

കേരളം KERALA

CE 661290

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is entered into this 7th day May 2019 by and between

THE ICAR-CENTRAL MARINE FISHERIES RESEARCH INSTITUTE, a national institution under the Government of India, Indian Council of Agricultural Research whose primary mandates are research and development on marine finfish farming, biotechnology and biodiversity having its registered office at Post Box No. 1603, Ernakulam North P.O. Ernakulam 682 018 (herein after referred to as "CMFRI") and represented by its Director

And

YENEPOYA, a Deemed to be University, whose primary mandates are 1) Education, 2) Research and development, 3) Outreach activities. The research activity focuses on stem cells and regenerative biology, translation of biotechnology, systems and computational biology. The University has its registered office at University Road, Deralakatte, Mangalore 575018, Karnataka (herein after referred to as "YU") and represented by its Registrar

Herein after individually referred to as a "Party" and collectively as the "Parties"

WHEREAS, the Parties will collaborate in the manner described in the following ARTICLES.

ATTESTED

Dr. Gangadhara Somayaji.K.S. Registrar Yenepoya/Deemed to be University University Road, Deralakatte Mangalore- 575 018, Karnataka



डॉ. ए.गोपालकृष्णन Dr. A. Gopalakrishnan निदेशक / Director केंद्रीय समुद्री मत्स्यिकी अनुसंधान संस्थान Central Marine Fisheries Research Institute को. सं. सं. 1603 / P. B. No. 1603 ए. के. ए. रो. को. / Ernakulam North P.O. कोची - 682 018

NO. 1666 DATE 9.4.19 VALUE OF RS. 100 SOLD TO Director CMFRI

M.A. KUNJU BEEVI HIGH COURT VENDOR

Kochi

Registrar Yenepoya (Deemed to be University) University Road, Deralakatte Mangalore - 575 018



ARTICLE I INTRODUCTION

- ICAR-CMFRI and YU agree to enter into a joint collaboration for biological research on various diseases including cancer especially for developing and optimizing therapeutics against cancer stem cells which epitomize the highly drug-resistant phenotypes in cancer.
- This Memorandum of Understanding (“MOU”) sets out below the principles by the ICAR-CMFRI and YU can establish a formal agreement regarding such activity.

ARTICLE II FIELDS OF COMPETENCE

CMFRI is a leading marine fisheries research Institute in India with expertise in several branches of sciences, such as mariculture, biotechnology, marine natural products, medicinal chemistry backed up by world class analytical services and equipment for automated chemistry. CMFRI is working in the frontier area of bioactive molecule discovery from marine organisms as promising therapeutic agents against various diseases, food chemistry, aquatic food product technology, and development of high value products as dietary supplements and health management. The libraries of specialized bioactive compounds from marine organisms with anti-diabetic, anti-inflammatory, anti-hypothyroidism, anti-hypertensive and anti-dyslipidemic potential developed by this institute compose an abundant resource for future bioactivity research and will provide promising therapeutic leads against various human ailments.

YU is one of the premier deemed to be University in India with expertise in several branches of medical fields. Yenepoya Research Centre (YRC) of YU is an upcoming research centre that was established in 2008. YRC was initially established to serve as a central research support system for the constituent colleges. YRC has state-of-the-art facilities to support high quality research in the areas of Biotechnology, Regenerative biology, Systems and computational biology which are interdisciplinary/multidisciplinary areas to meet the contemporary challenges. The research work in YRC is primarily funded with extramurally received funds from various agencies of the Government of India, as well as, YU’s intramural funding. Stem cell and regenerative medicine centre (SCRM) is a division under YRC having that undertakes specialized research work in the area of regenerative and cancer stem cell biology.

