



**Invitation for proposals from MSEs/Innovators for working in the Common Research and Technology Development Hub (CRTDH) established at CSIR-Centre for Cellular and Molecular Biology, Hyderabad**

**AIMS AND OBJECTIVES**

Innovation is the key for successful entrepreneurship. However, there are challenges in bringing innovative ideas to the markets. There are Start ups/MSEs with innovative ideas that may face difficulties in translation in to a marketable product/ process due to lack of an ecosystem for innovation including the sophisticated testing facilities, equipment/ infrastructure, intellectual support etc.

The Common Research and Technology Development Hubs (CRTDHs) have been established by the Department of Scientific and Industrial Research (DSIR) with an objective to foster industry-institution interaction and address the above problems faced in translational research by the MSEs thereby providing an eco-system for research and innovation in the country. The hub would provide technical support, infrastructure and sophisticated analytical as well advanced research equipment facility to the MSEs for carrying out competitive technological research to translate new ideas into marketable products as well as utilize the already developed technologies available in the CSIR laboratories for taking them to market.

Three such hubs have been established under the scheme, two at CSIR-CCMB, Hyderabad and CSIR-IHBT, Palampur in the sector of Affordable Healthcare and the third at CSIR-NIIST, Thiruvanthapuram in the sector of Environmental Interventions. **The CRTDHs are National Facilities operated on a non-commercial cost-plus basis for the benefit of MSEs as well as startups/innovators.**

**Focus Areas of DSIR-CRTDH-CCMB, Hyderabad**

The DSIR-CRTDH-CCMB has been set up in the area of 'Affordable Health' to carry out quality R&D in frontier areas of healthcare for diagnostics and biopharmaceuticals for cancer, eye diseases, infectious diseases etc. with the aim for development of diagnostic kits, bio-pharmaceuticals and medical devices.

**Facilities available at CRTDH-CCMB**

The DSIR funded Common Research & Technology Development Hub (CRTDH) is housed in the CCMB-Annexe-II (Medical Biotechnology Complex) at Uppal Road, Hyderabad on the 4<sup>th</sup> floor. In addition, the building houses the Clinical Research Facility (CRF) on the 1<sup>st</sup> & 2<sup>nd</sup> floor and the DST-USV-CCMB Nanotechnology Laboratory for Biomedical applications on the 3<sup>rd</sup> floor.



The CRTDH has come up as a completely air-conditioned facility of about 10,000 sqft area with portable benchtops and following sophisticated instruments (already installed and functional) in addition to basic amenities:

1. Super speed centrifuge
2. Sorvall Lynx 6000
3. SU8 Station
4. (Photo lithography)
5. Micro fluidic controllers
6. Stereomicroscope with Camera
7. [Syris High speed Camera (microscope system)]
8. Class 1000 soft capsule (Eco soft wall clean room)
9. HPLC (Agilent Infinity 1260 Bio-inert Quaternary LC system)
10. Multi Mode Reader

In addition, the following sophisticated equipment at CCMB campus are available for usage by the MSEs on case to case basis:

FACS (Fluorescence Activated Cell Sorter)	TEM (Transmission Electron Microscope)
LSM 510 Meta NLO (Confocal Microscope)	NMR (Nuclear magnetic resonance)
DLS (Dynamic light scattering)	AUC (Analytical Ultra Centrifuge)
FTIR (Fourier transform infrared spectroscopy)	CD (Circular Dichroism)
Differential Scanning Calorimeter, VPDS	Isothermal Calorimeter, ITC200
Dynamic Light Scattering, Horiba	Beckman Ultracentrifuge
Mass Spectrometers	Leica SP8 Confocal Microscope
Atomic Force Microscope	HPLC
Thermal Cyclers(PCR)	MIDI Microbial System
Protein Purification System	Fluorimeter

The following Research facilities at CCMB campus are also available for usage by the MSEs on case to case basis:

