



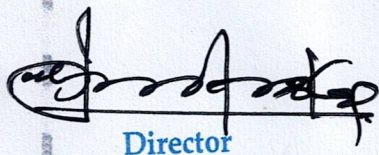
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24AA 100386

**A Memorandum of Understanding for Academic and Research Cooperation in the Field of Nanomaterials Mediated Regulation of Bacterial Pathogenesis**

This Memorandum of Understanding (hereinafter referred to as "MOU") is made and entered into on this 15th day of June 2025 By and Between:

**University of Malaya**, a university established under the laws of Malaysia and having registered address at Lembah Pantai, 50603 Kuala Lumpur, Malaysia is represented by its Executive Director of Nanotechnology and Catalysis Research Center (NANOCAT), Prof. Dr. Mohd Rafie Johan (hereinafter referred to as "UM"),

  
Director

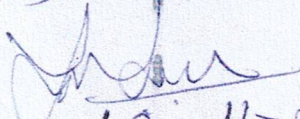
Amala Institute of Medical Sciences  
Amala Nagar, Thrissur - 680555



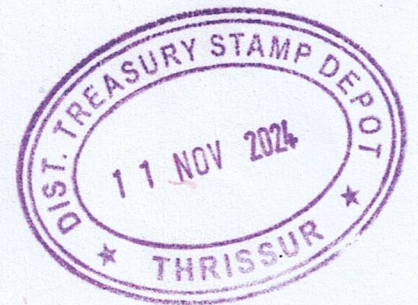
  
PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC  
Pengaruh Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
Pusat Kecemerlangan Pendidikan Tinggi (HiCoE)  
Universiti Malaya



No. 39055 Value 100/-

  
12-11-24  
No. 3 Dist. Court Vendo  
Leena Thekkekkara TCR

Amala Cancer hospital  
Amala Nagar





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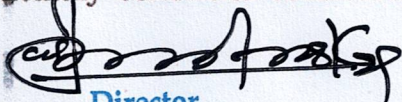
AND

**Amala Institute of Medical Sciences (an undertaking of Amala Cancer Hospital Society)** established under the laws of India and having an address at Amala Nagar, Thrissur, Kerala, India 680555 is represented by its Director, Fr. Julious Arakkal CMI, (hereinafter referred to as "AIMS") Both of whom are collectively known as the "Parties".

NOW THEREFORE PURSUANT THERETO, the Parties hereby agree as follows:

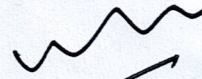
**1. PURPOSE**

The purpose of this Memorandum of Understanding is seeking to improve understanding between the respective academic institutions and to establish mutually beneficial collaborations benefiting their students and faculty.

  
Director

Amala Institute of Medical Sciences  
Amala Nagar, Thrissur - 680555

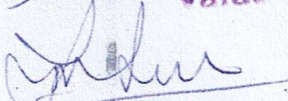




PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC  
Pengaruh Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
Pusat Kecemerlangan Pendidikan Tinggi (HiCoE)  
Universiti Malaya



No. 38056 Value 100/-

  
12-11-24

Amala Cancer Hospital Society  
Amala Nagar

No. 3 Dist. Court Vendor  
Leena Thekkekkara TGP



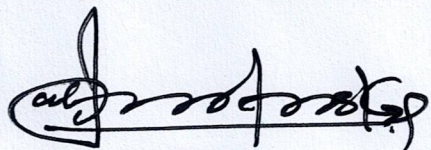
## 2. SCOPE AND FIELDS OF ACADEMIC COOPERATIONS

1. The Parties hereby agree to implement within the framework of the rules and regulations applicable in each of the institutions and subject to availability of funds and resources, the following programmes and activities (**Nanomaterials Mediated Regulation of Bacterial Pathogenesis**), which may include, but not limited to:

- a. Student and/or academic and administrative staff exchanges.
- b. Joint research activities.
- c. Exchange of publications and reports generated by the joint and collaborative efforts of both Parties and
- d. Sharing of other activities and programmes in areas of mutual interest, where sharing shall result in benefit to both Parties.

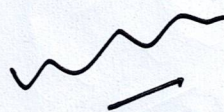
2. It is agreed that the terms and conditions of any agreed programme and activity contemplated in this MOU shall be the subject matter of separate written agreements to be negotiated and agreed upon by both Parties and/or any third parties, wherever applicable. Provided always the decision whether to initiate and/or implement any programme or activity shall be at the sole discretion of each Party.

3. The Parties agree to designate, a coordinator on behalf of each institution, whose responsibility will be to supervise the execution of this MOU and to draw up programmes or activities to be implemented under this MOU, setting out specific provisions concerning the exchange programmes, budget requirements and details of funding. For this purpose, the coordinator for UM is Prof. Ir. Ts. Dr. Lai Chin Wei , Nanotechnology and Catalyst Research Centre, and the coordinator for AIMS is Dr. Kayeen Vadakkan, Scientist -C, Senior Scientific Research Officer, Amala Integrated Medical Research Department, AIMS.



Director

Amala Institute of Medical Sciences  
Amala Nagar, Thrissur - 680555



PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC  
Pegarah Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
Pusat Kecemerlangan Pendidikan Tinggi (HiCoE)  
Universiti Malaya



### **3. FINANCIAL ARRANGEMENTS**

The Parties acknowledge that in the absence of any specific agreement in writing to the contrary, each Party will be responsible for its own costs and expenses in establishing and conducting programmes and activities contemplated under this MOU, including without limitation, travel and accommodation expenses.

### **4. JOINT PROPERTY**

1. The Parties agree that any intellectual property rights arising from or in connection with any programme or activity under this MOU, through and by the joint and collaborative efforts of both Parties shall be jointly owned and subject to any other terms and conditions as may be agreed upon in writing.

