RESEARCH SUB-AGREEMENT

THIS AGREEMENT	made as of this	day of	, 2015.
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BETWEEN:

THE UNIVERSITY OF MANITOBA (hereinafter referred to as the "UM"),

- and -

KING GEORGE'S MEDICAL UNIVERSITY (hereinafter referred to as the "KGMU"),

WHEREAS:

- A. Dr. Maryanne Crockett, an academic staff member of the UM in the Faculty of Health Sciences (hereinafter referred to as the "Principal Investigator") has certain expertise in maternal, neonatal and child health, and has received grant funding from The Bill &Melinda Gates Foundation ("the Foundation") for the implementation of a project entitled "Improved quality of community and low level facility management of childhood pneumonia and diarrhoea in Uttar Pradesh" (the "Project"), in accordance with a Grant Agreement between the UM and the Foundation (Grant No. OPP1084474) dated November 14, 2013 and amended October 30, 2014 (together the "Grant Agreement").
- B. KGMUhas certain expertise in this area and is interested in conducting a portion of the activities in the project mentioned above in accordance with the terms and conditions set out herein.

NOW WITNESSETH that the parties hereto agree and covenant as follows:

ARTICLE 1 - DEFINITIONS

- 1.1 "Background Intellectual Property" shall mean, individually and collectively, all Intellectual Property created, developed, produced or obtained by a party outside of the Project.
- 1.2 "Deliverables" shall be as set out in Schedule "A" attached hereto.
- 1.3 "Intellectual Property"shall mean all patents, trade-marks, industrial designs,

trade-names, copyright, trade secrets and other intellectual property rights whether registered or not owned by or licensed to a Party; all technical information, including know-how, show-how, inventions, processes, products, formulae, designs, records, biotechnology and genetic engineering products (including plant cultivars and germplasm) whether proprietary or not including without limitation any and all confidential information.

- 1.4 "Inventions" shall mean all discoveries and patents and patentable and unpatentable inventions and improvements and copyrights arising from the Project.
- "Research Results" shall mean all data and information created, produced, developed or derived in the performance of the Project pursuant to this Agreement and includes, but is not limited to, substances, technical information, data, reports, photographs, drawings, plans, specifications, models, prototypes, patterns, samples, software, designs, computer programs, and databases. Research Results shall not include: (i) Confidential Information disclosed to facilitate the Project; (ii) restatements of previously existing information by either KGMUor the University; or (iii) non-public methods, techniques, processes or computer codes utilized by the University for the conduct of the Project; or Inventions.
- 1.6 "Technical Information" shall mean all technical or scientific information including Inventions, produced by KGMU in the performance of the Project as hereinafter defined.

ARTICLE 2 - SCOPE

- 2.1 KGMU will undertake the work outlined in Schedule "A" attached hereto in accordance with the applicable terms and obligations in the Agreement.
- Given the nature of the activities contemplated, the UM acknowledges that KGMUhas made no representations nor undertakings as to the quality or nature of the research and development work undertaken nor that the subject of such work will be suitable or marketable for any particular purpose or uses, other than that such work will be performed in good faith and with reasonable efforts of those participating in accordance with the objects and spirit of this Agreement.
- 2.3 KGMUshall ensure that all required certifications are received prior to undertaking the work, including but not limited to, biohazards, animal care and human ethics and that it complies with all applicable federal and local laws, regulations and guidelines in undertaking the work.
- 2.4 KGMUacknowledges that the Project is funded by the Foundation and agrees to undertake the work pursuant to this Agreement and in compliance with and

subject to the relevant terms and conditions of the Grant Agreement attached hereto as Schedule "B" (the "Grant Agreement Conditions")"), including but not limited to the provisions therein related to Anti-terrorism and Anti-Bribery. KGMUfurther agrees that in its undertaking of the Project it will not do, omit to do, or permit to be done or omitted any action which would cause UM to be in breach of the obligations set out in the Grant Agreement. If there is any conflict between the Grant Agreement and this Agreement, the terms of the Grant Agreement shall govern.

ARTICLE 3 - FINANCES

- 3.1 Subject to payment under subsection 3.2 below, KGMUwill provide to the UM the Deliverables.
- 3.2 The amount UM shall pay to KGMU for the Project shall not exceed United States Dollars six hundred sixty-five thousand, three hundred and seventy-six(USD \$665,376), pursuant to the "Budget" attached as Schedule "C" hereto. Such funding is conditional upon the UM's receipt of funding from the Foundation. An initial advance of three months' budget will be remitted to KGMUonce the agreement is fully signed. An advance for the following three to six months will be made once satisfactory financial reporting is provided by KGMU to UM on the previous disbursement. Thereafter, disbursements will be by way of quarterly advances or semi-annual advances, subject to the satisfactory submission of financial reports. The UM, in its sole discretion, acting reasonably will determine whether the financial reports provided hereunder are satisfactory.
- 3.3 Total financial obligation of the UM under this Agreement is limited to the amount set out in subsection 3.2 which amount shall not be exceeded without the written authorization of the UM.

