MEMORANDUM OF UNDERSTANDING BETWEEN EMORY UNIVERSITY AND JAMAL MOHAMED COLLEGE

This Memorandum of Understanding ("MOU") made effective as of October 1, 2022 ("Effective Date") is entered into between Emory University, by and through its School of Medicine, on behalf of its Emory Vaccine Center located in DeKalb County, Georgia, United States ("Emory") and Jamal Mohamed College located in the city of Tiruchirappalli, state of Tamil Nadu, India.

The Emory Vaccine Center (EVC: http://www.vaccines.emory.edu) was established in 1995 under the leadership of Dr. Rafi Ahmed as the first major academic center for vaccine research in the US. For the past 27 years, the EVC has emerged as a premiere research center with internationally renowned scientific programs encompassing the broad areas of the innate and adaptive immune systems of the vertebrates. Currently, there are more than 70 faculty members (Primary and Adjunct) at the EVC representing several departments at Emory University: Microbiology & Immunology, Pathology & Laboratory Medicine, Pediatrics, Medicine, Infectious Disease, Department of Global Health/Rollins School of Public Health. A major mission of the EVC is "To improve human health by conducting fundamental and clinical research leading to the development of effective vaccines against infectious and chronic diseases of global importance". To this end, the EVC faculty members are carrying out insightful and pioneering work on the molecular understanding of infectious diseases by the emerging/reemerging viral, parasitic and bacterial pathogens of global importance and the design of effective vaccines and immuno-therapeutics against these pathogens. Since its inception, the EVC has been very successful in obtaining extramural funding from federal, private, and industry sources for the research programs being carried out at the Center. In the effort, several multi-center collaborative programs with national and international research institutions have been forged in the past two decades. Recently during the COVID-19/SARS-CoV-2 pandemic, the EVC investigators have been at the forefront of providing insights into human immunity to SARS-CoV-2 infection and vaccination. It is of note that several clinical trials, including Moderna's mRNA vaccines, were conducted at Emory's Hope Clinic, a clinical arm of the EVC.

Jamal Mohamed College (JMC) was founded in 1951 as an affiliated college of the University of Madras and later to Bharathidasan University when it was formed in 1982 in the nearby campus. JMC is situated in the central part of Tamil Nadu, in the city of Tiruchirappalli. As a religious minority institution, its primary objective has been to provide higher education to the downtrodden and socially backward sections of the society in general and Muslim minority in particular. JMC is being administered by the Society of Jamal Mohamed College, located in a sprawling land area of 87 acres. Over the past 70+ years, JMC scaled the greater heights raising to the present status as a multi-discipline teaching/research institution with 25 Undergraduate and 20 Postgraduate programs. 19 departments of the college are functioning with the status of approved research centers. The college has the student body strength of around 12,000 across the campus in various departments. Currently, there are 145 government-aided teaching/research faculty, and the additional 357 faculty members are under the self-finance stream. With many milestone achievements, JMC has been marching towards fulfilling plans to establish robust vaccine research programs on campus.

PURPOSE

The purpose of the MOU is to establish a general framework for exchange of students and faculty
on research programs, within the field of Vaccine Research and Technology. For avoidance of
doubt, the parties agree that none of the visitors shall engage in clinical activities or patient
contact/care.

- Within fields that are mutually acceptable and subject to available funds, the following general forms of cooperation will be pursued:
 - a. Exchange of PhD and MSc students for laboratory research electives.
 - b. Appointment of faculty members and research staff as visiting scholars; and
 - c. Joint research activities and organization of joint research conferences.

PHD and POSTGRADUATE STUDENT EXCHANGE

- 3. A limited number of students from JMC may participate in laboratory research electives at Emory for periods of up to six months, as mutually agreed. Individuals considered for these experiences will be PhD or postgraduate MSc students who have completed at least a bachelor's degree in a related field. Such individuals shall be responsible for all personal travel expenses associated with their visits to Emory, and local hospitality (housing and meals) will be extended for the duration of stay. Each student visiting Emory will be supervised by an Emory faculty member. It is anticipated that the number of such students will be one or two annually. The parties will enter into an appropriate written agreement addressing such student exchange program.
- Both parties agree that they shall refrain from disclosing any student's educational records except
 with the student's consent or as permitted under the Family Educational Rights and Privacy Act
 and all regulations thereunder.

