
<b>3425.60.200.29.02.35</b>	Grants for creation of capital assets

The Recurring expenditure involved is debitable to:

<b>Demand No. 87</b>	<b>Department of Biotechnology</b>
<b>3425</b>	Other Scientific Research 2012-2013
<b>3425.60</b>	Others (Sub Major Head)
<b>3425.60.200</b>	Assistance to other Scientific Bodies (Minor Head)
<b>3425.60.200.29</b>	Research & Development
<b>3425.60.200.29.02</b>	Bioresource and Environment Biotechnology
<b>3425.60.200.29.02.31</b>	Grants in Aid General

#### 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 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, Patna University, Patna, Bihar would be responsible for submission of Statements of Expenditure (S/E) and consolidated utilization certificates (U/Cs) to DBT from PIs in respect of grants released against this sanction order from time to time.
- 7. The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
- 8. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/5205/2012-2013 dated March, 07 2013.
- 9. This sanction order has been noted at serial no. 87 in the Register of Grants.

  
 Dr. Onkar N Tiwari  
 (Scientist 'C')

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-002.
- 2 The Registrar, Patna University, New Administrative Building  
Patna University Main Campus, Patna - 800005, Bihar
- 3 Dr. Chaudhary Shu-fudding, Associate Professor, Post Graduate Department of Botany  
Patna University, Ashok Rajpath, Patna - 800005, Bihar
- 4 Dr. Rajneesh Kumar, Associate Professor, Department of Chemistry, Patna University,  
Ashok Rajpath, Patna - , Bihar
- 5 Prof. Ramesh Chandra Sinha, Chief Executive & Chairman, CENC, Department of Zoology,  
Patna University, Ashok Rajpath, Patna - 800005, Bihar
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.

  
Dr. Onkar N Tiwari  
(Scientist 'C')



(12)

F. No. 42-94/2013 (SR)

Under Secretary (FD-III)  
University Grants Commission  
New Delhi-110002

Sub:- UGC support for the Major Research Project in Physical Sciences, Bio-Sciences, Maths, Medical, Agricultural Sciences and Engineering & Chemistry to University/College Teachers – Project entitled, "Security perspective and geostrategic, and geopolitical realities of the borderlands management management in Jammu & Kashmir : A study in relation to Pakistan and China"

Sir,

I am to refer to your letter forwarding the application of Dr. Sudeepta Adhikari of your institution for financial assistance under the above scheme and to convey the Commission's approval & sanction an on account grant of Rs. 6,96,800/- (Rupees: six lakh ninety six thousand eight hundred only) to the Registrar, Patna University, Patna-800005, Bihar in n/o Major Research Project of Dr. Sudeepta Adhikari, Department of Geography for the period of 3 years w.e.f. 1.4.2013 as detailed below:-

S.No	ITEMS	AMOUNT APPROVED	GRANT RELEASED AS 1st INSTALMENT	Category
<b>A.</b>	<b>Non - Recurring</b>		<b>2,00,000/-</b>	GEN
1.	Books & Journals	50,000/-		
2.	Equipment (as per proposal)	1,50,000/-		
<b>B.</b>	<b>Recurring</b>		<b>4,96,800/-</b>	
1.	Honorarium to Retd. Teacher @ Rs. 12, 000/- p.m.	nil		
2.	Project Fellow @14,000/- p.m. for initial 2 years and Rs. 16,000/- p.m. from the third year onwards.	5,28,000/-		
3.	Chemical/ Glassware / Consumable	95,000/-		
4.	Hiring Services	1,00,000/-		
5.	Contingency	1,50,000/-		
6.	Travel/Field Work	nil		
7.	Special Need	70,300/-		
8.	Overhead Charges @ Rs. 10% approved recurring Grant (Except Travel & Field Work)	11,23,300/-	<b>6,96,800/-</b>	
<b>Total (A + B)</b>				

The acceptance Certificate in prescribed format (Annexure-1 available on the UGC web-site) may be sent to the undersigned within one month from the issue of the award letter failing which the project may be treated as cancelled.

If the terms & conditions are acceptable, as per guideline which are available on UGC web-site [www.ugc.ac.in](http://www.ugc.ac.in) the Demand Draft/ Cheque being sent may be retained. Otherwise the same may be returned in original to the UGC by Registered Post in variability with in 15 days from the receipt of the Demand Draft/Cheque in favour of Secretary, UGC, New Delhi.

Principal Investigators should ensure that the statement of expenditure & utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission in time.

The first instalment of the grant shall comprise of 100% of the Non -Recurring including Over Head Charges, and 50% of the total Recurring grant.