Proteomics Facility	DNA Microarray
Transgenic Gene Knockout Facility	Laboratory Animal
Automated DNA Sequencing	Zebrafish Laboratory
Bioinformatics	Advanced Microscopy and Imaging
Spectroscopy	Automated Karyotyping
Cryo-transmission Electron	Drosophila Facility (Fly Lab)
Microscopy and Scanning Electron	
Microscopy	X-ray Facility



### Working models

**a. Flexible/ Virtual Model:**

The MSEs/Innovators may plan to work on their innovations themselves or opt for virtual presence through technical support from the professionals at CCMB. The equipment/facilities can be used by themselves or seek necessary help from Scientists of CCMB in consultation with the principal investigator for the DSIR-CCMB-CRTDH project. In this model, Intellectual Property remain with the MSEs/ Innovator. The patent cost will be borne by the company.

**b. Licensing Model:**

MSEs/Innovators having some idea but not confident of taking forward their ideas may explore licencing of innovative/ patented technologies developed by CCMB. These can be further developed into marketable products based on the experience and assessment of MSEs/Innovators.

CCMB-CRTDH would provide technical support, infrastructure and equipment usage to MSEs. The Intellectual Property remains with CCMB on the patented technologies. Whereas any new development/ improvement of existing technology, the IP will be co-shared and also the expenditure in filing the patent.

**c. The Joint Venture Model:**

Two or more MSEs can agree to pool their resources for the purpose of development of a new product/process/service. CRTDH will provide R&D support to MSEs for developing innovative products and to build confidence, strengthening and competitiveness by extending technical assistance. The IP will be jointly shared by the MSEs and CCMB for joint development of the product/ process.

### **How to Apply?**

Proposals from MSEs/startups/innovators are invited by DSIR-CRTDH-CCMB as per the enclosed Application Proforma. The filled proforma can be submitted anytime during the year to CSIR-CCMB. The proposals shall be considered by a Management Committee (MC) constituted under the scheme. Only the proposals approved by the MC shall be allowed access to the facility and undertake project work on the agreed terms and conditions for development of innovative products and processes.

### **Charges for carrying out development work at DSIR -CRTDH-CCMB**

The charges for carrying out development work shall comprise of only direct expenses



towards the following:-

- a) Cost of manpower of CSIR staff deployed and temporary project staff deployed.
- b) Cost of consumables/raw-material components.
- c) Cost of physical inputs/services/utilities.
- d) Equipment usage cost.
- e) Contingencies including extra payment envisaged e.g. for hiring infrastructure facilities, experts, computer time, information etc.
- f) Others (if any)



# **PROFORMA FOR PROPOSAL FOR UTILIZATION OF COMMON RESEARCH & TECHNOLOGY DEVELOPMENT HUB (CRTDH)**

## **I. The Company Profile**

1. Name and Address/Phone number of the Applicant/Company:
2. Company's Legal Status:
3. Name of Principal Investigator (PI):
4. Name of the MD/CEO/CTO
5. Educational Qualification and experience of PI:
6. Annual Turnover of the company (preferably last 3 years, to be supported with Annual Report)
7. Team & Expertise available:
8. Present activities of the applicant and R&D, if any

## **II. Technology/Product/ service details**

1. Project title:
2. Status of the work already carried out by the PI such as:
  - a. Proposed products / services
  - b. Technology already developed and tested
  - c. Technology demonstrated at pilot scale
  - d. Patents filed
  - e. Technology certification received
  - f. Market survey and business plan completed
  - a. Consumers/ users feedback received, if any

### **3. Technology/Products/ required**

- i. Description of the product/technology/service required from CCMB/CRTDH
- ii. Innovation merit and uniqueness of the technology/product:
- iii. Category of technology/innovation (specify process/product/new Application):
- iv. If the idea involves use of existing intellectual property, give details of the owner and arrangements of sourcing the innovation and terms of its commercialization:
- v. Project summary giving broad details of the activities to be undertaken, action plan, major milestones/timelines, patenting of Innovation and expected duration of completion etc.
- vi. Please comment on the environment and safety aspects of the project / product:

### **4. Any such products available in the market:**

#### **b. Market survey demand-supply, marketing strategy**

## **III. Proposed Modalities of Engagement:**

- 1. License patent/technology of CCMB/CSIR and product development**
- 2. Product development, based IP of the company (if any), with intellectual participation by CCMB**
- 3. Co-development of product/service/technology with CCMB Scientist**
- 4.. List of facilities available at DSIR-CRTDH-CCMB proposed to be used under your project: (leave blank if not known)**
- 5.. List of facilities available at CCMB campus proposed to be used under your project: (leave blank if not known)**
- 6.. End Product/Outcomes/Deliverables:**
- 7.. Any other information that you wish to share with us to help us in judging your proposal.**



**IV. Declaration:**

I/we declare that all the statements made in this application are true, complete and correct to the best of my/our knowledge and belief. In the event of any information, found false or incorrect, my/our candidature will stand cancelled and all my/our claims will be forfeited.

Place:

Date:

(Signature of the applicant)



**Terms & Conditions to be agreed upon by MSEs/Startups/Innovators/industry for undertaking project work and usage of facilities under DSIR-CCMB-CRTDH**

1. The MSEs/innovators shall acknowledge the utilisation of DSIR-CCMB-CRTDH facility on the package of products developed under the programme and marketed.
2. The marketed product packaging will clearly state that the CCMB and DSIR will not be responsible for the quality and efficiency of the goods and that the sole responsibility of the product rests with the MSE/ Innovators with respect to quality and efficiency.
3. In case of any dispute arising out of the scope of work in terms of physical targets, the decision of Director CCMB shall be binding upon by MSE.
4. CRTDH will in no way be responsible and/or undertake any liability that may arise on account of any manpower that may be engaged/deployed for work by MSME.
5. All the project related activities of MSEs will be open to the Management Committee and DSIR Officials for monitoring and inspection. Concerned officers of DSIR may visit the CRTDH for ascertaining the progress of work and attempt to resolve any difficulties that might be encountered in the course of implementation.
6. The MSE/Innovator shall maintain separate project experimentation records that shall be available for review by the Management Committee members.
7. The assets/equipment acquired by MSEs and brought to the CRTDH facility shall need the approval of Director, CCMB.
8. DSIR/CCMB will not have any liability towards the manpower appointed by the MSMEs working in the CRTDH for implementation of the project.
9. DSIR/CCMB will have no responsibility in case of any loss is caused to any life or property due to accident, fire or any other reasons. The participating MSEs working in the CRTDH are bound to adopt the safety measures put in place by CCMB to safeguard human life and property of CRTDH.
10. DSIR/CCMB will have no liability on account of any omission or commission of regulatory/statutory requirement by participating MSEs/innovators and their companies.



**11. MONITORING:**

The project work of MSEs will be periodically monitored by MC constituted by DSIR.

**12. DISPUTES:**

The DSIR, MoST does not own any responsibility for disputes arising out of IPR issues, however, the rules and regulations of CSIR shall apply and Director CCMB is empowered to take a view as deemed fit.

**13. MONITORING OF PROGRESS:**

The progress of the approved project taken up by MSEs shall be periodically reviewed by the Management Committee.

**14. TERMINATION OF THE PROJECT:**

The MSEs/Innovators and CRTDH can terminate the project with prior notice at any stage on mutually agreed terms and conditions..

**15. ARBITRATION:**

Any dispute arising during the course of the project shall be referred to the sole arbitrator appointed by Director, CCMB and the arbitration proceedings shall take place under the "Indian Arbitration Act, 1940"

**16. REGULATORY APPROVALS:**

All the regulatory and statutory approvals for the product/process development and for marketing should be taken by the MSE/Innovator. DSIR and CSIR/CCMB shall not hold any responsibility for delay and denial of approvals.



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**UNDERTAKING OF THE INNOVATOR/ MSE/ INDUSTRY**

I / We agree to the above terms and conditions in connection with usage of facilities and undertaking work in the DSIR-CRTDH-CCMB facility for our project concerning

“ \_\_\_\_\_ ”

Name :

Signature

Designation and :

Thumb Impression

Organization

(If representing the organization)