# SCIENCE & TECHNOLOGY DEPARTMENT

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## Advertisement

Applications are invited through proper channel from Principal Investigators of Government Universities, Colleges, State funded Research Institutes and Research Institutes of Government of India functioning in Odisha for Research & Development Project in Biotechnology for the year 2019-20 by Science and Technology Department, Government of Odisha. Applications submitted directly by the applicant to the Science & Technology Department will not be entertained. The application duly filled in should be sent through the Head of the Institute.

Applications should reach the Director, Science & Technology, Science & Technology Department, Government of Odisha, Bhubaneswar-751001 on or before 31.10.2019.

Application received after due date will not be entertained.

For details advertisement, eligibility and mode of application log on to <u>http://st.odisha.gov.in/Advertisement/Advertisement.html</u>, <u>http://odisha.gov.in/addvertisement</u>

Khan 4r Director, Science & Technology

# GUIDELINES FOR FINANCIAL ASSISTANCE TO GOVERNMENT UNIVERSITIES, COLLEGES, STATE FUNDED RESEARCH INSTITUTES OF ODISHA AND RESEARCH INSTITUTES OF GOVERNMENT OF INDIA FUNCTIONING IN ODISHA TO SUPPORT RESEARCH & DEVELOPMENT PROJECTS IN THE IDENTIFIED AREAS OF BIOTECHNOLOGY



# **Biotechnology Cell**

Science & Technology Department Government of Odisha Bhubaneswar-751001

# GUIDELINES FOR FINANCIAL ASSISTANCE TO GOVERNMENT UNIVERSITIES, COLLEGES, STATE FUNDED RESEARCH INSTITUTES OF ODISHA AND RESEARCH INSTITUTES OF GOVERNMENT OF INDIA FUNCTIONING IN ODISHA TO SUPPORT RESEARCH & DEVELOPMENT PROJECTS IN THE IDENTIFIED AREAS OF BIOTECHNOLOGY

The Science & Technology Department, Government of Odisha strives to promote research in emerging areas of Biotechnology. The aim of the programme is to encourage Research and Development for the application of Biotechnology in Agriculture, Medicinal Science, Animal Science, Life Science, Aquaculture, Marine Science and Environmental Science. The guide-lines provide assistance for the preparation and submission of Project Proposals, the method of approval, mechanism of evaluation & monitoring and submission of utilization certificate.

#### 1. Objectives

The Universities, Colleges and Research Institutes on Science & Technology are the centres of research. Hence the University and College teachers and scientists of State funded Research Institutes need to be supported to meet their requirements of research in identified areas of Biotechnology.

#### 2. Eligibility/Target Group

The Science & Technology Department, Government of Odisha will provide support to permanent teachers of State Universities, Government Colleges and permanent scientists of state funded Research Institutes of Odisha and Research Institutes of Govt. of India functioning in Odisha. A person can avail only one research project (either as Principal Investigator/Co-Investigator/ Project Co-ordinator) of Science & Technology Department, Government of Odisha at any given time. The principal Investigator/Project Co-ordinator can apply for research project if she/he has five years of service. The S & T Department will also consider collaborative and multi-institutional research projects.

#### **3.** Advertisement inviting project proposals:

The Science & Technology Department, Government of Odisha will invite applications through advertisement in local newspapers and/or the website of the Department. The format of application and the guidelines are available in its website <u>www.orissa.gov.in/sciencetechnology</u>.

#### 4. **Procedure of application**

The Principal Investigator (or the Project Coordinator in case of multi-institutional projects) may submit twelve (12) copies of Project Proposal/application, with an electronic copy of the proposal on a CD in MS Word. The applications must be submitted through proper channel. The Proposal should be prepared and submitted strictly as per the recommended format. The proposal

must be very concise and should be printed on both sides of A4 size paper. The applications must reach by the last date. In order to save delay, one can submit an advance copy of the application, but the applicant has to ensure that the application through proper channel reaches the Department within two weeks.

#### 5. Tenure and Implementation

The tenure of the project will be for a maximum period of three years. The effective date of implementation will be from the date of release of funds.

#### 6. Nature of Assistance

Normally, the quantum of assistance for a research project will be under Rs. 10 Lakhs. The Science & Technology Department, Government of Odisha will not provide any grant under Institutional overhead. The Department will provide financial support for the items as follows:

#### (A) Non-Recurring Grants

- (i) Equipment: Essential equipments required for the project but not available in the Institution.
- (ii) Books and Journals: Essential Books and Journals required for the project.

The equipment as well as books and journals grants may be utilized to procure the essential equipments and books and journals needed for the proposed research work. The escalation, if any, in the cost of approved equipment may be met out of savings/re-appropriation from non-recurring head only with the approval of Principal/Registrar of the college/University under intimation to the commission.