2. Both Parties shall acknowledge one another in any form of writing, publication or presentation based on research derived from the cooperative efforts of both Parties under this MOU, unless otherwise mutually agreed upon in writing by the Parties.

### **5. CONFIDENTIALITY**

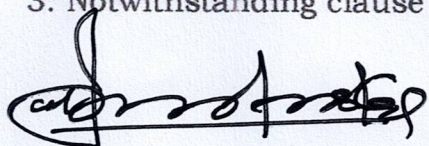
The Parties agree and undertake to keep confidential at all times any information or data that may be exchanged, acquired or shared in connection with any programme or activity conducted pursuant to this MOU, except where the same is already in public domain.

### **6. DURATION AND TERMINATION**

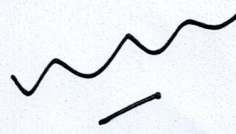
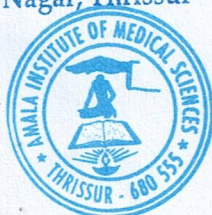
1. This MOU shall take effect on and from the date of execution of this MOU and shall continue to be effective for a period of 3 (three) years and may be extended for such further period as may be agreed by the Parties in writing.

2. Notwithstanding clause 6 (1) above, this MOU may be terminated by either Party giving written notice to the other at least six (6) months prior to the proposed date of termination.

3. Notwithstanding clause 6 (2) above, the provisions of this MOU or any



Director  
Amala Institute of Medical Sciences  
Amala Nagar, Thrissur - 680555



PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC  
Pengarah Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
Pusat Kecemerlangan Pendidikan Tinggi (HiCoE)  
Universiti Malaya



other written agreement in respect of any on-going exchange programme or any other form of cooperative activity under this MOU shall continue to apply until their completion unless both Parties mutually agree in writing to the earlier termination of the programme or cooperative activity.

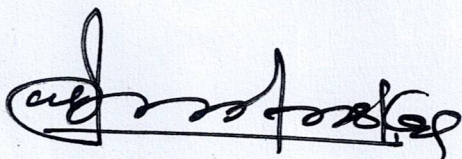
## **7. NOTICE**

Every notice, request or any other communication required or permitted to be given pursuant to this MOU shall be in writing (in English) and delivered personally or sent by registered or certified post via air mail or by courier or facsimile (which shall be acknowledged by the other Party) to the Parties at the address and facsimile number as stated below:

- a. If to UM : Nanotechnology and Catalysis Research Center (NANOCAT),  
3<sup>rd</sup> Floor, Block A,  
Institute for Advanced Studies Building,  
University Malaya, 50603 Kuala Lumpur, Malaysia  
Attention: Prof. Ir. Ts. Dr. Lai Chin Wei  
Email: cwlai@um.edu.my
- b. If to AIMS: Amala Integrated Medical Research Department  
Amala Institute of Medical Sciences Amala Nagar, Thrissur  
Kerala, India  
Attention: Dr. Kayeen Vadakkan  
E-mail: kayeenvadakkan@amalaims.org

## **8. MISCELLANEOUS**

1. This MOU may be modified, varied or amended at any time after due to consultation and with the written agreement of both Parties.
2. The Parties acknowledge that all visits or exchange of staff, students or administrators will be subject to compliance with the entry and visa regulations of Malaysia and India and with the respective Party's requirements with respect to staff and student visits.
3. Subject to clause 4, 5 and 6, this MOU is not intended to be legally binding. It merely expresses the intentions and understanding of the



**Director**  
**Amala Institute of Medical Sciences**  
**Amala Nagar, Thrissur - 680555**



**PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC\***  
Pengaruh Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
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Universiti Malaya

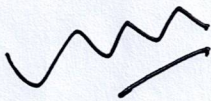
Parties which will form the basis of any legally binding agreement to be drafted and executed in the future.

4. The Parties hereby agree that they are not bound exclusively by this MOU and shall be at liberty to enter into any separate agreements or arrangements with any third party without reference to the other Party.

**IN WITNESS WHEREOF** the Parties have hereto caused this Agreement to be signed by their respective authorised representatives on the 15th day of June 2025.

SIGNED for and on behalf of

**UNIVERSITI MALAYA**

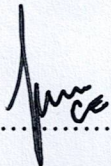


**PROF. DR. MOHD RAFIE BIN JOHAN**

Executive Director, NANOCAT

**PROFESOR DR. MOHD RAFIE JOHAN FASC, FRSC**  
Pengarah Eksekutif  
Pusat Penyelidikan Nanoteknologi & Pemangkinan (NANOCAT)  
Pusat Kecemerlangan Pendidikan Tinggi (HiCoE)  
Universiti Malaya

In the presence of:

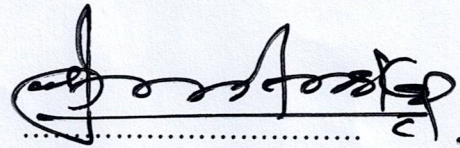


**PROF. IR. TS. DR. LAI CHIN WEI**

Unit Head of NANOCAT

SIGNED for and on behalf of

**AMALA INSTITUTE OF MEDICAL SCIENCES**



**FR. JULIOUS ARAKKAL CMI**

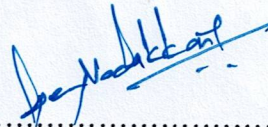
Director, AIMS

**Director**

Amala Institute of Medical Sciences  
Amala Nagar, Thrissur - 680555



In the presence of:



**DR. KAYEEN VADAKKAN**

Scientist C, AIMS