No. T-WQM-PR-R.GANGA- 549E  
 National Mission for Clean Ganga  
 National Ganga River Basin Authority  
 Ministry of Water Resources, River Development & Ganga Rejuvenation

1<sup>st</sup> Floor  
 Major Dhyan Chand National Stadium,  
 India Gate, New Delhi - 110002  
 Dated: 25<sup>th</sup> November 2016

Sanction

I am directed to convey the approval of the Competent Authority for the release of payment of Rs. 1,07,34,983/- (Rupees One Crore Seven Lakhs Thirty Four Thousand Nine Hundred Eighty Three only) to Department of Zoology, Patna University for Water Quality Monitoring Project of River Ganga (Bihar stretch) for National Ganga River Basin Authority Projects for the period from April 2011 - March 2016 to as per details given below:

S.No.	Details	Financial Year	Amount in Rs.
1	Water Quality Monitoring Project of River Ganga (Bihar stretch)	2011 - 12	24,50,778/-
2		2012 - 13	24,50,470/-
3		2013 - 14	19,07,595/-
4		2014 - 15	19,63,070/-
5		2015 - 16	19,63,070/-
		<b>Total</b>	<b>1,07,34,983/-</b>

2. The Finance Section, NMCG is hereby authorized to prepare and submit the bill of Rs. 1,07,34,983/- (Rupees One Crore Seven Lakhs Thirty Four Thousand Nine Hundred Eighty Three only) to make payment electronically to Patna University, Patna whose bank details are given below.

Name of the Implementing Agency	Address of the Implementing Agency	Name of bank where Account of Agency held	Name complete address of the Branch & Bank	MICR Code & IFSC Code	Type of Account	Account No.
Patna University, Patna	Patna University, Patna - 800005	Allahabad Bank	Allahabad Bank, Patna University Branch, Patna - 800005	MICR-800010003 IFSC-ALLA0210002	Saving Account	20245318550

T-2016



Receipts of funds may kindly be acknowledged by way of a letter.

3. The expenditure involved is debitable to the non- EAP bank account of NMCG for the year 2016-17.
4. This issues with the approval of Mission Director, NMCG and concurrence of Director (Finance) vide diary no. 2120/Dir(Fin) dated 11.11.2016.

  
25/11/2016  
(K. K. Sapra)  
Under Secretary

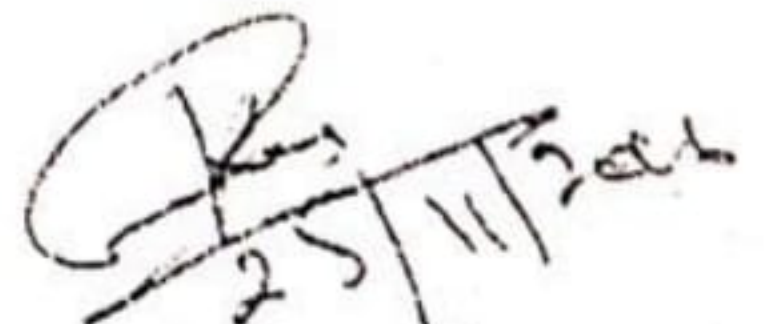
To.

Consultant (B&A) (To release above payment)

Copy to: The Registrar, Patna University, Patna – 800005 (Bihar)

Copy for information to:

1. PS to Mission Director, NMCG.
2. PS to Director (Finance), NMCG.
3. US (SMD), NMCG
4. Dr. R. K. Sinha, Professor, Department of Zoology, Patna University, Patna – 800005
5. Sanction File/ Guard file.

  
25/11/2016  
(K. K. Sapra)  
Under Secretary



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विश्वविद्यालय अनुदान आयोग  
बहादुरशाह जफर मार्ग  
नई दिल्ली-110 002  
UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110 002

F. No. 6-139/2012 (HRP)

The Under Secretary (FD-III)  
University Grants Commission  
New Delhi-110002

30 AUG 2012

Sub:- UGC support for the Minor Research Project in Humanities and Socials Sciences to University/College Teachers - Project entitled, "Working Dynamics of Consumers Protection Laws in the City of Patna- A Critical Study"

Sir,

I am to refer to your letter forwarding the application of **Dr. Vani Bhushan** of your institution for financial assistance under the above scheme and to convey the Commission's approval & sanction on an account grant of **Rs. 1,00,000/- (Rupees: One lakh only)** to the Registrar, Patna University, Patna-800 006, Bihar in r/o Minor Research Project of **Dr. Vani Bhushan**, Department of Law for the period of **18 months** w.e.f. 1.7.2012 as detailed below:-