The equipments and books & journals acquired by the Principal Investigator under a Major Research Project must be deposited to University/College/Institution or in the departmental library or the central library after the completion of the project which will be the institutional property. The University/College/Institution should make every effort to put all the equipment available in the laboratories in effective use.

#### (B) Recurring Grants

- Manpower-Project Fellow/Technical Assistant/Field Assistant (Emolument: Project Fellow: Rs. 12,000/- per month for first two years and Rs. 14,000/-p.m. for third/subsequent years; Technical Assistant/ Field Assistant: Rs. 5000/- per month.
- (ii) Hiring Services- Specialized technical work such as sample analysis.
- (iii) Contingency-Advertisement and selection of manpower, spares of apparatus, photocopies, typing, stationary, postage, computation and printing, audit fee needed for the project, etc.

- (iv) Chemicals and Consumables- To meet expenditure on chemicals, glassware and other consumable items.
- (v) Travel and Field work for data collection and collection of other information such as documents and visit to libraries (only inside the country, foreign travel is strictly prohibited in this scheme); the allocated fund should not be used for attending conferences, workshops, seminars or training program etc.

#### **7. Procedure for approval**

The proposals received, complete in all respect and duly forwarded by the Head of the Institution/Competent Authority will be assessed by a Sub-committee on R & D in Biotechnology. The applicants will be invited to give presentations to defend their proposals. No TA/DA would be paid to the participants. The final decision will be taken by the Science & Technology Department on the basis of the recommendations made by the Committee and availability of funds.

#### 8. Procedure for Release of Grants

- The grant will be released to the Registrar of the University/Principal of the College/Director or CEO of the Research Institute.
- (ii) The first instalment of the grant shall comprise of 100% of the Non-recurring grant and 50% of the total Recurring grant approved by the S&T Department.
- (iii) The second instalment will be released on the basis of recommendation of the expert Committee, progress report, submission of expenditure statement and utilization certificate. The second instalment of the grant shall comprise of 40% of the total Recurring grant approved by the S&T Department.
- (iv) The remaining 10% of the total Recurring grant approved by the S&T Department will be released after final presentation of the research findings before the subcommittee and on receipt of following documents for final reimbursement.
- (a) Five copies of the final report of the project along with soft copy
- (b) A consolidated Audited Utilization Certificate for the amount actually utilized towards the project duly signed and sealed by Government Internal Auditor/Chartered Accountant, Registrar/Principal/ Director or CEO of the Research Institute as well as the Principal Investigator/Project Coordinator in the prescribed proforma.
- (c) The unutilized grant if any may be refunded immediately through demand draft drawn in favour of the Secretary, State Council, Science & Technology Department, Government of Odisha, payable at Bhubaneswar.
- (d) Copy of the research publication of the results of the project in any accepted journal.
- (e) The Principal Investigators/Project Coordinators/ Institutions are expected to settle the accounts immediately on completion of the project. In case the balance grant is not claimed

within six months from the date of completion of the project, the same will lapse and no representation will be entertained on this behalf.

(f) It is mandatory to post the Executive Summary of the report, Research documents, Monographs, Academic papers provided under the Project on the website of the University/Institution/College.

#### 9. Evaluation and Monitoring

- After one and half year from the date of release of fund, the Science & Technology Department, Government of Odisha will organize a mid-term evaluation interface meeting wherein the Principal Investigator/Project Coordinators will present the progress of the project before the Sub-committee on R & D in Biotechnology.
- On completion of the project the Principal Investigator/ Project Co-ordinator, is required to present the findings of the project before the Sub-committee on R & D in Biotechnology.
- The progress of the Project will be also evaluated every year on site/in the S & T Department through Video Conferencing..

#### 10. Submission of Utilization Certificate and Expenditure Statement

The Principal Investigator/Institute would furnish to the Science & Technology Department the audited Utilization Certificate and Expenditure Statement in OGFR-7A duly signed by the Principal Investigator, the Head of the Institute and the Head of the Finance wing, pertaining to the grant at the end of the each financial year as well as consolidated statement of expenditure at the end of the project. The Principal Investigator/Institute would furnish an audited statement of expenditure to the Science and Technology Department.

#### 11. General

- (i) After the finalization of the selection procedure, the selected applicants will be informed.
- (ii) The Principal Investigator/Co-investigators/Project Coordinators must send their acceptance letter duly forwarded by their employer.
- (iii) Project is not transferable in any case.
- (iv) In the absence of the Principal Investigator, the Co-Investigator may act as the Principal Investigator.
- (v) If the Principal Investigator/Project Coordinator is transferred from her/his original place of work to another Institution, No objection certificate should be furnished for the transfer of the project from both the Institutions stating that necessary facilities will be provided by the Institution in which the awardee is transferred for smooth running of the project.

