CLINICAL VECTOR CORE

Research Service Agreement for Vector Production

THIS RESEARCH SERVICE AGREEMENT FOR VECTOR PRODUCTION (this "**Agreement**"), dated as of and made effective on last day written on the signature page below (the "**Effective Date**"), by and between The Children's Hospital of Philadelphia, a Pennsylvania nonprofit corporation, located at 3401 Civic Center Boulevard, Philadelphia, Pennsylvania 19104 (hereinafter called "**CHOP**"), and _____, a _____ [corporation], having a place of business located at _____(hereinafter called "**Customer**"). Each of CHOP and Customer may be referred to herein as a "party" and collectively the "parties."

WHEREAS, CHOP, through its Clinical Vector Core ("CVC"), located within the Center for Cellular and Molecular Therapeutics, has valuable experience, skill, and ability in the research described in Exhibit A (the "**Project**");

WHEREAS, the performance of the Project is of mutual interest to Customer and CHOP, and is consistent with CHOP's mission in research to develop scientific and medical knowledge to advance the state of patient care, with a particular focus on issues involving the care of children, and such Project is consistent with CHOP's status as a nonprofit educational healthcare institution;

WHEREAS, because of its specialized expertise in scientific research, CHOP is one of the only locations where the Project can be undertaken in a prompt and efficient manner in connection with CHOP's existing research activities; and

WHEREAS, CHOP will use scientifically reasonable efforts to perform the Project.

NOW THEREFORE, for good and valuable consideration the sufficiency of which is expressly acknowledged, the undersigned parties, intending to be legally bound, mutually agree as follows:

1. *Scope of Work.*

1.1 Project Deliverables. CHOP will undertake the Project, as more fully described in **Exhibit A** which is hereby incorporated into and made part of this Agreement. **Exhibit A** and one or more Statements of Work ("**SOW**") shall set forth all deliverables required pursuant to this Project (the "**Project Deliverables**"). It is agreed that **Exhibit A** will govern the direction of the Project until amended in a signed writing by authorized representatives of Customer and CHOP. The Project shall be under the direction of the Director of the Clinical Vector Core, a CHOP

employee. The Project Deliverables and the materials included therein are provided to Customer for use only in preclinical or nonclinical (e.g., in vitro or lab animal studies), Phase I, I/II, and/or Phase II human clinical trials. If Customer is unable to provide requested documentation and materials necessary to initiate the project at the agreed upon start date, CHOP will reserve the right to re-schedule.

1.2 *Restriction from Commercial Purposes.*

(A) Project Deliverables shall not be provided to any entity to be used (or provided to a third party for use) for any commercial purposes. As used herein "**Commercial Purposes**" shall mean any sale, lease, license (or exercise of an option right to acquire a license), or assignment granting commercial rights in or to any of the Project Deliverables (or any material included therein), by or to any for-profit or commercial entity, or any use to perform contract research, screen compound libraries, or to produce or manufacture any products for sale, or to conduct research activities that result in any sale, lease, license (or exercise of an option right to acquire a license) or assignment granting commercial rights in or to any Project Deliverables (or material included therein) by or to any for-profit or commercial entity. For clarity, the conduct of industry-sponsored academic research shall not be deemed to be Commercial Purposes per se, unless any of the above conditions of this definition are met.

(B) Customer represents and warrants that it will immediately advise CHOP of any use or activity that would cause CHOP's manufacture of the Project Deliverables hereunder to be a manufacture for any Commercial Purposes as defined herein, and CHOP reserves the right to immediately suspend or terminate all such manufacturing activities until such time as the appropriate license agreements are put in place to permit use for such Commercial Purposes.

1.3 *Clinical-Grade Product.* CHOP shall ensure that the operation of the CVC manufacturing facilities are consistent with all legal requirements, including current Good Manufacturing Practices ("**cGMP**") as applicable to Phase I, II or combination of Phases thereof clinical-grade investigational products. CHOP shall ensure that the CVC standards and specifications for the facilities equipment and information systems are adequate and appropriate for the manufacturing of products of the nature manufactured hereunder consistent with all applicable legal requirements.

1.4 *Pre-clinical or Non-Clinical-Grade Product.* In the event that CHOP manufactures Project Deliverables for use in non-human studies, Customer acknowledges that the Project Deliverables are provided as-is and Customer agrees that such Project Deliverables shall not be

used in humans or for any purpose including but not limited to any diagnostic, prognostic, or treatment purposes.