FACULTY EXCHANGE

For the purposes of the MOU, the party sending faculty shall be referred to as the "Home Institution," and the party receiving faculty shall be referred to as the "Host Institution."

Each institution shall nominate its own faculty for participation in faculty exchange activities but final admission into the receiving institution shall be determined by that institution. The participants or their Home Institutions shall be responsible for their own travel and living expenses during visits to the Host Institution. Faculty taking part in exchange activities at the Host Institution shall retain their appointments at their Home Institution and any appointments conferred at the Host Institution shall reflect their temporary visiting status.

The duration of each faculty exchange shall be flexible, ranging from seven (7) days and up to a month.

Scientific Project Manager, M. Abdul Jabbar, PhD will serve as the facilitator of the faculty exchange program at Emory, and his/her counterpart at JMC will serve as coordinator of the faculty exchange program at JMC. The coordinators at each institution will stay in close contact with each other.

The coordinators of the Program will exchange all relevant information concerning faculty orientation and campus guidelines, including such items as up-to-date university catalogues, housing information, etc.

Visiting faculty may be invited to give one or more lectures on their current research and/or a work-in progress seminar for faculty and students at the Host Institution, but there shall be no teaching or research conducted by visiting faculty. Visiting faculty shall also attend workshops, engage in networking, and discuss potential research collaboration with Emory faculty.

Visiting faculty will have full access to Host Institution's research facilities including libraries and computer facilities.

The parties are not required to send faculty in any single year. The parties will strive for reciprocity in the number of faculty exchanged.

Faculty will be required to comply with the Host Institution's policies regarding medical insurance.

Faculty must comply with the host country requirements regarding visas and residence permits.

FOR RESEARCH

6. Prior to submission of any joint grant applications to government or non-government funding sources, the parties will enter into an appropriate written agreement addressing allocation of responsibilities and contributions of investigator effort and other resources with respect to joint research activities. In participating in research and other activities in any foreign country under this MOU, each party and its representatives shall abide by the applicable laws and regulations of such foreign country and will respect the cultural, religious, and social customs of such foreign country to the extent such laws, regulations, and cultural, religious and social customs would not cause the party or its representatives to violate their obligations under this MOU, the policies of their home institution, or the laws of their home country or state.

INTELLECTUAL PROPERTY

7. Each party will retain ownership of any proprietary materials that it had invented, created, developed, or otherwise generated or acquired before commencement of the relationship governed by this MOU ("Pre-existing Materials"). No license or other permission to use any Pre-existing Materials is granted or implied by this MOU or any activities conducted hereunder, even if Pre-existing Materials are incorporated into or used in connection with any activities or projects conducted pursuant to this MOU.

The parties acknowledge that proprietary materials may be invented, created, developed, or otherwise generated or acquired in connection with the relationship and activities contemplated by this MOU. The parties agree that ownership of any such proprietary materials shall be governed and determined by applicable law. To the extent that applicable law would grant sole ownership of any such proprietary materials to a party to this MOU or to any individual employee or other representative of a party, all such rights are expressly reserved, and this MOU and any activities conducted hereunder shall not convey any ownership interests or any other rights in or to the proprietary materials in question to any other party. To the extent that applicable law would grant joint ownership of any such proprietary materials to two or more parties to this MOU or any of their individual employees or representatives, all such rights are expressly reserved, and this MOU and any activities conducted hereunder shall not convey any ownership interests or any other rights in or to the proprietary materials in question to any party that is not a joint owner and shall not waive or alter the rights of any joint owner.

The parties acknowledge that the activities of any other individual employees or other representatives shall be subject to the intellectual property policies of their respective institutions.

Proprietary materials may include but are not limited to inventions, trade secrets, techniques, research, data, data compilations, or copyrightable expression.

- Any manuscripts or other potential publications or distributions resulting from joint research
 carried out in the framework of the MOU must be reviewed and approved by Emory University
 and JMC before they are submitted to an outside party.
- Projects of co-edited works or any other project will be addressed in agreements which specify the obligations and the rights of the parties.