- (vi) In any research publication, from the outcome of the project the funding agency must be acknowledged.
- (vii) The Project Fellow engaged in the Project may enrol for M.Phil./Ph.D. The data generated and the results obtained out of the Project may be incorporated by the Project Fellow in her/his thesis with concurrence of the Principal Investigator.
- (viii) If the Principal Investigator/Project Coordinator fails to complete the Project, she/he has to refund the entire amount sanctioned with interest.
- (ix) The Department of Science & Technology reserves rights to reject any or all the research proposals without assigning any reasons thereof.

#### PROFORMA-I

#### PROFORMA FOR SUBMISSION OF RESEARCH AND DEVELOPMENT PROJECT IN THE IDENTIFIED AREAS OF BIOTECHNOLOGY (*To be filled by the applicant*)

#### **PART- I: GENERAL INFORMATION**

1.	Name of the Institute/University submitting the project proposal
2.	State
3.	Status of the Institute: State University/Government Colleges of Odisha/State funded Research Institute (Financial assistance for R & D projects will be provided to State Universities, Government Colleges and State funded Research Institutes carrying out Biotechnological Research)
4.	Name and designation of the Executive Authority of the Institute/ University
	forwarding the application
5.	Project Title
6.	Category of the Project: Research & Development
7.	Specific Area (Please see Annexure-I)
8.	Duration:
9.	Total Cost (Rs.)(Not to exceed Rs. 10 Lakhs)
10.	Project Summary (Not to exceed one page. Please use separate sheet)

# PART II: PARTICULARS OF INVESTIGATORS

1. Name of the Principal Investigator:	
Date of Birth:	Sex:
Designation:	
Department:	
Institute/University	
Address:	
PIN:	
Telephone:	Fax:
E-mail:	
No. of Projects being handled at present:	
<b>12.</b> Name of the Co-Investigator:	
Date of Birth:	Sex:
Designation:	
Department:	
Institute/University	
Address:	
PIN:	
Telephone:	Fax:
E-mail:	
No. of Projects being handled at present:	

### PART- III: TECHNICAL DETAILS OF PROJECT

(Under the following heads on separate sheets)

- 13. Introduction (Indicate justification for carrying out this Research)
- 13.1 Origin of the proposal
- 13.2 Definition of the problem (in National context and with special reference to the

State)

- 13.3 Objectives
- 14. Review of Current Status of research and development in the subject
- 14.1 International Status
- 14.2 National Status
- 14.3 Importance of the proposed project in the context of current status
- 14.4 Novelty of the project
- 14.5 Anticipated products & processes of practical/technology utility/socio-economic relevance expected to be evolved by pursuing the Project
- 14.6 Expertise available with the proposed investigating Group/Institution in the subject of the project.
- 14.7 List of 5 experts in India/Odisha in the proposed subject area

S1.	Name	Designation	Address/Telephone/E-mail
No.			

#### 15. Work Plan

- 15.1 Methodology
- 15.2 Risk associated with the research to be addressed
- 15.3 Proprietary/patented items, if any, expected to be used for this project
- 15.4 Linking of the research output with Industry to be explained
- 15.5 Suggested plan of action for utilization of research outcome expected from the project
- 15.6 Time schedule of activities giving milestones.

Sl.	Name of Milestone	Expected Start	Expected
No.		(Month/Year)	Completion

	(Month/Year)

# 15.7 Project Implementing Agency / Agencies

Sl. No.	Name of Agency	Address of Agency	Proposed Research Aspects	Proposed Amount	Cost Sharing %

# 15.8 Specific deliverables :

#### PART IV: BUDGET PARTICULARS

# 16. Budget (In Rupees) A. Non- Recurring ( e.g. equipments, accessories etc) Sl. No Item Year-1 Year-2 Year-3 Image: Ima

# Sub- Total (A)

#### **B.** Recurring

#### **B.1** Manpower (See guidelines at Annexure-II)

				-,			
	Sl.	Position	Consolidated Emolument	Year-1	Year-2	Year-3	Total
	No.	No.					
ľ							
ŀ							

#### Sub- Total (B.1) = B 2 Consumables

B.2 Cons	B.2 Consumables						
Sl. No.	Item	Quantity	Year-1	Year-2	Year-3	Total	
		2					

#### Sub- Total (B.2) =

Other items	Year-1	Year- 2	Year- 3	Total
B.3 Travel				
B.4 Contingency				
Sub total (B = B.1+ B.2+				
<b>B.3+B.4</b> )				
Grand Total				
(A+B)				

Note: Please give justification for each head and sub-head separately mentioned in the above table

#### Financial Year : April-March

In case of multi- institution project, the budget estimate to be given separately for each institution