1.5 *Customer Delays.* If delays in performance of the Project under any SOW are experienced because of Customer's failure to supply CHOP with Customer material, or information required to perform the Project, CHOP shall be entitled, in each case without penalty to CHOP to (a) reallocate resources otherwise reserved for the performance of the Project, (b) extend the timelines for completion of the Project under the relevant SOW, or (c) invoice Customer for lost time in production (e.g. delayed or lost revenue resulting from rescheduling work on other projects, delay in receiving milestone payments from Customer, equipment and human resources idle). Any required changes to the SOW will be expressed in a writing. Failure of the parties to execute a writing will result in a deemed termination of the SOW by the Customer without cause, pursuant to Section 2 below.

2. *Customer Responsibilities.*

2.1 *Customer Material.* Customer hereby agrees that in addition to the rights and obligations set forth herein, Customer shall also assume the responsibilities and obligations set forth in the CHOP Sponsor/IND Holder: Authorities and Responsibilities Policy 026 ("**QMP 026**"), attached hereto as **Exhibit B** and which is hereby incorporated and made part of this Agreement and which may be amended from time to time. CHOP may revise and change QMP 026 at its sole discretion, and after any such change, CHOP will notify Customer in accordance with the notice terms set forth herein. For the avoidance of any doubt, for viral vector manufacturing, Customer agrees that it shall be responsible for providing CHOP the plasmid with the particular gene of interest, and any packaging plasmids which are not available as standard packaging plasmids at CHOP ("**Customer Material**").

2.2 *Customer Material Specifications.* Customer Material to be provided by Customer to CHOP shall be manufactured according to CHOP standards and specifications set forth in **Exhibit B** and shall be of sufficient quantity for CHOP to provide the Project Deliverables, and include required documentation, as described in QMP 026. Customer agrees and expressly understands that CHOP will not confirm the sequence of the Customer Material nor be responsible for nor assume any liability for the quality of the Customer Material. In addition, Customer shall approve in writing the CVC as a suitable manufacturer and confirm the quality system to be compliant with applicable regulations, cGMP standards and guidelines as applicable to the product. Customer understands and agrees that Customer is responsible for developing, qualifying, and conducting an appropriate potency-indicating assay for the clinical product, and

reporting test results to any regulators, and for developing, qualifying, and conducting, or outsourcing, any assay required but not offered as a qualified assay by the CVC and reporting test results to any regulators. Customer acknowledges and agrees to accept full responsibility for the clinical use (if any) of the Customer Material provided to CHOP, distribution, tracking, reporting, and drug recall (as applicable).

2.3 *Transfer of Customer Material to CHOP*. Customer transfer to CVC, at Customer's expense, the Customer Material, analytical methods, samples and all other materials or information necessary or reasonably useful for CVC to manufacture the Project Deliverables. Customer represents and warrants that any information, technology, supplies, specifications, designs and materials it supplies to CHOP will not infringe the intellectual property rights of any third parties. Customer shall not import / export the Customer Material or any information or documents provided hereunder without the requisite export license from the relevant body of the United Nations or other similar international organization, the United States government, the European Union, the country of origin or the original country of export. Upon request from CHOP, Customer shall furnish CHOP general counsel with copies of all documents relating to such import / export.

3. *Term and Termination.*

3.1 Term. The term of this Agreement will commence on the Effective Date and will continue until the third (3rd) anniversary of the Effective Date unless terminated prior to that time or extended by the parties (the "**Term**"). After the Term, this agreement shall automatically renew for successive one year terms unless or until the parties agree otherwise in writing.

3.2 Termination. Either party may terminate this Agreement, by written notice to the other party, for any material breach of this Agreement by the other party, if such breach is not cured within thirty (30) days after the breaching party receives written notice of such breach from the non-breaching party; provided, however, that if such breach is not capable of being cured within such thirty-day period and the breaching party has commenced and diligently continued actions to cure such breach within such thirty-day period, except in the case of a payment default, the cure period shall be extended to 180 days, so long as the breaching party is making diligent efforts to do so. Such termination shall be effective upon expiration of such cure period. If terminated by Customer, CHOP is entitled to full payment for all costs and non-cancelable commitments incurred as of the effective date of the termination and Customer shall pay such payment to CHOP upon notice by CHOP.

3.3 *Termination Without Cause*. CHOP may terminate this Agreement by providing written notice of termination no less than ninety (90) days in advance of the date of termination for any reason.