ARTICLE III PRINCIPLES

The activities covered by this MOU will centre on the following:

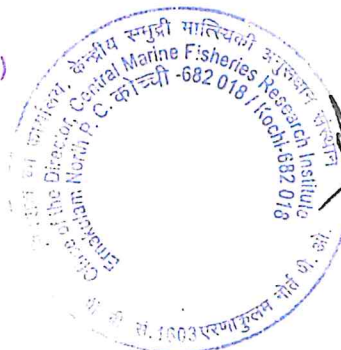
- To develop newer, targeted delivery systems, cancer stem cell (CSC) and other pharmacological properties of targeting molecules by CMFRI.
- Isolation, maintenance, propagation of cancer stem cells by YU.
- Exchange of materials and cell lines between the CMFRI and YU can be initiated only after signing of Material transfer agreement (MTA).

ATTACHED

Dr. Gangadhara Somayaji K.S.
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Yenepoya (Deemed to be University)
University Road, Derlakatte
Mangalore- 575 018, Karnataka

Gangadhara Somayaji K.S.

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Central Marine Fisheries Research Institute
पो. पी. सं. 1603 / P. B. No. 1603
ए. ए. नो. पी. ओ. / Ernakulam North P.O.
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- To conduct biological testing of the new chemical entities, pharmacophores and delivery systems synthesized or developed by CMFRI in YU.
- For the flow of research there will be exchange of students between the parties.
- Output of the results will be shared in the form of joint-co-authored research publications. The exchange of publications and other materials (related to publications and reports) is of common interest. For publication with equal participation the first authorship and corresponding authorship will be shared by both the institutes.
- All reports to be sent for publication arising out of the joint research will bear names of all the investigators from both the institutions who have directly participated in the study.
- Any activity carried out within the broad framework of this MOU shall be the subject to the mutual consent of parties, taking into account any constraints of time, funding and other relevant resources.
- It is recognized that the work carried out jointly through the collaboration will require special intellectual property protection. Legal agreements defining joint technology development will need to be implemented and will need to recognize the nature of the collaboration.
- For the entire duration of the 'Joint Collaboration' the partners undertake to seek each other's consent for the publication of any results arising from the research carried out by the Parties. This consent may only be withheld where justified.
- In case of IP generated out of the outcome of the joint research, it must be first patented by either of the parties before they go into its publication.
- If the outcome of the collaboration studies yields encouraging results useful to society or industry then, it can be pursued for attracting external funding from Govt./Pvt. agencies for advancement of the developed technology/process and for such purpose a joint research proposal can be submitted for extramural funding.
- The intellectual property rights arising out of the programme shall be the common property between the two organizations. CMFRI shall file the joint patent application, whereas the cost for patent application and maintenance will be equally shared by the parties, whereas and all the necessary support like the persons who have directly contributed to the intellectual property generation shall be mentioned as inventors by CMFRI and YU.
- The sharing of intellectual property among the two organizations shall be in the ratio of 50:50.
- The expenditure connected with securing and maintaining the Intellectual Property Rights shall be shared equally in the above said ratio by CMFRI and YU.
- The sharing of revenues, in case if it is licensed / commercialized shall be shared in the above said ratio between the two Institutes, namely 50:50 (CMFRI and YU).
- The pharmacophores and delivery systems provided by CSIR-IICT if found active in biological testing in CSCs and other pharmacological models, will also be tested in advanced animal models in YU after obtaining appropriate clearances from the Animal Ethics Committee.
- In addition, it is envisaged that each activity, that the parties wish to pursue in accordance with the purpose of this MOU will be governed by terms and conditions to be separately negotiated and mutually agreed upon by the parties through the signing of one or more subsidiary agreements.

ATTESTED

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Mangalore- 575 016, Karnataka

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G. Somayaji

Registrar
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Mangalore- 575 016

ARTICLE IV
ASSISTANCE, COOPERATION AND GOOD FAITH OF THE PARTIES

The Parties acknowledge that the attainment of the Objectives is dependent upon the joint efforts of all parties through mutual trust and confidence and conducted in good faith. In this regard, the Parties shall endeavor to make available to the other such assistance as may be reasonably necessary, as they mutually determine, to attain the Objectives.