# **PART -V: EXISTING FACILITIES**

17. Available equipment and accessories to be utilized for the project:

SI. No.	Name of equipment	Make	Model	Funding Agency	Year of procurement

#### PART -VI: DECLARATION / CERTIFICATION

It is certified that

- a) The research work proposed in the scheme/ project does not in any way duplicate the work already done or being carried out elsewhere on the subject.
- b) The same project has not been submitted by the Investigator(s) to any other agency/agencies for financial Support.
- c) The emoluments for the manpower proposed are admissible as per the Department of Science & Technology guidelines (Annexure-II)
- d) Necessary provision for the scheme/project will be made in the Institute/ University / State budget in anticipation of the sanction of the scheme / project.
- e) If the project involves the utilization of genetically engineered organism, it is agreed that we will ensure that an application will be submitted through our Institution Bio-safety Committee and we will declare that while conducting experiments the Bio-safety guidelines of Govt. of India would be followed in toto.
- f) If the project involves field trials/ experiments/exchange of specimens etc. we will ensure that ethical clearances would be taken from concerned ethical Committees /Competent authorities and the same would be conveyed to the funding agency before implementing the project.
- g) It is agreed that any research outcome or intellectual property right(s) arising out of the project shall be taken in accordance with the instructions issued with the approval of the Ministry of finance, Department of Expenditure, as contained in Annexure-IV.
- h) Necessary steps will be taken for publication of the research out puts of the project in accepted research journals.
- i) Wherever necessary, steps will be taken for tie up with industry for developing products and/or processes.
- j) I/We agree to accept the terms and conditions as enclosed in Annexure- III. The same is signed and enclosed.
- k) The Institute /University agrees that the equipment, other basic facilities and such other administrative facilities, as per terms and conditions of the grant, will be extended to investigator(s) throughout the duration of the project.
- 1) The Institute assumes to undertake the financial and other management responsibilities of the project.

Signature of Principal Investigator

Signature of Co- Investigator

Signature of Project Coordinator (applicable only for multi-institutional project) Date: Signature of Executive Authority of the Institute/University with seal

#### PART - VII: PROFORMA FOR BIODATA OF PROJECT COORDINATEOR/ PRINCIPAL INVESTGATOR/ CO-INVESTIGATORS \*\*\*\*\*

Name:

.....

Designation: .....

Department/ Institute / University: .....

Education (Post Graduation onwards & Professional Career)

Sl.	Board/University	Degree Awarded	Year	Award/ Prize/ Certificate
No.				

Research Experience in various institutions (if necessary, attach separate sheets)

Publications (Numbers only): -----

Books: -----

Research Papers, Reports: -----

General articles: -----

Patents: -----

Others (Please specify): ------

List of important publications relevant to the proposed area of work.

Sl. No.	Title of Paper	Authors	Reference of Journal	Year of Publication

Project(s) Submitted / being pursed / carried out by Investigator

Sl.	Title of Project	Funding Agency	Duration		No. of	Total Approved
No.			From	То	Scientists/	Cost of the
					Associates	Project (in Rs.)
					Working under	
					the Project	

Highlights of progress of the project (s) to date (in 200 words) for ongoing project only (if necessary attach separate sheets)

Place:

#### **Signature of Investigator**

Date:

#### Annexure-I

#### List of Subject Areas for the Consideration of the Project Proposal

- 1. Food grain crops
- 2. Horticulture (Vegetable)
- 3. Horticulture (Fruit)
- 4. Medicinal Plants
- 5. Poultry
- 6. Pisciculture
- 7. Cattle
- 8. Marine Resources
- 9. Biomass high yielding species
- 10. Other microorganisms from hot springs and mining areas etc.
- 11. Medical Biotechnology
- 12. Any other Priority areas as per the requirement of the State.

#### Illustrative list of Subject Areas for the Consideration of the Project Proposal

#### 1. AGRICULTURE & ALLED AREAS

- 1.1 Field Crop
- 1.2 Horticulture & Plantation Crop
- 1.3 Forestry Species, Fuel Fodder, Biomass
- 1.4 Plant Molecular Biology
- 1.5 Biological Control of plant pests, Diseases and Weeds
- 1.6 Bio-fertilizer
- 1.7 Medicinal and Aromatic Plant
- 1.8 Seri-Biotechnology / Sericulture- host plants
- 1.9 Tissue Culture Plants
- 1.10 Biodiversity Conservation & Bio-prospecting
- 1.11 Any other (Please specify)
- 2. MEDICAL SCIENCE & ALLIED AREAS
  - 2.1 Neurosciences & Neurobiology
  - 2.2 Infections Diseases of Humans
  - 2.3 Non-Infection Diseases of Humans
  - 2.4 Immunobiology
  - 2.5 Human Genetics/ Genome Analysis
  - 2.6 Bio-Medical Instrumentation
  - 2.7 Therapeutics & Posology
  - 2.8 Vaccines & Diagnostics
  - 2.9 Any other (Please specify)
- 3. ANNIMAL AND LIFE SCIENCE
  - 3.1 Breeding, Embryo transfer and areas
  - 3.2 Genetic enhancement, transgenic
  - 3.3 Diognostics & Vaccines (improved & recombinant)
  - 3.4 Zoon tic diseases
  - 3.5 Immunobiology
  - 3.6 Feed and Nutrition
  - 3.7 Any other (Please specify)
- 4. AQUACULTURE & MARINE SCIENCE
  - 4.1 Breeding, Embryo transfer and related areas
  - 4.2 Feed, nutrition, probiotics
  - 4.3 Culture, hatchery technologies in new and non-traditional species
  - 4.4 Vaccines, immunostimulants, diagnostics.
  - 4.5 Genomics, genes of interest
  - 4.6 Frontline Demonstration, Rural development