3.4 *Termination by Insolvency*. Either party may terminate this Agreement upon notice to the other party, upon (a) the dissolution, termination of existence, liquidation or business failure of the other party; (b) the appointment of a custodian or receiver for the other party who has not been terminated or dismissed within ninety (90) days of such appointment; (c) the institution by the other party of any proceeding under national, federal or state bankruptcy, reorganization, receivership or other similar laws affecting the rights of creditors generally or the making by such party of a composition or any assignment for the benefit of creditors under any national, federal or state bankruptcy, reorganization, receivership or other similar law affecting the rights of creditors generally, which proceeding is not dismissed within ninety (90) days of filing. All rights and licenses granted pursuant to this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of Title 11 of the United States Code, licenses of rights of "intellectual property" as defined therein.

4. Costs and Payment.

4.1 *Costs Set Forth in SOW*. Customer will pay CHOP the amount specified in the agreed upon SOW. This includes but is not limited to the costs of labor, materials, QC testing, equipment maintenance, fill/finish manufacturing or processes, stability testing, insurance, chemistry, manufacturing controls ("**CMC**") support, shipping & handling (as applicable). A certificate of analysis ("**CoA**") or certificate of characterization ("**CoC**") documenting purity, titer and safety for GMP-grade and non-GMP grade products, respectively, will be provided at the completion of services (if applicable). Any additional costs need to be mutually agreed upon in writing between the parties.

4.2 *Payments and Down Payment*. Customer shall make payment to CHOP within thirty (30) days of receipt of an invoice under any SOW unless otherwise agreed to by the parties in writing. An initial invoice for one third (1/3) or thirty-three percent (33%) of the total cost of the Project will be processed upon CHOP's receipt of Customer's signed acceptance of each SOW under this Agreement. The amount due under such initial invoice shall be paid by Customer to CHOP and the parties agree that such amount shall be a non-refundable down-payment towards the cost of the Project (the "**Down Payment**").

4.3 *Liquidated Damages*. The parties hereto acknowledge and agree that in the event of a breach or cancelation of this Agreement by Customer the sums payable as the Down Payment shall give rise to liquidated damages and not penalties. The parties further acknowledge that (a) the amount of loss or damages likely to be incurred by CHOP is incapable or is difficult to precisely estimate, (b) the amounts specified bear a reasonable proportion and are not plainly or grossly disproportionate to the probable loss likely to be incurred by CHOP, and (c) the parties are sophisticated business parties and have been represented by sophisticated and able legal and financial counsel and negotiated this Agreement at arm's length.

4.4 *Remaining Balances*. The remaining balance due and amounts owed for the Project Deliverables under each SOW shall be due in accordance with the amounts and payment schedule agreed to by the parties under the "Payment Schedule" heading in each SOW.

4.5 *Additional Services, Late Payments and Interest*. For any additional services, Customer will be invoiced for each service, as defined in the SOW. If Customer fails to make any payment due to CHOP under this Contract by the due date for payment, then, without limiting the CHOP's remedies under this Agreement, including any liquidated damages due under this Agreement, CHOP may charge interest on the overdue amount at the rate of 2% per annum above the U.S. Federal Reserve Bank's prime rate from time to time. Such interest shall accrue on a daily basis from the due date until actual payment of the overdue amount, whether before or after judgment. Customer shall pay the interest together with any overdue amount.

5. Customer Reports to CHOP.

5.1 *Clinical Trial Reporting*. In the event that CHOP manufactures Project Deliverables for human clinical studies, Customer shall provide CHOP, upon execution of this Agreement, and on or around July 15 annually thereafter when requested by CVC, the name of any clinical trials in which the Project Deliverables manufactured hereunder will be used or are being used, the number of patients that Customer anticipates will be treated with the Project Deliverables provided hereunder in the upcoming year, and the number of patients that Customer has treated during the prior year. CHOP will maintain such information as confidential information only to be disclosed to CHOPs insurance underwriter and as may required by law.

5.2 *Severe Adverse Event Reporting*. Customer shall report to CHOP any serious adverse events (SAE) that occur in a clinical trial in which the Product Deliverable is being used that involves, or potentially involves, the Product Deliverable.

6. *Indemnities and Insurance.*

6.1 *Customer Assumes Risk*. Customer assumes the risk of any damage, loss, or expense associated with or resulting from any of the following: (A) CHOP's transfer of the Project Deliverables to Customer using the transfer method of Customer's choosing; (B) Customer's conduct of any form of research utilizing the Project Deliverables; (C) Customer's use, handling, study, storage, return, or disposal of the Project Deliverables; (D) Customer's breach of this Agreement; or (E) Customer's failure to conform to law or regulation applicable to this Agreement or the subject matter thereof, to the Project Deliverables, or to any research or activity conducted by Customer involving the Project Deliverables.