ARTICLE 4 - TERMINATION

- 4.1 This Agreement is effective as of the date first written above and will terminate on October 31, 2017, the anticipated completion date of the Project, unless such date is altered upon the mutual written agreement of the parties.
- 4.2 KGMUor UM may earlier terminate this Agreement thirty (30) days subsequent to receipt of written notice of intent to terminate from one to the other.
- 4.3 Notwithstanding the above, any party may terminate this Agreement by written notice of breach by another party, which breach is not rectified within thirty (30) days of written notice thereof. Breach shall be defined as a failure to comply with any provision of this Agreement and the documents incorporated herein.

- In the event this Agreement is terminated, the UM shall pay to KGMUall costs, compensable under Article 3, incurred to the effective date of termination, plus any additional costs mutually agreed upon in writing for relevant and documented expenses incurred by KGMUin connection with terminating the Project.
- In the event that the Foundation reduces or terminates funding to the UM for the Project, in whole or in part and for any reason, UM may terminate this Agreement to the same extent by notifying KGMUin writing. The conditions of the termination, including notice and allowability of costs for pre-existing obligations, shall be the same conditions as the conditions imposed upon UM by the Foundation.
- 4.6 Articles 3, 6.3, 8, 9 and 10 and clauses 4.4, 4.5, 4.6, 13.8 and 13.9 shall survive termination of this Agreement. The obligations of confidentiality under Article 7 shall continue for a period of five (5) years from the date of termination of this Agreement.

ARTICLE 5 - PROJECT MANAGEMENT

- 5.1 The UM shall have control, supervision and direction of the Project and shall be responsible for the manner in which the Project is performed.
- 5.2 The KGMU technical representative shall be Professor Rashmi Kumar, Professor& Head, Department of Pediatrics, or such other representative as is mutually agreeable. The UM's technical representative shall be Dr. Maryanne Crockett,an academic staff member of the UM, in the Faculty of Health Sciences, or such other representative as is mutually agreeable.

ARTICLE 6 - CONSULTATION, REPORTS AND RECORDS

- During the term of this Agreement, KGMU'stechnical representative and other representatives may have reasonable access to consult with the UM's Principal Investigator regarding the Project, personally, electronically, or by telephone.
- 6.2 KGMUshall provide the UM with the Deliverables as shown in Schedule A.
- 6.3 KGMUshall keep all records, information, databases, reports and all other documentation related to the Project and associated expenditures and costs for a period of six (6) years from the expiration or termination of this Agreement and shall allow the UM to have access to any records, information, databases, reports and other documentation for the purposes of audit and evaluation of the work undertaken pursuant to this Agreement, and for the verification of invoices with respect to payments made under this Agreement.

- 6.4 KGMU shall provide to the UM the following reports:
 - 6.4.1 Semi-annual narrative reports of KGMU's work on the project.
 - 6.4.2 Quarterly or semi-annual financial reports, following the line item format included in Schedule B, with the frequency based on the timing of accountable cash advances provided.

ARTICLE 7 - CONFIDENTIAL INFORMATION

- 7.1 KGMUand the UM may disclose technical, scientific, business or marketing information one to the other to facilitate work under this Agreement. Such information clearly marked as "Confidential", "Protected Business Information" or "Not for Publication" shall be safeguarded and not disclosed to anyone within KGMUor the UM without a "need to know," except with the prior written approval of the other party. Each party shall also protect such information which has been clearly marked from disclosure to third parties.
- 7.2 The obligation of confidentiality in 7.1 shall not apply to information which:
 - is already known to the Party to which it is disclosed, as evidenced by written records;
 - b) is now or shall enter the public domain other than by a breach of confidentiality obligations to the disclosing Party;
 - c) is lawfully obtained from third parties;
 - either party can demonstrate was developed by it independently of the information received from the disclosing party;
 - e) must necessarily be disclosed to regulatory agencies, or to clinicians or others in connection with such disclosures;
 - f) must necessarily be disclosed by either party to financial institutions or other funding sources in order to obtain financial assistance, provided that such entities agree to keep the information confidential;
 - g) must necessarily be disclosed by the UM or KGMUin order to file patent applications with respect to inventions hereunder;
 - h) is required by law to be disclosed;
 - i) is published or presented by or through the UM in learned journals or scientific forums, or as part of a thesis in accordance with Article 11.