S.No.	ITEMS	Amount Approved	Grant Released as 1st instalment	Category
<b>A.</b>	<b>Non - Recurring</b>			
1.	Books & Journals	50,000/-	50,000/-	
2.	Equipment ( )	-----		
<b>B.</b>	<b>Recurring</b>			
1.	Honorarium to Retd. Teacher @ Rs. 12,000/- p.m.	-----	50,000/-	
2.	Project Fellow @ Rs.14,000/- p.m.	-----		
3.	Contingency ( )	50,000/-		
4.	Hiring Services	-----		
5.	Travel/Field Work	50,000/-		
6.	Any other (P.L. Specify)	-----		
7.	Overhead Charges 10% of approved recurring Grant (Except Travel & Field Work)	-----		
	<b>Total (A + B)</b>	<b>Rs. 1,50,000/-</b>	<b>Rs.1,00,000/-</b>	

The acceptance Certificate in prescribed format (Annexure-I available on the UGC web-site) may be sent to the undersigned within one month from the issue of the award letter failing which the project may be treated as cancelled.

If the terms & conditions are acceptable, as per guideline which are available on UGC web-site [www.ugc.ac.in](http://www.ugc.ac.in) the Demand Draft/ Cheque being sent may be retained. Otherwise the same may be returned in original to the UGC by Registered Post in variably with in 15 days from the receipt of the Demand Draft/Cheque in favour of Secretary, UGC, New Delhi.

Principal Investigators should ensure that the statement of expenditure & utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission in time.

The first instalment of the grant shall comprise of 100% of the Non -Recurring including Over Head Charges, and 50% of the total Recurring grant.



The sanctioned amount is debit to the Minor Head 4.(b)(i)(31) Rs.50,000/- & Head 4.(b)(i)(31) Rs.50,000/- and is valid for payment during financial year 2012-13.

The amount of the Grant shall be drawn by the Under Secretary (drawing and Disbursing Office), University Grants Commission on the Grants-in-aid Bill and shall be disbursed to and credited to the University/College.

Patna University, Patna- 800 006, Bihar through Cheque/Demand Draft/ Mail Transfer  
The Grants is subject to the adjustment of the basis of Utilization Certificate in the prescribed performa submitted by the University/Colleges/institution.

The University/College shall maintain proper accounts of the expenditure out of the grants which shall be utilized only on approved items of expenditure.

The Utilization Certificate of the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission as early as possible after the close of the current financial year.

The assets acquired wholly or substantially out of University Grant Commission's grant shall not be disposed or encumbered or utilized for the purposes other than those for which the grant was given, without proper sanction of the University Grants Commission and should, at any time the College/University ceased in function such assets shall revert to the University Grant Commission.

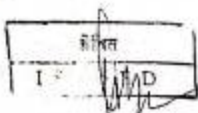
7. A Register of assets acquired wholly or substantially out of the grant shall be maintained by the University/College in the prescribed form.
8. The grantee institution shall ensure the utilization of grant-in-aid for which it is being sanctioned/paid. In case non-utilization/part utilization, the simple interest @ 10% per annum as amended from time to time on unutilized amount from the date of draw to the date of refund as per provisions contained in General Financial Rules of Govt. of India will be charged.
9. The interest earned by the University/College/Institute on this grants in aid shall be treated as additional grant and may be shown in the Utilization Certificate/Statement of expenditure to be furnished by grantee institution.
10. The University/College/Institute shall follow strictly all the instructions issued by the Government of India from time to time with regard to reservation of posts for Scheduled Castes/Scheduled Tribes/OBC/PH etc.
11. The University/College shall fully implement to Official Language Policy of Union Govt. and comply with the Official Language Act, 1963 and Official Languages (Use for Official purposes of the Union) Rules, 1978 etc.
12. The sanction issues in exercise of the delegation of powers vide Commission Order No. 25/2 dated May 01, 1992.
13. An amount of Rs. ----- out the grant of Rs. ----- sanctioned vide letter No. F. 6-139/2012 (H.R.P) dated has been utilized by University/College/Institution for the purpose for which it was sanctioned. Utilization Certificate for Rs. ----- has already been entered at S. No. ----- now we may enter Utilization Certificate for Rs. ----- S. No. ----- and in the U. C. Registrar at page No. -----.
14. It is also certified from the B.C.R. that the funds are available under the scheme. Entered in BCR at S.No. 1466 P No. 87. The above grant is sanctioned against the budget provision of Rs. ----- during the current financial year leaving a balance of Rs. ----- under the Head 4.(b)(i)(31) Rs. 50,000/- & Head 4.(b)(i)(31) Rs.50,000/-.
15. The funds to the extent are available under the Scheme.
16. The University/Institution/College is strictly following the UGC regulations on curbing the menace of ragging in Higher Educational Institutions, 2009.