6.2 *Indemnification*. Customer shall indemnify, defend, advance and hold harmless CHOP and its officers, trustees, employees, members of its medical and research staff and agents (collectively "**CHOP Indemnitees**") from any claim, loss, judgment, liability, damage, settlement, fine or expense of any kind whatsoever (including reasonable attorneys' fees, interest, penalties and costs) (a "**Claim**"), including, without limitation, a Claim arising from the negligence of any CHOP Indemnitee, that may arise from or be asserted in connection with any of the following: (A) CHOP's transfer of the Project Deliverables to Customer using the transfer method of Customer's choosing; (B) Customer's conduct of any research, including, without limitation, any human clinical trials, in any form utilizing the Project Deliverables; (C) Customer's use, handling, study, storage, return, or disposal of the Project Deliverables; (D) Customer's negligence or willful misconduct or any breach by Customer of this Agreement; or (E) Customer's failure to conform to law or regulation applicable to (1) this Agreement or the subject matter hereof, (2) to the Project Deliverables, or (3) to any research, including, without limitation, any human clinical trials or other activity conducted by Customer involving the Project Deliverables provided, however, that to the extent that any such Claim results solely from the gross negligence or willful or intentional misconduct of a CHOP Indemnitee, Customer shall have no such indemnity obligation with respect to any such CHOP Indemnitee.

6.3 *Indemnification Procedure*. To the extent reasonably feasible, CHOP shall notify Customer in writing of any Claim that, in CHOP's reasonable judgment, is likely to lead to a claim for indemnification. Customer shall promptly assume the entire defense of such Claim following CHOP's written notice, and shall, promptly upon notice from CHOP of any prior expenses, reimburse any CHOP Indemnitee for any expenses, fees or costs incurred by any CHOP Indemnitee with respect to defense of such Claim prior to the date of Customer's assumption of the defense. Customer shall have the right to manage the defense and settlement of any Claim, except that (A) Customer shall consult with the affected CHOP Indemnitee regularly with respect to all material matters pertaining to the defense of any such Claim; (B) CHOP shall have the right

to approve Customer's choice of counsel to defend any such Claim, which approval shall not be unreasonably withheld by CHOP and (C) Customer may not enter into any settlement on behalf of any CHOP Indemnitee without CHOP's prior written approval, which approval shall not be unreasonably withheld by CHOP. CHOP may not enter into any settlement of any such Claim as to which Customer has an obligation to indemnify CHOP without the written permission of Customer, which approval shall not be unreasonably withheld by Customer. CHOP shall use commercially reasonable efforts to cooperate with Customer in the defense of the Claim at Customer's sole expense. CHOP may hire its own counsel, at its own expense, to monitor the defense of any Claim in which case Customer shall use commercially reasonable efforts at its sole expense to cooperate with CHOP in the defense of the Claim by CHOP's selected counsel. In addition, CHOP may elect to assume control of the defense of such Claim. CHOP's hiring of its own counsel or assumption of its own defense shall not relieve Customer of obligations to indemnify or further defend any CHOP Indemnitee with respect to such Claim except to the extent that any CHOP Indemnitee receives a final judgment of gross negligence or willful or intentional misconduct by such CHOP Indemnitee with respect to such Claim in which case Customer shall be relieved of its indemnity obligation with respect to such Claim as to such CHOP Indemnitee. CHOP and Customer may execute such mutually acceptable Confidentiality and Joint Defense Agreements to protect privileged materials as shall be usual and customary in such proceedings and as shall be requested in writing by either CHOP or Customer.

6.4 *No Warranty*. Customer acknowledges that the Project Deliverables are experimental in nature and may have unknown characteristics, may carry infectious agents, or may be otherwise hazardous. THE PROJECT DELIVERABLES ARE PROVIDED "AS IS" AND CHOP (INCLUDING THE CHOP INDEMNITEES) DISCLAIMS ANY WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE PROJECT DELIVERABLES, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR ANY WARRANTY THAT THE USE OF THE PROJECT DELIVERABLES, BIOLOGICAL MATERIALS, ANALYTICAL METHODS, TESTING ASSAYS, SOPs, AND OTHER INFORMATION PROVIDED TO CUSTOMER WILL NOT INFRINGE OR VIOLATE ANY PATENT, COPYRIGHT, OR OTHER PROPRIETARY RIGHT OF ANY THIRD PARTY. Without limitation of the foregoing, CHOP (including the CHOP Indemnitees) makes no representation or warranty as to the identity, purity, safety, fitness, or activity of the Project Deliverables except for the attributes as indicated on the CoA or CoC(as applicable). CUSTOMER'S EXCLUSIVE REMEDY UNDER THIS AGREEMENT IS, AT CHOP 'S SOLE OPTION, A CREDIT FOR, OR RE-PERFORMANCE OF, THE SERVICES. IN NO EVENT WILL CHOP BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR INDIRECT DAMAGES, INCLUDING

WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR PROPERTY DAMAGE SUSTAINED BY CUSTOMER FROM THE USE OF, OR INABILITY TO USE, ANY PROJECT DELIVERABLES OR RESULTS, EVEN IF CHOP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AS TO ANY CHOP LIABILITY NOT SUBJECT TO THE FOREGOING, CHOP 'S MAXIMUM LIABILITY WILL NOT EXCEED THE AGGREGATE AMOUNT PAID BY CUSTOMER TO CHOP FOR THE CORE SERVICES IN QUESTION. WITHOUT LIMITATION OF THE FOREGOING, CHOP (INCLUDING CHOP INDEMNITEES) MAKE NO REPRESENTATION OR WARRANTY AS TO THE SAFETY, FITNESS, OR ACTIVITY OF THE PROJECT DELIVERABLES.

6.5 *Insurance*. Customer shall, at its own cost and expense, obtain and maintain in full force and effect during the Term of this Agreement the following: (A) Commercial General Liability Insurance with an amount of not less than three million dollars ($3,000,000) per occurrence and five million dollars ($5,000,0000) aggregate; (B) Clinical Trials Liability insurance with a per occurrence limit of not less than ten million dollars ($10,000,000); (C) Workers' Compensation Insurance with statutory limits and Employers Liability Insurance with limits of not less than $1,000,000 per accident; and (D) Auto Liability insurance for owned, hired and non-owned vehicles in a minimum amount of $1,000,000 combined single limit. Customer shall, at its own cost and expense, obtain and maintain in full force and effect during the Term, All Risk Property Insurance, including transit coverage, in an amount equal to the full replacement value of its property while in, or in transit to, a CHOP facility. Each party may self-insure all or any portion of the required insurance as long as, together with its affiliates, its US GAAP net worth is greater than one hundred million dollars ($100,000,000) or its annual EBITDA (earnings before interest, taxes, depreciation and amortization) is greater than seventy-five million dollars ($75,000,000). Each required insurance policy, other than self-insurance, shall be obtained from an insurance carrier with an A.M. Best rating of at least A- VII or an S&P rating of A. If any of the required policies of insurance are written on a claims made basis, such policies shall be maintained throughout the Term and for a period of at least five (5) years thereafter. Client shall obtain a waiver of subrogation clause from its property insurance carriers in favor of CHOP. Customer's Clinical Trials Liability insurance shall be primary and noncontributing with insurance, deductibles or self-insurance maintained by CHOP. CHOP shall be named as an additional insured within the other party's products liability insurance policies; provided, that such additional insured status will apply solely to the extent of the insured party's indemnity obligations under this Agreement. Waivers of subrogation and additional insured status obligations will operate the same whether insurance is carried through third parties or self-insured. Upon the other party's written request from time to time, each party shall promptly furnish to the other party a certificate of insurance or other evidence of the required insurance.

7. Use of CHOP Name.

Except as specified in Section 11 herein, Customer shall not use the name, insignia, trademark, trade name, logo, abbreviation, nickname, or other identifying mark or term of CHOP for any purpose, except as required by law, without the prior written consent of CHOP's Chief Marketing Officer for each instance of use. Requests for such use shall be made to CHOP's Office of General Counsel at legal@chop.edu.

8. Invention and Patent Rights; Licenses.

Ownership. It is recognized and understood that all inventions and technologies owned by CHOP or Customer and existing on the effective date of this Agreement shall remain the separate property of CHOP or Customer, respectively. Such inventions and technologies are not affected by this Agreement, and none of the parties shall have any claims or rights to or in such separate inventions or technologies of the other parties.

CHOP shall retain ownership of its proprietary operating procedures, know-how, manufacturing process(es), methods, and techniques as well as any and all new developments and improvements related to such processes, methods, and techniques made in the performance of this Agreement ("**CHOP Process**"). Customer will not use or disclose to any third party any confidential or proprietary information of CHOP without CHOP prior written consent, including without limitation any information Customer learns if Customer visits CHOP premises or without limitation any CHOP Process. Customer agrees that any information related to any CHOP Process that is (i) disclosed by CHOP to Customer or (ii) learned by Customer in its dealings with CHOP under this Agreement shall be treated as confidential, proprietary information of CHOP and that Customer shall not share such information with any third party or use such information for any purpose. To the extent that Customer is required to disclose any CHOP Process under applicable law, Customer shall notify CHOP no later than fifteen (15) days in advance of such disclosure, and Customer shall be required to follow CHOP's advice and guidance with respect to the form and content of such disclosure.