- 4.7 Marine species other than Fish
- 4.8 Marine Microbiology/ Flora & fauna
- 4.9 Extremophilic Organisms
- 4.10 Genomics genes of interest
- 4.11 Any other (Please specify)

# 5. INDUSTRIAL APPLICATIONS & ENVIRONMENTAL SCIENCE

- 5.1 Microbiology/ Strain Improvement.
- 5.2 Industrial Products/ Bio-Process Optimization & scale-up.
- 5.3 Biogeo-technology/ Biodegradation/ Bio-leaching.
- 5.4 Theoretical Mathematical modeling of Industrial processes.
- 5.5 Biotechnology Park
- 5.6 Plant Biodiversity
- 5.7 Microbial Biodiversity
- 5.8 Pollution Management
- 5.9 Bioremediation
- 5.10 A forestation & Conservation
- 5.11 Any other (Please specify)

#### GUIDELINES ON QUALIFICATION, MODE OF SELECTION & EMOLUMENTS FOR RESEARCH PERSONNEL PARTICIPATING IN R & D PROJECT

#### 1. Qualification

- (A) **Project Fellow**: Post-Graduate Degree in any branch of Life Sciences with minimum 55% marks
- (B) Technical Assistant/Field Assistant: Graduate Degree in any branch of Life Sciences with minimum 55% marks. Only one Technical Assistant/ Field Assistant per project is allowed.

#### 2. Mode of Selection

The selection of the Project Fellow may be made by an open selection through a duly constituted Selection Committee. The constitution of Selection Committee will be as under:

- i. Head of the Department will act as the Chairperson
- ii. One Subject Expert (External) (from the institute other that the Institute where the project is undertaken)
- iii. One nominee of the Vice-Chancellor/Head of Institution/Principal (in case of College)
- iv. Principal Investigator
- v. Co-Investigator (if any)

#### 3. Emoluments

- (A) Project Fellow: Rs. 12,000/- (Per month fixed), for a period of two years and Rs. 14,000/- p.m. for the third/subsequent years.
- (B) Technical Assistant/Field Assistant: Rs. 5000/- (per month fixed)

#### Annexure-III

#### TERMS AND CONDITIONS OF THE GRANT

#### (To be signed and enclosed with the proforma)

- 1. Approval of the Research proposal and grant released would be for the specific Project Mentioned in paras I to V of this proposal be exclusively spent on the Project for which it had been sanctioned within the stipulated time. The Institute is not permitted to seek or utilize funds from any other organization (Government, Semi Government, Autonomous or Private) for his research project. Any unspent part of amount would be surrendered to the Govt. of Odisha through an account payee demand draft drawn in favour of the "Drawing and Disbursing Officer, Secretary, State Council on Science & Technology, Science & Technology Department", and carry forward of funds of the next financial year for utilization. For the same project may be considered only with the specific approval of the Science & Technology Department.
- 2. For permanent /Semi-permanent assets acquired solely or mainly out of the grant, an audited record in the form of a register in the prescribed proforma (enclosed at Appendix-'A') shall be maintained by the Institute. The term "assets" means Equipments. The grant will not be utilized for construction of any immoveable Property, full facilities by way of accommodation, etc,. for the project will be given by the Institute.
- All the assets acquired from the grant will be the property of Government of Odisha and should not without the prior sanction of the Secretary, State Council on Science & Technology / Science & Technology Department", be disposed of or encumbered or utilized for purpose other than those for which has been sanctioned.
- 4. At the conclusion of the project, the Government of Odisha will be free to sell or Otherwise dispose of assets which are the property of the Government. The Institute shall render to Govt. necessary facilities for arranging the sale / disposal of these assets Government may however, consider the request of host institution to retain the assets created under project for carrying out similar work for the promotion of Science.
- 5. The implementing Institute / PI/Co-PI in absence of PI will furnish progress report of work on the project every year. The progress of the project will also be reviewed / monitored at least once a year by the concerned Committee etc. In addition the S&T Department shall designate Scientists / Specialists to visit the Institute periodically for reviewing the progress of work and for suggesting such measures so as to ensure early realization of the objectives of the project. On completion of the project, five copies of consolidated report of the work done on the subject would be submitted to the Science & Technology Department.
- 6. The Institute is required to send to SCIENCE & TECHNOLOGY DEPARTMENT a list of assets referred to at Sl. No. 2 above at the end of each financial year as well as at the time of seeking further installments of the grant.
- 7. The Principal Investigator/Institute would furnish to the Science & Technology Department the audited Utilization Certificate and Expenditure Statement (Copy enclosed at Appendix- 'B', & 'C') and in OGFR 7A (Appendix 'D') duly signed by the P.I. the Head of the Institute and the Head of the Finance wing, pertaining to the grant at the end of the each financial year as well as consolidated statement of expenditure at the end of the project. The Principal Investigator/Institute would furnish an audited statement of expenditure to Science & Technology Department.
- 8. A stamped money receipt be sent to the Science & Technology Department on receipt of the Cheque / Demand draft towards each release.