ARTICLE V
CONFIDENTIALITY; PROPRIETARY BRANDING

- A Party in receipt of Confidential Information from the other Party must not use or disclose the other Party's Confidential Information without that other Party's prior written consent other than (i) for the purposes of carrying out this MOU, provided any disclosure is only to such of the receiving party's personnel or to its related company and its personnel who need to know and who are made subject to the confidentiality requirements of this MOU or (ii) as required by law.
- Neither Party may make any public announcement in relation to this MOU without first obtaining the approval of the Other Party.
- Confidential information means (i) the terms of this MOU and (ii) all information (in whatever form) disclosed by one Party to the other, whether before or after the date of this MOU but excludes information which (x) is or becomes public knowledge other than through a breach of this MOU (y) the recipient can show to the discloser to have been in the recipient's lawful possession prior to disclosure or (z) the recipient can show to the discloser to have been lawfully received from a third party not obliged to keep that information confidential.
- Each Party shall not use any name, logo, trade name, trademark, service mark or other symbol associated with the other Party without the prior written consent of the other Party.

ARTICLE VI
NON-EXCLUSIVITY, RENEWAL, AMENDMENT AND TERMINATION

- This MOU does not intent to create an exclusive relationship between the parties in the field of research that parties intend to engage.
- This MOU shall be effective for an initial period of 5 years from this date. Thereafter, this MOU may be extended for further periods of 5 years or for any other period of time as deemed appropriate by both parties, subject to their mutual consent any such extension to be made in writing.
- Either Party may amend or vary this MOU at any time provided it is with the prior written consent of both Parties.
- Either Party may terminate this MOU at any time by giving six months notice to the other party in writing.

ATTESTED

Dr. Gangadhara Somayaji K.S.
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Mangalore- 575 018, Karnataka

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Registrar
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University Road, Deralakatta
Mangalore - 575 018

ARTICLE VII
CONFIDENTIALITY; PROPRIETARY BRANDING

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- Each Party shall not use any name, logo, trade name, trademark, service mark or other symbol associated with the other Party without the prior written consent of the other Party.

ARTICLE VIII
FUNDING

The expense for the research work will be supported by funds from CMFRI & YU and will be jointly shared between the Parties/or other extramural funding granted in future for the Research Plan mentioned in this MOU.

The manpower and resources are anticipated to be met from the project funding. Each Party will execute its responsibilities from the resources available from the project with each institute.

ARTICLE IX
GENERAL

- The parties to this MOU shall not be deemed to be in breach of this understanding or otherwise liable to any other party in any manner whatsoever for any failure or delay in performing or initiating the activities proposed in this MOU.
- This MOU records the understanding between the parties and is not intended to be a legally binding document and shall not be enforceable in any court of law.

ATTESTED

Dr. Gangadhara Somayaji K.S.
Registrar
Yenepoya (Deemed to be University)
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कोची - 682 018

IN WITNESS WHEREOF, the parties hereby affix their signatures on the date and place first above mentioned.

Signed by

Name: **Dr. A. GOPALAKRISHNAN**

Designation: **DIRECTOR**

Duly authorized to sign for an on behalf of:
CMFRI

Date: 07/05/2019



Signature

Dr. A. Gopalakrishnan
निदेशक / Director
केंद्रीय समुद्री यातियकी अनुसंधान संस्थान
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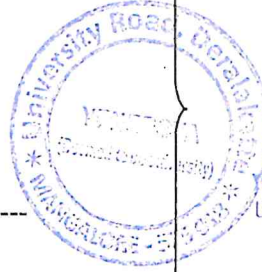
Signed by:

Name: **Dr. K.S. GANGADHARA SOMAYAJI**

Designation: **REGISTRAR**

Duly authorized to sign for and on behalf of:
YU

Date: 08/06/2019



Signature

Registrar
Yenepoya (Deemed to be University)
University Road, Deralakatte
Mangalore - 575 013

ATTESTED

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