- 7.3 The obligation of confidentiality shall not apply to professional expertise which either party has upon execution of this Agreement or which is further developed or enhanced as a result of performing work under this Agreement.
- 7.4 The parties warrant that they shall adhere to and comply with applicable laws and regulations regarding protection of personal and/or health information.

ARTICLE 8 - OWNERSHIP/LICENSES

- 8.1 The UM shall be promptly provided with and retain ownership of all Research Results as well as all original documents and materials used and developed during the course of the Project, including but not limited to maps, sketches, notes, reports, data, models and prototypes.
- 8.2 The title to any Background Intellectual Property already owned or controlled by a party, or that is developed, produced or obtained by a party outside of the scope of the Project shall not be affected by this Agreement.
- A party may use Background Intellectual Property already owned or controlled by another party, and which is disclosed as part of the Project, solely for the Project and the term of the Project. The use of the Background Intellectual Property by a party shall in no way affect the ownership of that Background Intellectual Property.
- 8.4 Should an Invention, whether patentable or not, result directly from the Project, KGMU will promptly notify the UM of such Invention. Inventorship and ownership shall be determined in accordance with patent law (if patentable) or by mutual agreement between the parties (if not patentable), taking into account the role of contributions of individuals with respect to the Invention. In the case of a joint Invention, the parties agree to negotiate, in good faith, a joint invention agreement on commercially reasonable terms, which shall provide, among other things, for Invention management responsibilities including appropriate sharing of expenses related to patenting and income resulting from licensing or other disposition of the Invention.KGMUhereby grants to the UM a non-exclusive, perpetual, royalty free, world wide right and license to use any Invention for any purpose.
- 8.5 Notwithstanding anything else herein, students involved in the Project shall retain copyright in their thesis and no delay or dissemination may be imposed.

ARTICLE 9 - LIABILITY AND INDEMNITY

9.1 KGMUmakes no representation or warranty as to merchantability or fitness for a

- particular purpose of the deliverables.
- 9.2 KGMU makes no representations as to potential for any claim of copyright or trade secret infringement based on the use of the deliverables nor shall KGMUbe responsible for procuring for the UM, the use of any product based on the deliverables in the event that the product, or any part thereof, become the subject of a claim of infringement.
- 9.3 Each party shall be responsible for its negligent acts or omissions and the negligent acts or omissions of its employees, officers, or directors, to the extent allowed by law.

ARTICLE 10 - PUBLICITY

- 10.1 KGMU will not use the name of the UM, nor of any member of the UM's staff, in any advertising or promotional material or publicity release without the prior written approval of the UM.
- 10.2 KGMU has been selected to participate in this Project at the UM's discretion. KGMU may not make any statement or otherwise imply to donors, investors, media or the general public that it is a direct grantee of the Bill & Melinda Gates Foundation. KGMU may state that University of Manitoba is the Foundation's grantee and that it is a subcontractor of University of Manitoba for the Project.
- 10.2 The UM will not use the name of KGMU, or any employee of KGMUin any advertising or promotional material or publicity release without the prior written approval of KGMU.
- 10.3 Nothing herein precludes KGMU from including the name of the UM as a funding source for purposes of internal reporting, reporting to government and governmental agencies or in order to obtain financial assistance.

ARTICLE 11 - PUBLICATION

- 11.1 The parties agree that prompt publication will be sought of any Research Results and the Deliverables. The UM shall have the first right to publish and/or disclose publicly, the Deliverables and information and/or Research Results, including all data and results arising from the Project. However KGMU shall have the right to publish Research Results related to their sub-portion of the Project Deliverables, following consultation with UM.
- 11.2 Each party shall acknowledge the support of the other partyin all written and oral presentations of research results, including scientific articles, news releases,

news conferences, public lectures and media interviews subject to Article 10.

ARTICLE 12 - FORCE MAJEURE

- 12.1 No liability shall be incurred by KGMU for delay in progress of the Project or damage suffered or non-performance by KGMU of its obligations as a result of "force majeure", which shall mean Acts of God, fire, floods, riots, wars, financial exigency, or other happenings or occurrences beyond the control of KGMU, but in no way caused by KGMU's default or collusion.
- 12.2 KGMU shall give the UM prompt notice and details in writing of the cause of the force majeure.
- 12.3 No liability shall be incurred by KGMUas long as the force majeure situation is in effect.