- 9. The Accountant General, Odisha at his discretion shall have the right of access to the books and accounts of the Institute for the grant received from the Government.
- 10. The Institute would maintain separate audited account for the project. If it is found expedient to keep a part or whole of the grant in a bank account earning interest, the interest thus earned should be reported to the Science & Technology Department.
- 11. Sale proceeds, if any as a result of the development of the project arising directly from funds granted by the Science & Technology Department shall be reported to the Government of Odisha. The Government of Odisha may at its discretion allow a portion of such receipt to be retained by the Institute for its utilization for the project activities.
- Investigators / Institutes wishing to publish papers based on the research work done under Science & Technology Department project should acknowledge the financial support received from the Science & Technology Department.
- 13. Investigators / Institutes shall follow the detailed instructions on technology transfer and Intellectual Property Rights (IPR) as given at Annexure-IV.
- 14. Investigators / Institutes may file patents with the help of the Biotechnology Cell Established at Science & Technology Department on priority bases. The format may be seen at Annexure-V.
- 15. The Government of Odisha (Science & Technology Department) will have the right to call for drawings, specifications and other data necessary to enable the transfer of know how to other parties and the Institute shall supply all the needed information at the request of the Science & Technology Department which will ensure confidentiality. The information required for commercializing Biotechnologies may be furnished to this Department as per the format enclosed at Annexure-VI.
- 16. The Institute may not entrust the implementation of the work for which the grant is being sanctioned to another Institution and divert the grant receipts as assistance to the latter Institution. However, in such situations the express permission of SCIENCE & TECHNOLOGY DEPARTMENT may be obtained. In case the Grantee is not in a position to execute or complete the project, it may be required to refund forthwith to the Government of Odisha (Science & Technology Department) the entire amount of grant received by it.
- 17. The human resources that may be engaged for the project by the Institute are not to be treated as employees of the Government of Odisha and deployment of such human resource at the time of completion or termination of project, will not be the concern / responsibility of the Government of Odisha. The organization may make reservations for Scheduled Castes, Scheduled Tribes etc. in the human resources to be engaged for the project in accordance with the instruction issued by Govt. of Odisha from time to time.
- 18. The Science & Technology Department reserves the right to terminate the grant at any stage also to recover the amounts already paid it is convinced that the grant has not been properly utilized for the work on the project and the money spent till the date of this / release and shall also arrange to refund the unspent balance, if any.
- 19. The project will become operative with effect from the data of release of the first installment for the project.
- 20. If the Investigator to whom a grant for a project has been sanctioned leaves the Institution where the project is being implemented, he shall submit five copies of complete and detailed report of the work done by him pm the project and the money spent till the date of his / her release and shall also arrange to refund the unspent balance, if any.
- 21. The organization should maintain subsidiary accounts of the Government of Odisha grant and furnish it to the Audit Officer as and when the recurring and non-recurring expenditure exceeds the limits of Rs. 5.00 lakhs.

**Signature of Project Coordinator Institute** (applicable only for multi-Institutional project) Date: Signature of Executive Authority of University with seal

**Signature of Principal Investigator** Date:

Signature of Co-Investigator

Signature of Co-Investigator

Date:

Date:

#### Annexure-IV

#### Instruction for Technology and Intellectual Property Rights

With a view to encourage the institution to file patent applications their innovations. Motivate them to transfer their technologies for commercialization and facilitate to reward their inventions, the following instructions are issued.

