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## MEMORANDUM OF UNDERSTANDING (MoU)

between

Accreate Additive Labs Private Limited,  
NO. 22, Akshaya, 1<sup>st</sup> floor, 4<sup>th</sup> Main road,  
Mahalakshmi Layout,  
Bangalore 560 086

(hereinafter referred to as Accreate Labs)

**And**

Yenepoya (Deemed to be University),  
University road, Deralakatte,  
Mangalore 575 018

(hereinafter referred to as Yenepoya)

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 **ATTESTED**

**Dr. Gangadhara Somayaji K S**  
Registrar  
Yenepoya (Deemed to be University)  
University Road, Deralakatte  
Mangalore 575 018, Karnataka.

# Memorandum of Understanding (MoU)

## 1. PURPOSE OF MoU

This Memorandum of Understanding (MoU) is made and executed on 15<sup>th</sup> November 2018 between Yenepoya and Accreate Labs for achieving the objectives of joint collaborative activities. WHEREAS Yenepoya and Accreate Labs are desirous of entering into MoU between them in which Yenepoya and Accreate Labs will work together to establish a closer working relationship between the two organisations in healthcare field. This MoU identifies the areas of strong cooperation and outlines a mechanism for reviewing the progress made.

## 2. AREAS OF COOPERATION

Yenepoya and Accreate Labs have identified the following areas of initial interest: -

- **Leverage emerging technologies** such as bioprinting and 3D printing combined with electronics to do simulations. 3D printed human body parts will be developed for pre-surgery planning of complex procedures including cardiac and vascular diseases, oncology, orthopaedics, neurology, dermatology etc.
- **Patient's body part and pathology 3D printing** - using 3D printing as a part of the consulting process for complex surgeries would benefit patients and the institution. Patients would pay for these services and benefit from the superior evidence which leads to better procedure related decisions and quicker recovery.
- **Add surgical procedures as the next capability in the Advanced Comprehensive Clinical Training & Simulation Centre - Yen (ACTS YEN) centre** – to retain leadership acquired in simulating
- **Applied and clinical research** - Bioprinting would be used to develop skin, cartilage, bone that can be further used in academic and clinical areas. 3D printed body parts will be utilized as an educational model for graduate students.
- **Next generation smart prosthetics** – Yenepoya would participate in the field trials for issue of free prosthetics to needy patients and subsequent emerge as a leading prosthetics centre in the region.

## 3. DURATION AND EFFECTIVE DATE OF MoU

ATTESTED  


**Dr. Gangadhara Somayaji K S**  
Registrar  
Yenepoya (Deemed to be University)  
University Road, Deralakatte  
Mangalore 575 018, Karnataka.



The total period for the engagement would be for a period of five years effective from the date of signing of the MoU between the two parties. Where this MoU continues to be active, the parties agree to review it with a view to extending its terms.

#### 4. RESOURCES AND PLANS

It is envisaged that multiple sources of investment/revenue would be sought to support the activities under this MoU. The following are the pre-identified plans:

- Kick-off bioprinting as a research activity
- Establish efficacy of 3D printing and simulation in one area
- Development of anatomically accurate educational models
- Development of 3D printed cadaver parts for skill training workshops
- Apply research grant for advanced prosthetic centre from Technology Interventions for Disabled & Elderly (TIDE, Gov. of India body) under elderly and disabled enablement grant.
- Apply Biotechnology Industry Research Assistance Council (BIRAC) based grants for setting up high-end bioprinting centre of excellence with focus on cancer, burns, trauma.

#### 5. FINANCIAL ARRANGEMENT

Each party shall mutually contribute the funds for the implementation of projects of mutual interest. In addition, each party acknowledges that any financial arrangement shall be negotiated and provided depends on the availability of funds.

#### 6. AMENDMENTS TO MoU

This MoU and subsequent agreements that are to be annexed shall have written endorsement signatures of the authorised representatives of both the parties.

#### 7. TERMINATION OF MoU

This MoU can be terminated at any time by either party by mutual written agreement or in any event three month written notice from either party to the other for any/no reason.

#### 8. OUTCOMES AND RESULTS

Return on Investment (ROI): Both short term and long term benefits are seen from this engagement. The ROI by type of engagement is estimated below -

- Patient body part/system 3D printing for pre-surgery evidence, shall produce new revenue and around 20% to 30% growth in next FIVE years.

- Bioprinting as an academic research activity and shall provide research outcomes in tissue engineering on PAR with global medical institutions
- Anatomical models for academics – PG, UG, and dental higher effectiveness in education.
- Medium and long-term revenue stream from royalties and a continuous stream of direct revenue to Yenepoya from 3D printed patient body part modelling.
- Considerable inflow of revenue from research grants jointly to both parties
- Laudable academic and clinical research - pioneering academic and clinical research in cutting edge areas such as bioprinting and tissue engineering saving lives and making lives better for innumerable patients.

## 9. INTELLECTUAL PROPERTY RIGHTS AND PUBLICATIONS

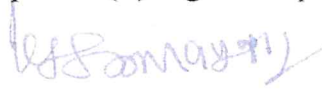
Both parties agree to share the intellectual properties rights and research publications, and any remuneration from the intellectual property shall be shared mutually with both parties based on the level of contribution.

## 10. CONFIDENTIALITY AND NON-DISCLOSURE


Both parties shall keep the data from the research works in confidential. Representatives identified by each party shall handle and have access to the data. Wherever appropriate the parties shall sign the non disclosure agreement and the data shall not be shared with any other third party without prior written permission.

## 11. COMMUNICATION

The parties shall give all the notices and communication between the parties in writing by (i) in person (ii) registered post and courier and (iii) E-mail and fax to the party's address.

  
 For and on behalf of Yenepoya  
 Registrar  
 Yenepoya (Deemed to be University),  
 University road, Deralakatte,  
 Mangalore 575018

Witness: Ruhha P.O  
 Date: 14.11.2018

  
 For and on behalf of Accreate Labs  
 Director  
 Accreate Additive Labs Private Limited,  
 NO. 22, Akshaya, 1<sup>st</sup> floor, 4<sup>th</sup> Main road,  
 Mahalakhsmi Layout, Bangalore 56008

Witness: Sankar Manoj S  
 Date: 14 NOV 2018

  
 REGISTERED