ARTICLE 13 - NOTICE

13.1 Any notice, report or other communication which any party may desire to give to the other may be hand delivered or sent prepaid by courier or registered mail, or by facsimile transmission or by email to the respective addresses as set out below, or to such other address as one party hereto might subsequently advise the other:

If to the UNIVERSITY OF MANITOBA:

The University of Manitoba Room 207 Administration Building Winnipeg, Manitoba R3T 2N2

Attention: Dr. Digvir Jayas, Vice-President (Research and International)

with a copy to:

The University of Manitoba Office of Research Services 540 Machray Hall Winnipeg, Manitoba R3T 2N2

Attention: Barbara Crutchley, Director

Ph: (204) 474-9373 Fax: (204) 231-0325

E-mail: barbara_crutchley@umanitoba.ca

If to the Principal Investigator:

Attention:

Dr. Maryanne Crockett

Department of Pediatrics and Child Health College of Medicine/Faculty of Health Sciences

The University of Manitoba

530Basic Medical Sciences Building

745Bannatyne Avenue

Winnipeg, Manitoba R3E 0J9Canada

Ph: (204) 789-3891

Email:maryanne.crockett@umanitoba.ca

With copies to:

Attention:

Dr. James Blanchard

Department of Community Health Sciences
College of Medicine/Faculty of Health Sciences

The University of Manitoba R070 Med Rehab Building. 771 McDermot Avenue

Winnipeg, Manitoba R3E 0T6Canada

Ph: (204) 272-3123

Email: James. Blanchard@med.umanitoba.ca

Attention:

Dr. Stephen Moses

Dept. of Community Health Sciences

College of Medicine/Faculty of Health Sciences

The University of Manitoba S113-750 Bannatyne Avenue

Winnipeg, Manitoba R3E 0W3Canada

Ph: (204) 789-3434

Email: Stephen.Moses@med.umanitoba.ca

If to KGMU:

Mr. Renny Chacko Thomas Assisant Personal Secretary Vice Chancellors Office

King George's Medical University

Shahmina Road Lucknow (UP) India 226003 Ph91-7839552562 Fax: 91-522-2257539

Email: vc@kgmcindia.edu/renny2912.upkguds@gmail.com

ARTICLE 14 - MISCELLANEOUS

- 14.1 Nothing contained herein or done hereunder shall be construed as establishing any agency, employment, partnership or joint venture relationship between the parties for any purpose whatsoever.
- 14.2 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.
- 14.3 The parties hereto represent that they have the necessary capacity and authority to enter into this Agreement.
- 14.4 No amendment, modification or revision of this Agreement shall be effective unless set forth in writing signed by a duly authorized representative of each party.
- 14.5 The titles of the Articles of this Agreement are inserted solely for convenience, are not part of this Agreement and do not in any way limit or amplify the terms hereof.
- 14.6 This Agreement contains the entire agreement between the University and KGMUwith respect to the subject matter herein and supersedes all prior agreements, negotiations, representations and proposals, written and oral with respect to the subject matter herein.
- 14.7 Each of the parties shall sign such documentation and deliver such information as may be reasonably required by the other in order to exercise its rights set forth in this Agreement.
- 14.8 This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Delivery by *facsimile* or by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.

14.9 Schedules "A", "B" and "C"attached hereto form part of this Agreement.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement on the day of , 2015.

THE UNIVERSITY OF MANITOBA

Dr. Digvir Jayas

Vice-President (Research and International)

READ AND UNDERSTOOD:

PRINCIPAL INVESTIGATOR

KING GEORGE'S MEDICAL UNIVERSITY

Prof Ravi Kant

Vice Chancellor
King George's Medical University, Utter Fredesh VICE CHANCELLOR

SCHEDULE "A"

Statement of Work and Deliverables

Over the course of the project, KGMUwill have the following obligations and deliverables:

- 1. Provide technical assistance to the Principle Investigator and Project Management Team.
- 2. Hire one senior subject expert in pediatric pneumonia and diarrhea to the project, to be based in Lucknow.
- 3. Hire upto ten post-graduate doctors to support the development and functioning of pneumonia and diarrhoea treatment centres.
- 4. Collaborate with the Principle Investigator and Project management team to submit applications to the KGMU research ethics board if required.
- 5. Participate in advocacy efforts with the Government of Uttar Pradesh and professional medical organizations regarding the adoption of technical strategies and policies prioritized by the project.

SCHEDULE "B"

Grant Agreement between The University of Manitoba and The Bill and Melinda
Gates Foundation dates November 14, 2013

SCHEDULE "C"

Budget

Budget Line Items	Year 1	Year 2	Year 3	Total
Personnel	174,800	192,280	211,508	578,588
Indirect Costs	26,220	28,842	31,726	86,788
Total Budget	201,020	221,122	243,234	665,376