- 1. In these instruction :
  - (a) **"Institution" means** any technical, scientific academe establishment where research work is carried out through funding by the Central / Stat Government.
  - (b) **"intellectual Property Rights"** include patents, registered designs, copyright and layout design of integrated circuits.
  - (c) "Inventor" means an employee of the institution whose duties involve carrying out of scientific or technical research.
- 2. Scope: These instructions apply to those institution receiving funds for research projects from the S & T Department .
- 3. Inventions by institution: Institution shall be encouraged to seek protection of Intellectual property Rights (IPR) to the results of research through R&D projects While the patent may be taken in the name (s) of inventor(s), the institution shall ensure that the patent is assigned to it. The institution shall get its name entered in the Register of patents as the proprietor of the patent. The institution shall take necessary steps for commercial exploitation of the patent on exclusive/ non-exclusive basis. The institution is permitted to retain the benefits and earnings arising out of the IPR. However, the institution may determine the share of the inventor(s) shall be limited to 1/3<sup>rd</sup> of the actual earnings.
- 4. Inventions by institution and industrial concerns: IPR generated through joint research by institution(s) and industrial concern(s) through joint efforts can be owned jointly by them as may be mutually agreed to by them through a written agreement. The Institution and industrial concern may transfer the technology to a child party for commercialization on exclusive?" on- exclusive basis. The third party, exclusively, licensed to market the innovation in India, must manufacture the product in India. The joint owners may determine the share of the inventor(s) and other persons from such actual earnings. Such share(s) shall not exceed 1/3<sup>rd</sup> of the actual earnings.
- 5. **Patent Facilitating Fund:** The institution shall set apart not less than 25 percent of such earning for crediting into a fund called Patent Facilitating Fund. This fund shall be utilized by the institution for updating the innovation, for filing new patent applications, protecting their rights against infringement, for creating awareness and building competency on IPR and related issues.
- 6. **Information:** The Government shall submit information relating to the details of the patents obtained, the benefits and earnings arising out of IPR and the turnover of the products periodically to the Department/ Ministry, which has provided funds.
- 7. **Royalty-free license:** The Government shall have a royalty-free license for the use of the intellectual property for the purpose of the Government of India.
- **8. Review:** These instructions shall be reviewed by the State Government after a period of five years.

# Annexure-V

#### Patent Facilitation Form Proforma for filing of patents in Biotechnology

Part-A
Title of Invention :
Name of the Inventor :
Address :
Telephone :Fax : E-mail : Whether the invention is made out of SCIENCE & TECHNOLOGY DEPARTMENT funded project (Yes/No)
If Yes, Sanction letter No Date
Subject area:
If No, When and Where the invention was developed
b) Sponsoring organization / agency
5. Description of the invention (indicating prior art and the highlights of the invention)
6. Present stage of development (including scale of operation /production, validation, quality etc)
7. Utility of your invention.
8. Present national and international knowledge on the utility of this invention.
9. Present status of patenting on this invention (patent and literature search)
10. Novelty, non-obviousness, inventive step and utility of this invention, with brief justification.
11. Country of filing patent and Justification for the same.
<ol> <li>Have you approached any other institution for patenting this invention ? (If yes, provide details and outcome).</li> </ol>
Part- B
1. Objectives of your invention.
2 Detailed description of the invention (should be accompanied with drawing)

2. Detailed description of the invention (should be accompanied with drawing) (diagrams, if any, duly labeled and correlated with the description )

3. Existing state of art.

- 4. Drawbacks in the existing state of art.
- 5. How these drawbacks have been overcome by your invention
- 6. Name of the inventor(s) with contact phone number(s)

#### Part – C

**Declaration :** I/we certify and declare that all the information provided in parts A & B is true and correct to the best of my / our knowledge and belief.

Name of the Investigators	Signatures
1.	
2.	
3.	
Date :	Place :

# *Note* : *Fifteen copies of the documents with above details are to be submitted to the SCIENCE & TECHNOLOGY DEPARTMENT, Govt. of Odisha at the following address :*

Director, Biotechnology Science & Technology Department Government of Odisha.

#### Annexure -VI

#### Information required for commercializing Indigenously developed Biotechnologies

- 1. Name Title of the Product/ Process developed:
  - i. Product (s):
  - ii. Process (es):
- 2. Name & address of the investigator (s) (with telephone No./ Fax No./ E-mail No. etc )
- 3. Brief description of process / product indicating specific use (indicate with flow diagram / circuit diagram etc. wherever applicable) indicating the salient features of the invention.
- 4. Background information on the developments in the field, *viz.* technology alternatives in India & abroad (literature survey in brief indicating India and foreign groups active in the area).
- 5. Level of production technology (i.e. lab level, pilot plant level etc.) and validation date, if any.
- 6. Specification of the products whenever applicable.
- 7. Main Raw Materials, chemicals and components used in production product/Development of process, and sourcing of the relevant equipment/ machinery from India /abroad.
- 8. What contribution in technology/economic benefits the product/process is expected make.
- 9. Any further development work required on the product/process? If so, briefly described.
- 10. Market information on the existing products/processes relevant to the invention.
- 11. Advantage of the product/ process in terms of technical superiority and cost effective.
- 12. Work done on prototype fabrication :
  - (a) Has any prototype been prepared? If so, the number of prototypes already
  - (b) Has the prototype been operated successfully?
  - (c) Have you a set of drawings for making prototypes ?
- 13. Is the product/process an import substitute or is developed for the first time?
- 14. Safety & pollution aspects of the product/process.
- 15. Name and addresses of entrepreneurs who may be willing to acquire this technology
- 16. Have you contacted any entrepreneurs ? If so, Please provide the details.
- 17. Terms & conditions for technology transfer. Please indicate the extent of sum and royalties that your institute is contemplating.
- 18. Any other information (relevant to technology transfer) may be provided.

I / We certify and declare that the information provided is true and correct to the best of my / our knowledge, belief and abilities.

Date : .....
Place : .....

Signature of the inventor (s)

# Assets acquired wholly or substantially out of Government grants Register to be maintained by Grantee Institution

Name of the sanctioning Authority 1. Sl. No
2. Name of Grantee Institution
3. No. & Date of Sanction Order
4. Amount of the Sanctioned Grant
5. Brief purpose of the grant
6. Whether any condition regarding the right of ownership of Govt. in the property or other assets acquired out of the grant was incorporated in
7. Particulars of assets actually credited or acquired
8. Value of the assets as on
9. Purpose for which utilized at present
10. Encumbered or not
11. Reasons of encumbered
12. Disposed of or not
13. Reasons of authority, if any, for disposal
14. Amount realized on disposal
15. Remarks

# (PROJECT INVESTIGATOR)

# (FINANCE OFFICER)

# (HEAD OF THE INSTITUTE)

#### **Appendix-B**

#### UTILISATION CERTIFICATE

- 1. Title of the project/scheme
- 2. Name of the Organization:
- 3. Principal Investigator:
- Science & Technology Development sanction order No. & date of sanctioning of the Project:
- Amount brought forward from the previous financial year quoting SCIENCE &TECHNOLOGY DEPARTMENT letter No. & date in which the authority to carry forward the said amount was given:
- 6. Amount received from SCIENCE & TECHNOLOGY DEPARTMENT during the financial year (please give No. and dates of sanction orders showing the amount paid)
- Other receipt/interest earned if any, on SCIENCE & TECHNOLOGY DEPARTMENT grants:
- Total amount that was available for expenditure during the financial year (Sl. No. 5,6 &7)
- 9. Actual expenditure (excluding commitments) incurred during the financial year (Statement of Expenditure is enclosed)
- 10. Unspent balance refunded, if any (please give details of cheque No. etc.)
- 11. Balance amount available at the end of the financial year
- 12. Amount allowed to be carried forward to the next financial year vide letter No. & date.
- Certified that the amount Rs.-----mentioned against Col. 9 has been utilized on the project/scheme for the purpose for which it was sanctioned, that the balance of Rs-----remaining unutilised at the end of the year has been surrendered to Govt. (Vide No.-----dated------)/ will be adjusted towards the grants in aid payable during the next year.
- 2. Certified that I have satisfied myself that the conditions in which that grants-in-aid was sanctioned have been duly fulfilled / are being fulfilled and that I have exercised the following checks to see that the money was actually utilised for the purpose for which it was sanctioned.

Kinds of checks exercised:

1.

2.

# (PROJECT INVESTIGATOR)

# (FINANCE OFFICER)

# (HEAD OF THE INSTITUTE)

# Appendix-C

# Statement of Expenditure referred to in Para 9 of the Utilisation Certificate

Showing grants received from the Science & Technology Department and the expenditure incurred during the period from 1<sup>st</sup> April ------to 31<sup>st</sup> March------

Item	Unspen t balance carried forwar d from previou s year	Grants received from S & T Departme nt during the year	Other receipts/int erest earned if any, on the S & T Departmen ts grant	Total Col (2+3+4 )	Expenditure (excluding Commitmen t) Incurred during the year	Balanc e (5-6)	Remar k
1	2	3	4	5	6	7	8
1.	Nonrecu	rring					
	(i)	Equipment					
2.	Recurrin	ring					
	(i)	Human resource					
	(ii)	Consumabl	es				
	(iii)	Travel					
	(iv)	Contingenc	у				
	(v)	Any other ( (if applicab	1	erest on the	e Grants receive	d)	

# (PROJECT INVESTIGATOR)

# (FINANCE OFFICER)

# (HEAD OF THE INSTITUTE)

#### Appendix-D

#### FORM O.G.F.R.-7 (A) (See Rule 172)

#### FORM OF UTILISATION CERTIFICATE FOR THE YEAR 20

I hereby certify that the grant at my disposal/at the disposal of-----, in the year 20----and the amount available for expenditure during the said year were as follows :

1.	(a) Ur	nspent balance at the end of the year 20 :
	(b) Gr	rant received during the year 20 :
		TOTAL :
2.	(a) Ex	spenditure during the year 20 :
	(i)	Out of the unspent balance as in (a) above :
	(ii)	Out of grant referred to in (b) above :
		TOTAL :
	(b) Un	spent balance at the end of the year :

3. I further certify that the expenditure of Rs.-----(Rupees------) only shown as expenditure in the year 20------ under my charge within the jurisdiction and a sum of Rs-----(Rs.-----(Rs.-------) only shown as balance at the end of theyear 20------ and no part has been diverted to other purpose.

Signature of the Principal Investigator

Signature of Finance Officer of the Institute with seal

Signature of the Head of the Institute with seal