8.1 *Spark License*. In the event that CHOP manufactures Project Deliverables for human clinical studies, Customer understands and acknowledges that Spark Therapeutics, Inc. ("**Spark**") holds an exclusive license from CHOP for certain patents, know-how, and data, including the ability to reference CHOP's Drug Master File ("**DMF**") on file with the U.S. Federal Food and Drug Administration ("**FDA**"), for Commercial Purposes. Customer must secure a sublicense from Spark to allow the Project to move beyond the SOW attached hereto as **Exhibit**

A. Customer shall be granted a limited right of cross reference to the DMF on file with the FDA solely for the purpose of supporting the project described in the SOW. For the avoidance of doubt, the SOW must be limited to manufacture for purposes that do not exceed in vitro studies, lab animal studies, Phase 1, Phase 1/2, and/or Phase 2 clinical trials, and must not include any use or manufacture for Commercial Purposes. Any extension of such SOW to include Project Deliverables for a clinical trial for the purpose of conducting a pivotal or registration trial or for commercial manufacture, or for any other Commercial Purposes shall not be permitted without a sublicense from Spark. In addition, no right of cross reference to the DMF is granted by CHOP for a clinical trial for the purpose of conducting a pivotal or registration trial or for commercial manufacture, or for any other Commercial Purposes. In the event of any conflict between a SOW and this Agreement, the terms of this Agreement shall prevail.

8.2 [**ADD IF** *Addgene Plasmid-Specific Lentiviral Vectors UBMTA*. In the event that the Project Deliverables for a SOW includes the use of packaging plasmids provided by CHOP for the manufacture of lentiviral vectors, Customer expressly acknowledges and understands that certain proprietary lentiviral packaging plasmids will be used in the generation and production of the Project Deliverables, and are used under the terms and conditions of a Uniform Biological Material Transfer Agreement ("**UBMTA**") entered into by CHOP. Pursuant to the terms and conditions of the applicable UBMTA, the use of the Project Deliverables (or any materials included therein) is permitted only by and for non-profit or academic entities solely for research and teaching purposes, and no Commercial Purposes use is permitted under the UBMTA by or together with any commercial or for-profit entity, or for any Commercial Purposes whatsoever without obtaining a separate commercial license from CHOP's third party provider under the UBMTA. **LANGUAGE TO BE REMOVED IF NOT APPLICABLE**]

9. Export Control.

Customer shall not disclose or provide to CHOP or any CHOP trustee, officer, employee or agent of CHOP or other person in a position to receive such information from Customer (each a "**Customer PERSON**") any information subject to the licensing provisions of International Traffic In Arms Regulations (ITAR) under 22 CFR §§ 120-130, and Export Administration Regulations (EAR) under 15 CFR §§ 730- 774, or any other similar governmental authority or organization without limitation, without the prior written notice to and advance approval by CHOP. Customer shall not import or export and materials or information provided by CHOP to Customer without the appropriate license or approval from any applicable regulatory authority.

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10. Publication.

Sponsor and CHOP agree that in the event CHOP manufactures a product that results in a scientific publication, (a) representative(s) from CHOP CVC will be included as co-author as deemed appropriate in accordance with standard, peer reviewed, academic practices for publications.

11. Hazardous and Regulated Material.

Customer shall package, label, transport, and ship hazardous materials, or material containing hazardous materials, and any other regulated materials, in accordance with all applicable federal, state, and local laws, rules, ordinances, and regulations, and shall furnish any appropriate documentation or Material Data Safety Sheets. Prior to each shipment of any hazardous regulated materials, Customer shall notify CHOP of the nature of such shipment by such means of communication as will allow for the proper preparation for acceptance of the delivery and shall identify same on all shipping documents. Customer shall be solely responsible for notifying carriers and other handlers of any risks inherent in any such shipments.

12. Fair Market Value; No Inducements.

Each Party represents that the compensation provided under this Agreement represents the fair market value of the services to be performed, has been negotiated in an arm's-length transaction, and has not been determined in any manner with regard to any implicit or explicit agreement to provide favorable procurement decisions with regard to the value or volume of any business or referrals generated between the Parties.