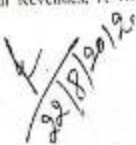
d/c

  
(Kamla Barua)  
Deputy Secretary

Copy forwarded for information and necessary action for:-

1. The Registrar, Patna University, Patna- 800 006, Bihar.  
Acknowledgement for the receipt of DD / Cheque / Mail Transfer for Rs. 1,00,000/- may be sent to the Under Secretary, Finance Division III, UGC.
2. Dr. Vani Bhushan, Principal Investigator, Department of Law, Patna University, Patna- 800 006, Bihar.
3. Office of the Director General of Audit, Central Revenues, A G. C. R. Building, I. P. Estate, New Delhi.

  
Patna University  
I. P. Estate, New Delhi

  
22/8/2012

  
22.8.2012  
(R. S. Bharati)  
Section Officer





F. No. 41-1419/2012 (SR)

The Under Secretary (FD-III)  
University Grants Commission  
New Delhi-110002

30 JUL 2012

Sub:- UGC support for the Minor Research Project in Physical Sciences, Bio-Sciences, Maths, Medical, Agricultural Sciences and Engineering & Chemistry to University/College Teachers – Project entitled, “Socio-economic problems and the impact of Jawaharlal Nehru National Urban Renewal Mission on the Slum dwellers of Patna”

Sir,

I am to refer to your letter forwarding the application of Dr. Anuradha Sahay of your institution for financial assistance under the above scheme and to convey the Commission's approval & sanction an on account grant of Rs. 1,20,000/- (Rupees: one lakh twenty thousand only) to the Registrar, Patna University, Patna-800005, Bihar in r/o Minor Research Project of Dr. Anuradha Sahay, Department of Geography for the period of 2 years w.e.f. 1.7.2012 as detailed below:-

S.No.	ITEMS	AMOUNT APPROVED	GRANT RELEASED AS 1st INSTALMENT	Category
<b>A.</b>	<b>Non - Recurring</b>		<b>80,000/-</b>	<b>GEN</b>
1.	Books & Journals	30,000/-		
2.	Equipment (As per proposal)	50,000/-		
<b>B.</b>	<b>Recurring</b>		<b>40,000/-</b>	
1.	Chemical/ Glassware / Consumable	nil		
2.	Hiring Services	nil		
3.	Contingency	50,000/-		
4.	Travel/Field Work	30,000/-		
5.	Special Needs	nil		
	<b>Total (A + B)</b>	<b>1,60,000/-</b>	<b>1,20,000/-</b>	

The acceptance Certificate in prescribed format (Annexure-1 available on the UGC web-site) may be sent to the undersigned within one month from the issue of the award letter failing which the project may be treated as cancelled.

If the terms & conditions are acceptable, as per guideline which are available on UGC web-site [www.ugc.ac.in](http://www.ugc.ac.in) the Demand Draft/ Cheque being sent may be retained. Otherwise the same may be returned in original to the UGC by Registered Post in variably with in 15 days from the receipt of the Demand Draft/Cheque in favour of Secretary, UGC, New Delhi.

Principal Investigators should ensure that the statement of expenditure & utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission in time.

The first instalment of the grant shall comprise of 100% of the Non -Recurring including Over Head Charges, and 50% of the total Recurring grant.

D.O  
7.8.12  
A478



Government of India  
Department of Atomic Energy (DAE)  
Board of Research in Nuclear Sciences (BRNS)

**Shri Subrata Dutta**

Programme Officer, BRNS and  
Co-ordinator, KSKRA & DGFS  
E-mail: dsubrata@barc.gov.in

BRNS Secretariat, 1<sup>st</sup> Floor, CC  
BARC, Mumbai-400 085  
Phone: 25595331  
FAX: 022-25505151

No.2012/35/5/BRNS/ No 5 37 - 1

Date: 21 MAY 2012

**OFFICE MEMORANDUM**

Sub: R/P entitled "Radiation pretreatment of cellulosic agro-wastes for production of bio-ethanol" under Dr. Birendra Prasad, Associate Professor, Patna University, Patna-800 005, Bihar bearing sanction No.2012/35/5/BRNS with RTAC, BRNS.

On the recommendations of the Board of Research in Nuclear Sciences (BRNS), I am pleased to convey the administrative approval and sanction of the President of India for the captioned project for three years beginning from financial year **2012-13** with a total grant of **₹.24,70,600/- (Rupees twenty-four lakh seventy thousand and six hundred only)** for the project as under:

Item of expenditure	I Year (2012-2013)	II Year (2013-2014)	III Year (2014-2015)
* Equipment	4,70,000	-----	-----
# Staff RA (1)	2,64,000	2,64,000	2,64,000
~ Technical Assistance	24,000	24,000	24,000
Consumables	1,50,000	1,00,000	1,00,000
Travel (PI)	70,000	70,000	70,000
(PC)	50,000	50,000	50,000
Contingency	40,000	40,000	40,000
\$ Overheads	77,100	38,100	38,100
Total:	11,45,100	5,86,100	5,86,100

\* Spectrophotometer

# RA salary calculated @ ₹.22,000/- p.m. consolidated.

~ Technical Assistance includes Equipment Hire Charges, Computer Charges and Charges for Hiring Services.

\$ Overheads calculated @ 7.5% of the other heads except contingency. The remaining 7.5% towards overheads (₹.1,53,300/-) shall be released only on meeting the requirements specified (See Annex-B).

*W*  
*22/05/2012*





ज्ञान-विज्ञान विभूतय  
UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110002

No. F. 5- 55/2010(IIRP)

The Under Secretary (FDIII),  
University Grants Commission,  
Bahadur Shah Zafar Marg,  
New Delhi-110002.

M

21 DEC 2012

Sub:- Release of Grants-in-aid to **Patna University, DIST.:Patna - 800 005, Bihar** (affiliated to )  
towards Major Research Project undertaken by **Dr. Dharmshila Prasad, Deptt. of Sociology.**

Sir,

I am directed to convey the sanction of the Commission for payment of Rs.3,07,820/- (Rupees **Three lakhs seven thousand eight hundred and twenty only**) to **Patna University, DIST.:Patna - 800 005, Bihar** towards Major Research Project in respect of **Dr. Dharmshila Prasad, Deptt. of Sociology** as per the details given below:-

S.NO	PURPOSE	Amount allocated RS.	Amount already Released RS.	Amount Being Released RS.	Total grant sanctioned including the present instalment RS.
(1)	<b>Non- Recurring</b>				
(i)	Books & Journal	10,000/-			
(ii)	Equipments				
(2)	<b>Recurring</b>				
(i)	Honorarium		1,95,200/-	3,07,820/-	5,03,020/-
(ii)	Project Fellow @Rs.14000/- p.m. + * HRA	3,36,000/- + * 57,600/-			
(iii)	Contingency	50,000/-			
(iv)	Hiring Services				
(v)	Travel/fieldwork	80,000/-			
(vi)	Overhead	24,200/-			
	<b>Total</b>	<b>5,57,800/-</b>	<b>1,95,200/-</b>	<b>3,07,820/-</b>	<b>5,03,020/-</b>

- The sanctioned amount is debitable to the major head 4.(i)(b)(i)(31) and is valid for payment during the financial year 2012-2013 only.
- The amount of the grant shall be drawn by the Under Secretary (Drawing & Disbursing Officer), University Grants Commission on the Grant-in-aid bill and shall be disbursed to and credited to the **Registrar, Patna University, DIST.:Patna - 800 005, Bihar** through Cheque/ Demand Draft/ Mail Transfer.
- The Grant is subject to the adjustment on the basis of the Utilization Certificate in the prescribed proforma submitted by the University/College/ Institution.
- The University/College shall maintain proper accounts of the expenditure out of the grants which shall be utilized only on approved items of expenditure.
- The Utilization Certificate to the effect that the Grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the University Grants Commission as early as possible after the close of the current financial year.
- The Assets acquired wholly or substantially out of the University Grants Commission's Grant shall not be disposed or encumbered or utilized for the purpose other than those for which the grant was given without proper sanction of the University Grants Commission and should, at any time of the University ceased to function such Assets shall revert to the University Grants Commission.

P.T.O.