GENERAL

- 10. The Director of the Emory Vaccine Center and the Principal of Jamal Mohamed College and/or their appointed representatives shall be responsible for administering the activities conducted under this MOU subject to all required institutional approvals. In particular, such individuals shall be responsible for ensuring that such activities are conducted in compliance with all laws, regulations, ethical guidelines, and institutional policies applicable to these activities, including without limitation the obtaining of approval as necessary from the Emory University Institutional Review Board and the corresponding review board for Jamal Mohamed College in connection with research activities requiring such approval.
- 11. Each institution shall use its best efforts to make sure that any visiting faculty member and student carries adequate health insurance and not permit this coverage to lapse while the faculty member, or student is participating in an exchange program. Notwithstanding the foregoing, hospital and other medical expenses are the sole responsibility of the faculty member and students. Each individual participating in the program must purchase health insurance coverage (accident and sickness insurance) sufficient to meet minimum requirements of the Host Institution.
- 12. This MOU shall have a term of five (5) years from the Effective Date. It is understood that this MOU may be subject from time to time to revision or modification by mutual agreement. Furthermore, any party may terminate the MOU unilaterally with thirty (30) days prior written notice to the other party in whole or in part as deemed prudent by any party in its sole discretion. If the MOU is terminated neither party shall be liable to the other for any monetary or other losses that may result.
- 13. Each party agrees not to discriminate in administering this MOU and the programs provided for hereby on the basis of race, sex, age, national origin, color, religion, disability, or sexual orientation.
- 14. The parties represent, warrant, and agree that they have not taken, and will not take, any action related to or arising out of this MOU, which in any way violates, or aids or abets any violation of, the United States Foreign Corrupt Practices Act, or the applicable anti-corruption laws of India. Specifically, and not in limitation of the foregoing, the parties represent, warrant, and agree that they have not, and will not, in connection with this MOU, directly or indirectly request, give, offer or promise to give, or authorize another party to give any money or anything of value to any person (whether or not such person is a government official) for the purpose of inducing such person to improperly take or improperly omit to take any action in order to secure a business advantage.
- 15. Neither party to this MOU shall use any identifying marks of the other party or of any employee, student, or agent of the other party or any adaptation, acronym or name by which the other party is commonly known, for any purpose, including but not limited to advertising, promotional or

sales literature or in any publicity or publication or website, without the prior written review and approval of the authorized representative of the other party. Noncompliance with this clause may result in immediate termination of the MOU.

- 16. Nothing herein shall be construed to create an agency relationship between the parties. The parties are independent contractors and no legal relationship is intended by this MOU.
- 17. Any dispute arising under or related to this MOU shall be resolved, to the maximum possible extent, through good faith negotiations and settlement. Failing settlement, any dispute, controversy or claim arising out of or relating to this MOU or the breach, termination, enforcement, interpretation or validity thereof, including the determination of the scope or applicability of this MOU to arbitrate, shall be settled by binding arbitration and not a court of law, conducted in English at a mutually agreeable location under the rules of the International Chamber of Commerce. The arbitration hearing shall be commenced within ninety (90) days of the filing of a Demand for Arbitration by either party, and the award shall be rendered within thirty (30) days of the conclusion of such hearing. All disputes under this MOU shall be resolved and conducted, regardless of the means or authority, in the English language.
- 18. The English version of this MOU will govern. Activities at Georgia will be governed and interpreted by the laws of the State of Georgia, U.S.A., while activities in JMC will be governed and interpreted by the laws of the government of India. This MOU will be governed by the laws of the State of Georgia, U.S.A.
- 19. This MOU may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. The MOU is the sole agreement between the parties concerning the subject matter hereof and shall not be altered or amended except in writing duly executed by all parties.
- 20. If any section or provision of this MOU is held illegal, unenforceable or in conflict with any law by a court of competent jurisdiction, such Section or provision of this MOU shall be deemed severed from this MOU and the validity of the remainder of this MOU shall not be affected thereby.

[Signatures on the Following Page.]

IN WITNESS WHEREOF, the undersigned hereby execute this MOU as of the dates written below.

JAMAL MOHAMED COLLEGE

Dr. A.K. Khaja Nazeemudeen Secretary & Correspondent Jamal Mohamed College

Hajee, M.J. Jamal Mohamed Treasurer Jamal Mohamed College

Dr. S. Ismail Mohideen Principal Jamal Mohamed College EMORY UNIVERSITY

Vikas P Sukhatme Vikas P. Sukhatme, MD, ScD Dean, School of Medicine Emory University

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