13. Notices.

Any notice required or permitted to be given under this Agreement by any party shall be in writing and shall be (a) delivered personally, (b) sent by registered mail, return receipt requested, postage prepaid, (c) sent by a nationally-recognized courier service guaranteeing next-day or second day delivery, charges prepaid, or (d) delivered by email to the addresses of the other party set forth below, or at such other addresses as may from time to time be furnished by similar notice by any party. The effective date of any notice under this Agreement shall be the date of receipt by the receiving party.:

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For Customer:

_____

_____

_____

_____

For CHOP:

The Children's Hospital of Philadelphia
Roberts Center for Pediatric Research – 17th Floor
2716 South Street
Philadelphia, PA 19146
Attention: Vice President, Technology Transfer, Commercialization and Innovation
Email:

With a copy to:

The Children's Hospital of Philadelphia
Office of General Counsel
Roberts Center for Pediatric Research – 20th Floor
2716 South Street
Philadelphia, PA 19146
Email: legal@chop.edu

Either party may change its address for notice by giving notice thereof in the manner set forth in this Section 13.

14. Limited Storage of Customer Material.

The parties acknowledge that CHOP has limited storage space, and that after the product release, CHOP agrees to store the Customer Material and/or Project Deliverables for up to six (6) months after the date of the product release. Customer shall communicate to CHOP as soon as practicable where to ship the Customer Materials and/or Project Deliverables. Such Customer Materials and/or Deliverables cannot be stored by CHOP for a period longer than six (6) months from the date of the product release without Customer incurring additional costs. Any storage by CHOP of any Customer Material and or Project Deliverables for a period loner than six (6) months from the date of product release ("**Extended Storage**"), shall not last more than the third anniversary

of the product release date. Any Extended Storage shall require a written agreement which shall address the Extended Storage period and costs to be charged by CHOP to Customer for such Extended Storage. Customer shall reimburse CHOP for additional storage costs whether the costs are for Extended Storage or otherwise. CHOP may also, at its sole discretion, place Customer Material and/or Project Deliverables in an off-site storage facility qualified by CVC for GMP storage and Customer shall reimburse CHOP for any fees for such storage. During the Term, CVC may periodically notify Customer in writing to request disposition of Customer Material or Project Deliverables, upon completion of project stages ("**Notified Customer Material**"). Upon request, Customer agrees to provide written instructions with respect to the Notified Customer Materials within forty-five (45) days. If Customer wishes to retain any of the Notified Customer Material, CVC shall deliver such Notified Customer Material in accordance with the instructions provided by the Customer. Shipping charges for shipment of Customer Material and/or Project Deliverables to a single destination defined by Customer, are included in the project cost. If Customer fails to respond to the notice or indicates in writing it does not wish to retain Notified Customer Material, all rights, title and ownership to such Notified Customer Material shall automatically transfer to CVC without further consideration to Customer and Customer shall have no further interest therein. Upon such transfer, CVC shall be entitled to dispose of the Notified Customer Material, notwithstanding any other provisions herein.

15. *General Provisions*

Laws and Regulations. This Agreement is subject to all local, state and federal laws and regulations. In carrying out the purpose of this Agreement, each of CHOP and Customer agrees that its activities will be conducted in compliance with all relevant laws and regulations in force at the United States federal, state and local levels. Customer shall also conform to the requirements and standards of the Association for Assessment and Accreditation of Laboratory Animal Care International in all activities of the Project undertaken by Customer. This Agreement is governed by the laws of the Commonwealth of Pennsylvania. Any legal action involving or arising under this Agreement or the Project Deliverables will be adjudicated in the courts of the Commonwealth of Pennsylvania, located in Philadelphia, Pennsylvania without regard to its conflict of laws principles. Customer represents and warrants that neither Customer nor its affiliates nor any director, officer, agent, or employee of Customer is currently subject to any sanctions administered by any government authority or agency.

Assignment. Neither party may assign this Agreement without the prior written consent of the other party.

15.1 *Severability*. If any provision of this Agreement becomes or is declared illegal, invalid, or unenforceable, the provision will be divisible from this Agreement and deemed to be deleted from this Agreement. If the deletion substantially alters the basis of this Agreement, the parties will negotiate in good faith to amend the provisions of this Agreement to give effect to the original intent of the parties.

15.2 *Independent Contractors*. CHOP and Customer are independent contractors and neither is an agent, joint venturer, or partner of the other. No employee of CHOP may be listed by Customer as an investigator or co-investigator under this Agreement without the express written approval of CHOP.

15.3 *Prevailing Terms*. In the event of any inconsistency between the terms of this Agreement and the documents referenced or incorporated into this Agreement, the terms of this Agreement prevail.

15.4 *Entire Agreement and Electronic Signature*. This Agreement, the SOW, QMP 026 and other pertinent documentation attached hereto represents the entire agreement and understanding between the parties with respect to its subject matter. It supersedes all prior or contemporaneous discussions, representations, or agreements, whether written or oral, of the parties regarding this subject matter. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, and all of which together will constitute the same agreement. This Agreement may be executed by a party through electronic means, and copies of this Agreement executed and delivered by means of electronic signatures shall have the same force and effect as if such signatures were originals. Delivery of an executed copy of this Agreement by any party via electronic transmission will be as effective as delivery of a manually executed copy of the Agreement.