No. BT/PR4577/INF/22/149/2012  
GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE & TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors  
CGO Complex, Lodhi Road,  
New Delhi- 110 003  
Dated 26/03/2012

**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 "**DBT-Patna University-IPLS**

**Programme for Advance Research and Education**" for a period of 5 Year 0 Month at a total cost of Rs. **44896830** (Rupees Four Crores Fourty Eight Lakhs Ninety Six Thousand Eight Hundred and Thirty Only) on the terms and conditions detailed here under:-

**2 The Project :**

**2.1 Title :** "DBT-Patna University-IPLS  
**Programme for Advance Research and Education"**

**2.2 Project Investigator :**

**Prof. Upendra Kishore Sinha**  
PI  
Botany  
Patna University  
Department of Botany, Patna University, Patna, Patna -  
800005, Bihar

**CO-PI:**

**Dr. Parimal Kumar Khan**  
Associate Professor  
Zoology  
Patna University  
Department of Zoology, Patna University, Patna - 800005,  
Bihar

**Dr. Birendra Prasad**  
Associate Professor  
Biotechnology  
Patna University  
Department of Biotechnology, Patna University, Patna,  
Patna - 800005, Bihar

**2.3 Objectives:**

- (a) Assessment, maintenance and conservation of Medicinal Plant Biodiversity of Bihar
- (b) Assessment of Antimutagenicity of certain herbal extracts in modulating environmental mutagenesis in fishes.
- (c) Exploration of microbial biodiversity in the search of antimicrobial secondary metabolite producers, agro-wastes degraders and biocontrol agents.

**2.4 Time Schedule:**

The duration of the project is 5 Year 0 Month from the date of this sanction order.

### 2.5 Project Cost:

The total cost of the project is Rs. **44896830/-** (Rupees Four Crores Fourty Eight Lakhs Ninety Six Thousand Eight Hundred and Thirty Only) as per details given below :

Budget Head	Year I	Year II	Year III	Year IV	Year V	Total (Rs.)
Equipment	21083470.00					21083470.00
Manpower	2583552.00	3980352.00	5189952.00	4153152.00	2756352.00	18663360.00
Overhead	200000.00	200000.00	200000.00	200000.00	200000.00	1000000.00
Consumables	400000.00	400000.00	400000.00	400000.00	400000.00	2000000.00
Contingency	100000.00	100000.00	100000.00	100000.00	100000.00	500000.00
Travel	100000.00	100000.00	100000.00	100000.00	100000.00	500000.00
Laboratory Training Workshops, Short term training programme for faculty	50000.00	50000.00	50000.00	50000.00	50000.00	250000.00
Remuneration to mentors	100000.00	100000.00	100000.00	100000.00	100000.00	500000.00
short term training programme for faculty outside the university		100000.00	100000.00	100000.00	100000.00	400000.00
<b>Total (Rs.)</b>	<b>24617022.00</b>	<b>5030352.00</b>	<b>6239952.00</b>	<b>5203152.00</b>	<b>3806352.00</b>	<b>44896830.00</b>

### 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	Department of Biotechnology
3425	Other Scientific Research 2011-2012
3425.60	Others
3425.60.200	Assistance to other Scientific Bodies
3425.60.200.40	Biotech Facilities
3425.60.200.40.00	Biotech Facilities
3425.60.200.40.00.35	Grants for creation of capital assets


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

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2011-2012
3425.60	Others
3425.60.200	Assistance to other Scientific Bodies
3425.60.200.40	Biotech Facilities
3425.60.200.40.00	Biotech Facilities
3425.60.200.40.00.31	Grants In Aid General

#### 4. Terms & Conditions:

The terms and conditions related to work plan and monitoring etc. are available under Annexure - V

- 4.1 The other terms and conditions governing this sanction are attached at Annexure- III.
- 4.2A 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, Patna University, Patna, Bihar would be responsible for submission of Statements of Expenditure (S/E) and consolidated utilization certificates (U/Cs) to DBT from PIs in respect of grants released against this sanction order from time to time.
- 7.The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
- 8.This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No. **102/IFD/SAN/5318/2011-2012** dated **March, 23 2012**.
- 9.This sanction order has been noted at serial no. 22 in the Register of Grants.

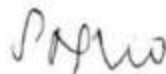
  
Dr. S/R Rao  
(Adviser)

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, Patna University, New Administrative Building  
Patna University Main Campus, Patna - 800005, Bihar
- 3 Dr. Birendra Prasad, Associate Professor, Biotechnology, Patna University, Department  
of Biotechnology, Patna University, Patna, Patna - 800005, Bihar
- 4 Dr. Parimal Kumar Khan, Associate Professor, Zoology, Patna University, Department of  
Zoology, Patna University, Patna - 800005, Bihar
- ✓ 5 Prof. Upendra Kishore Sinha, PI, Botany, Patna University, Department of Botany, Patna  
University, Patna, Patna - 800005, Bihar
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.



**Dr. S R Rao  
(Adviser)**



2013-16

No. BT/PR4/62/BCE/8/903/2012  
 GOVERNMENT OF INDIA  
 MINISTRY OF SCIENCE & TECHNOLOGY  
 DEPARTMENT OF BIOTECHNOLOGY

Dr RC Sinha  
 Project -

Block 2, (6-8th Floors)  
 LICO Complex, Lodhi Road,  
 New Delhi- 110 003  
 Date: 11/03/201

### RELEASE ORDER

In continuation of this Department's sanction order of even number dated Mar 07, 2013 sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rule, 1978, for the release of Rs. **547600.00** (Rupees Five Lakhs Fourty Seven Thousand Six Hundred Only) being the first year release for the project, entitled "**Cyto-pathological and Biochemical markers of pollution- A simple, sensitive and prognostic tool for water quality assessment**", being implemented by

Prof. Ramesh Chandra Sinha, Patna University, Ashok Rajpath, Patna - 800005, Bihar

The detailed break-up is as given below:

Sl. No.	Institute Name	Recurring					Overhead	Total Release Amount (Rs)
		Manpower	Consumable	Travel	Contingency	Others		
1	Patna University	297600.00	160000.00	40000.00	50000.00	0.00	0.00	547600.00

2. The amount of Rs. **547600.00** /-(Rupees Five Lakhs Fourty Seven Thousand Six Hundred Only) will be drawn by the Drawing & Disbursing Officer, DBT, from the Pay I, Accounts Officer, DBT, and disbursed through RTGS as per following details:

The Registrar, Patna University, New Administrative Building  
 Patna University Main Campus, Patna - 800005, Bihar

Bank Name : Central Bank of India  
 Branch Name : Patna University  
 A/c No. : 3043949898  
 IFSC Code : CBIN0283532  
 MICR Code : 800018024

3. The expenditure involved is debitible to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2012-2013
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Research & Development
3425.60.200.29.02	Bioresource and Environment Biotechnology
3425.60.200.29.02.31	Grants in Aid General



**Objectives:**

1. Development of cyto-pathological biomarkers of liver, kidney gill and brain
2. To demonstrate the ecological relevance associated with combining cellular biomarkers with cyto-pathology
3. Development of hormonal biomarkers e.g. T3 and T4 TSH, Cortisol, Testosterone and Estrogen
4. Development of enzymatic and antioxidants biomarkers e.g. Glutathione, Super oxide dismutase, Catalase, Pyruvate kinase, Glucose - 6 phosphate dehydrogenase, and Ascorbic acid
5. Development of new cellular and hormonal biomarkers as Bio-monitoring tools for early assessment of biological effect of complex mixture of pollutants
6. Development of biomarkers based on gonadal and hormonal disruption indicative of pollutant alteration revealing secondary effects at population/community level
7. Validation of the methodology for the biomarker use in ecological risk assessment
8. Preparation of information and advice to decision makers and fisheries and related institutions about the biological effects of chemical toxicants in the fresh water fishes
9. Application of cyto-pathological and biochemical biomarkers in environmental monitoring schemes and integration into national monitoring program
10. Development of simple, sensitive and cost-effective environmental monitoring systems of biological effects
11. Development of tools for environmental risk assessment and acceptance criteria for monitoring pollutants that can safeguard the interests of precautionary principle

**1.4 Time Schedule:**

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

**1.5 Project Cost:**

The total cost of the project is Rs. **2952800/-** (Rupees Twenty Nine Lakhs Fifty Two Thousand Eight Hundred Only) as per details given below :

Budget Head	Year I	Year II	Year III	Total (Rs.)
1. Equipment	1340000.00			1340000.00
2. Manpower	297600.00	297600.00	297600.00	892800.00
3. Travel	40000.00	40000.00	40000.00	120000.00
4. Consumables	150000.00	150000.00	140000.00	450000.00
5. Contingency	50000.00	50000.00	50000.00	150000.00
<b>Total (Rs.)</b>	<b>1887600.00</b>	<b>537600.00</b>	<b>527600.00</b>	<b>2952800.00</b>

**2.5 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:

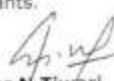
Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2012-2013
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Research & Development
3425.60.200.29.02	Bioresource and Environment Biotechnology
3425.60.200.29.02.35	Grants for creation of capital assets

The Recurring expenditure involved is debitable to:

Demand No. 87	Department of Biotechnology
3425	Other Scientific Research 2012-2013
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Research & Development
3425.60.200.29.02	Bioresource and Environment Biotechnology
3425.60.200.29.02.31	Grants in Aid General

#### 4. Terms & Conditions:


1. 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 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.
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6. The Registrar, Patna University, Patna, Bihar would be responsible for submission of Statements of Expenditure (S/E) and consolidated utilization certificates (U/Cs) to DBT from PIs in respect of grants released against this sanction order from time to time.
7. The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
8. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No. 102/IFD/SAN/5205/2012-2013 dated March, 07 2013.
9. This sanction order has been noted at serial no. 87 in the Register of Grants.

  
 Dr. Onkar N Tiwari  
 (Scientist 'C')

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, Patna University, New Administrative Building  
Patna University Main Campus, Patna - 800005, Bihar
- 3 Dr. Chaudhary Shu-fudding, Associate Professor, Post Graduate Department of Botany,  
Patna University, Ashok Rajpath, Patna - 800005, Bihar
- 4 Dr. Rajneesh Kumar, Associate Professor, Department of Chemistry, Patna University,  
Ashok Rajpath, Patna - Bihar
- 5 Prof. Ramesh Chandra Sinha, Chief Executive & Chairman, CENC, Department of Zoology,  
Patna University, Ashok Rajpath, Patna - 800005, Bihar
- 6 Cash Section, DBT (2 copies).
- 7 Sanction Folder.
- 8 File Copy.

  
Dr. Onkar N Tiwari  
(Scientist 'C')



2018-19  
Project

R. C. Sinha <rksinha41@gmail.com>

## Regarding meeting on GANGA PROJECT

Pranav Nagarnaik <p\_nagarnaik@neeri.res.in>

Mon, Nov 20, 2017 at 7:25 PM

To: rksinha41@gmail.com, psingh.civ@itbhu.ac.in

Cc: Rakesh Kumar <r\_kumar@neeri.res.in>, director@neeri.res.in, k\_khaimar@neeri.res.in

Dear Prof. Sinha and Prof. Singh,

We thank you for taking the time to discuss the project and for giving your valuable inputs. Your inputs and support would be highly beneficial towards the outcome of this project.

The sampling of the river is split in two stretches viz. First stretch from Gomukh to Haridwar and Second Stretch Bijnor to Bhagalpur. The key locations selected for the study in Second stretch are Bijnor, Kanpur, Allahabad, Varanasi, Patna and Bhagalpur. The chemical aspect with respect to contribution towards non putrefying property of River Ganga is divided in 6 components which were discussed and detailed out in the presentation which was shared this morning. We look forward to your support and collaboration on execution of this project.

As suggested by Rakesh sir in the meeting, we can finalize the terms of reference for the project. I am sure that the support and collaboration would go far beyond the ToR but as it is required I request you to send the ToR in terms of activities which would be carried out and a cost estimate. Following are some of the activities which can be collaborated on

- Water quality monitoring in the Second stretch for routine physico-chemical parameters, demand parameters and nutrients
- Support in carrying out detailed investigation on variation in Dissolved oxygen. Data collection, field experiments and lab experiments to identify factors and their values contributing towards changes in dissolved oxygen in the river
- Analysis of sediments in terms of composition and phase determination through techniques like XPS, XRF, TEM
- Laboratory and field Experiments to understand the water sediment interface
- Analysis of organic in water and sediment (LC-MS/MS analysis) from plant origin
- Support in collection of Health survey for risk assessment
- Support in collection of secondary health data from PHCs and hospitals
- Support in QA/QC activities.

All the field / lab experiments and analysis would be carried with an aim to understand their impact on the non-putrefying nature of River Ganga.

Director, NEERI has accorded approval for the sum of Rs. 20,00,000/- (Rs. 10,00,000 each for Patna University and IIT-BHU) from the project titled "Detailed study to understand the non-putrefying property of river Ganga in both water and sediment".







Best Regards,

Pranav

Dr. Pranav Nagarnaik

डॉ. प्रणव नगरनाईक

Scientist

वैज्ञानिक

Water Technology and Management Division

जल प्रौद्योगिकी एवं प्रबंधक प्रभाग

CSIR - National Environmental Engineering Research Institute

सीएसआईआर - राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान

NAGPUR - 440020, INDIA

नागपुर - ४४००२०, भारत

(M) +91 779 888 9056

**From:** k\_khairnar@neeri.res.in [mailto:k\_khairnar@neeri.res.in]

**Sent:** 17 November 2017 14:22

**To:** rcsinha41@gmail.com; psingh.civ@itbhu.ac.in

**Cc:** Pranav Nagarnaik; Sunil Kawale; Rakesh Kumar; director@neeri.res.in; k\_khairnar@neeri.res.in

**Subject:** Regarding meeting on GANGA PROJECT

Dear Prof. Sinha and Prof. Singh,

[Quoted text hidden]