15.5 *Waiver*. The waiver by either party of a breach of any provision of this Agreement shall not operate as or be considered a waiver by that party of any subsequent breaches.

15.6 *Amendments or Changes*. Amendments or changes to this Agreement must be in writing and signed by the parties' authorized representatives.

15.7 *Force Majeure*. CHOP shall not be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by

or results from acts beyond CHOP's control, including but not limited to, the following force majeure events ("**Force Majeure Event(s)**"): acts of God; flood, fire, earthquake, healthcare crises including pandemic, explosion, war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest, government order, law, or actions, emergency declarations, embargoes or blockades in effect on or after the date of this Agreement, national, state or regional emergency, strikes, labor stoppages or slowdowns or other industrial disturbances, shortage of adequate power or transportation facilities; and other events similar to those listed in this Section 14.9 that are beyond the control of CHOP.

15.8 *Conflicts and Ethical Standards of Conduct*. Customer affirms that, to the best of Customer's knowledge, there exist no conflicts of interests between Customer and CHOP or its employees. Customer hereby represents that it has neither received nor given gifts or gratuities to any member of the CHOP community, nor participated in any other unethical conduct in connection with this Agreement. If, at any time, CHOP determines that Customer is in violation of any representation under this Section, CHOP may cancel this Agreement upon written notice to Customer, and CHOP shall have no further obligation to Customer.

15.9 *Equal Opportunity Employer*. CHOP is an Equal Opportunity Employer. If applicable, CHOP and Customer shall abide by the requirements of 41 CFR 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans. If applicable, CHOP and Customer shall abide by the requirements of 41 CFR 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities. Customer warrants that it will not discriminate in the performance of this Agreement or employment against any person because of age, race, color, religion, national or ethnic origin, sex, sexual orientation, gender identity, marital status, veteran status, or disability. Customer also warrants that it will comply with all applicable executive orders, and federal, state, and local laws, regulations, and rules, relating to nondiscrimination, equal employment opportunity, and affirmative action.

15.10 *Survival*. The rights and obligations of each of CHOP and Customer, which by intent or meaning have validity beyond any termination or expiration of this Agreement, shall survive such termination or expiration of this Agreement, including but not limited to Sections [1.2, 1.4, 2.2, 2.3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14 and 15].

15.11 *No Presumption Against Drafter*. For purposes of this Agreement, Customer hereby waives any rule of construction that requires that ambiguities in this Agreement (including any Exhibit, attachment, schedule or other appendix hereto) be construed against the drafter.

Remainder of page intentionally left blank.

Signature page follows.

CLINICAL VECTOR CORE

Research Service Agreement for Vector Production

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the last date written below.

THE CHILDREN'S HOSPITAL OF PHILADELPHIA	**[CUSTOMER NAME]**
By _____	By _____
Name:	Name:
Title:	Title:
Date:	Date:

CLINICAL VECTOR CORE

Research Service Agreement for Vector Production

EXHIBIT A

DESCRIPTION OF RESEARCH

[Description of service to be provided]

SCOPE OF WORK AND PROJECT DELIVERABLES:

1) [Description of deliverable(s)]

2) Statement of Work and Cost Estimate (Estimate _____) attached (Appendix A).

3) CHOP will provide Customer with a [Certificate of Characterization / Certificate of Analysis] as per the attached template (Appendix B). The version of the certificate to be used by CHOP in the execution of the services will be presented to customer for approval prior to use. Potency assay to be performed by sponsor.

PAYMENT SCHEDULE:

IN WITNESS WHEREOF, the parties hereto have caused this SOW to the Agreement to be duly executed as of the last date written below.

THE CHILDREN'S HOSPITAL OF PHILADELPHIA	**[CUSTOMER NAME]**
By _____	By _____
Name:	Name:
Title:	Title:
Date:	Date:

CLINICAL VECTOR CORE

Research Service Agreement for Vector Production

EXHIBIT B

CHOP Clinical Vector Core Quality Management Policy 026

[Attached]

CLINICAL VECTOR CORE

Research Service Agreement for Vector Production

IN WITNESS WHEREOF, the Customer has reviewed the foregoing CHOP Clinical Vector Core Quality Management Policy 026 and accepts and agrees to the Customer Responsibilities contained therein.

ACKNOWLEDGE AND AGREED TO BY [CUSTOMER]:

By_____
Name:
Title:
Date: