AMENDMENT AND RESTATEMENT AGREEMENT TO THE mRNA VACCINE TECHNOLOGY TRANSFER AGREEMENT

THIS AMENDMENT AND RESTATEMENT AGREEMENT TO THE mRNA VACCINE TECHNOLOGY TRANSFER AGREEMENT (this "**Amendment**") is made as of 1 April 2024 (the "**Amendment Effective Date**")

BETWEEN:

THE MEDICINES PATENT POOL FOUNDATION, a non-profit foundation registered under the laws of Switzerland, and having a principal place of business at Rue de Varembé 7, CH-1202 Geneva ("**MPP**"); and

INSTITUT PASTEUR DE DAKAR, a private, non-profit Senegalese foundation having an address at 36, avenue Pasteur, B.P. 220, Dakar, Senegal ("**IPD**"),

with the **MPP** and **IPD** collectively referred to as the "**Parties**".

RECITALS

WHEREAS, MPP and IPD entered into an mRNA Vaccine Technology Transfer Agreement dated 27 January 2023 (the "**Agreement**") as part of the mRNA Technology Transfer Programme, for MPP to transfer to IPD technology related to the development and manufacturer of mRNA-based vaccines;

WHEREAS, MPP and IPD wish to amend and restate the Agreement to (i) include the provision of funding from MPP to IPD for IPD to perform activities and (ii) make other amendments to the Agreement; and

NOW THEREFORE, based on the foregoing premise and in consideration of the mutual covenants and obligations contained herein and other good and valuable consideration, the receipt, adequacy, and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

AGREEMENT

1 **Definitions.** All captialised terms not otherwise defined herein shall have the meanings assigned to them in the Restated Agreement.

2 **Amendment and Restatement.** The Agreement is, with effect from the Amendment Effective Date, amended to take the form set out in Schedule 1 to this Amendment, which restates the Agreement as amended by this Amendment (the "**Restated Agreement**").

3 **General.**

3.1 **Amendments.** No provision of this Amendment may be modified or amended except expressly in writing signed by both Parties.

3.2 **Governing Law and Jurisdiction.** The provisions of Section 18 (*Governing Law and Jurisdiction*) of the Restated Agreement are hereby incorporated into this Amendment as if set out herein.

3.3 **Counterparts.** This Amendment may be executed in any number of counterparts, and by the Parties on separate counterparts, but shall not be effective until each Party has executed at least one counterpart. Each counterpart shall constitute an original of this Amendment, but all the counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF the Parties have executed this Amendment by their duly authorised officers.

Signed for and on behalf of:

THE MEDICINES PATENT POOL FOUNDATION

Signature: DocuSigned by: Charles Gore 4713D0F59C13482...

Name: Charles Gore

Position: Executive Director

Date: 3/29/2024

Signature: DocuSigned by: Marie-Paule Kieny 331D2E7893C949A...

Name: Marie-Paule Kieny

Position: Chair of the Board

Date: 3/29/2024

Signed for and on behalf of:
INSTITUT PASTEUR DE DAKAR

Signature : DocuSigned by: Amadou Alpha Sall B151FB7ED034403...

Name: Amadou Alpha Sall

Position: Chief Executive Officer

Date: 4/12/2024

Schedule 1

Restated Agreement

mRNA VACCINE TECHNOLOGY TRANSFER AGREEMENT

THIS mRNA VACCINE TECHNOLOGY TRANSFER AGREEMENT (this "**Agreement**") is made as of 27th January 2023 (the "**Effective Date**"), and is amended and restated on the 1 April 2024 ("**Amendment Effective Date**")

BETWEEN:

THE MEDICINES PATENT POOL FOUNDATION, a non-profit foundation registered under the laws of Switzerland, and having a principal place of business at Rue de Varembé 7, CH-1202 Geneva ("**MPP**"); and

INSTITUT PASTEUR DE DAKAR, a private, non-profit Senegalese foundation having an address at 36, avenue Pasteur, B.P. 220, Dakar, Senegal ("**IPD**"),

with the MPP and IPD collectively referred to as the "**Parties**".

WHEREAS, MPP, in collaboration with the World Health Organization ("**WHO**"), has established the mRNA Technology Transfer Programme with the aim to establish or enhance sustainable mRNA vaccines manufacturing capacity in low- and middle-income countries ("**LMICs**"), in particular to improve the ability of such countries to better respond to the COVID-19 pandemic and other future pandemics;

WHEREAS, MPP has engaged with Afrigen Biologics (PTY) LTD ("**Afrigen**") and The Biologicals and Vaccines Institute of Southern Africa ("**Biovac**") to develop an mRNA technology platform for deployment into LMICs for this purpose;

WHEREAS, MPP has secured contractual commitments from Afrigen and Biovac to transfer the technology of such mRNA technology platform to selected recipients;

WHEREAS, MPP has obtained sublicensable rights to Afrigen and Biovac's IP, Know-How and data;

WHEREAS, IPD has been identified by WHO as a suitable recipient of the mRNA technology platform;

WHEREAS, IPD is willing and able to receive this technology, and in return, willing to make certain commitments as to what IPD will do with such technology; and

WHEREAS, MPP is willing to provide financial support to IPD to contribute enhancing its mRNA research and development and/or manufacturing capacity and capability.

NOW THEREFORE in consideration of the covenants and obligations expressed in this Agreement, and intending to be legally bound, the Parties agree as follows:

1 DEFINITIONS

1.1 "**Affiliate**", in relation to an entity, shall mean any corporation, firm, partnership or other entity which is directly or indirectly controlled by, in control of, or under common control with such entity. For the purposes of this definition, "**control**" shall mean the ability of any corporation, firm, partnership or other entity, whether through ownership of shares or otherwise, to procure that the affairs of an entity are conducted in accordance with the wishes of such corporation, firm, partnership or other entity.

1.2 "**Afrigen Rights**" shall mean the sublicensable rights to data, Know-How and IP that was granted from Afrigen to MPP under the MPP-Afrigen Grant Agreement dated 21 January 2022, as amended from time to time.

1.3 "**Biovac Rights**" shall mean the sublicensable rights to data, Know-How and IP that was granted from Biovac to MPP under the MPP-Biovac Technology Transfer Agreement dated 4 August 2022, as amended from time to time.

1.4 "**Confidential Information**" shall mean all information that would reasonably be regarded as, or is designated as, of a confidential or commercially sensitive nature by the person to which the information relates including, without limitation, the Know-How and any matter relating to, or arising in connection with, this Agreement or the business or affairs of any of the Parties or any of their Affiliates.

1.5 "**Cost of Production**" shall mean the total of the following:

(a) raw material costs

(b) raw material wastage

(c) packaging material costs

(d) packaging material wastage

(e) costs of quality control testing

(f) transport costs

(g) warehousing at the request of WHO or the Public Sector Agency

(h) direct energy costs in production

(i) direct labour costs

(j) direct labour-related overheads

(k) amortization on capital investment provided by the Company

(l) allocable portion of building used in connection with the production of the Product, over a period of 25 years

(m) machinery or related equipment used in the production of the Product over a period of 5 years

(n) fixed overheads for the manufacturing site

(o) allocable general and administrative costs

(p) other financial charges as specifically applicable to the sale of the Product

(q) interest charges on investment in the production and sale of the Product

(r) research and development costs directly attributable to the production of the Product

1.6 "**Event of Force Majeure**" shall have the meaning given in Section 13.

1.7 "**Facility**" shall mean the area in the IPD premises where the intended transferred technology will be operationalized.

1.8 "**Funded Project**" shall mean IPD activities described in the Scope of Work and financed by the Budget described in Annex 5.

1.9 "**Funders**" shall mean Third Parties that provide financial support to the Project or Funded Project, either through MPP or directly to IPD.

1.10 "**Inventions**" shall mean all ideas, inventions, discoveries, data or Know-How to the extent it was conceived, first created or made in the performance of the Project using the Technology.

1.11 "**IP**" shall mean any and all rights in or to intellectual property, whether subsisting now or un the future, anywhere in the world, whether registered or not, including any and all rights in or to patents, supplementary protection certificates, utility models, rights to inventions, copyright and neighbouring and related rights, trade marks, business names and domain names, rights in get-up and trade dress, goodwill and the right to sue for passing off, rights in designs, rights in computer software, database rights, rights to use, and protect the confidentiality of, confidential information (including Know-How), any other rights and other rights of a similar nature, in the case of each of the foregoing, including all applications, and rights to apply, for registration, renewals or extensions, reissues, divisions, revisions, renewals, extensions, provisionals, continuations and continuations-in-part.

1.12 "**Know-How**" shall mean any and all confidential and proprietary information and materials, discoveries, processes, methods, protocols, formulas, molecular constructs, reagents, assays, data, results, inventions, improvements, trade secrets, compositions of matter (including compounds), formulations, and findings, in each case, patentable or otherwise, and including any copyrights therein.

1.13 "**Materials**" shall mean the materials described in Annex 2.

1.14 "**Product(s)**" shall mean any product developed by IPD which receives Regulatory Approval by a Relevant Regulatory Authority, and which is entirely or partially based on the Technology.

1.15 "**Programme Agreement**" shall mean any other agreement entered into between MPP and a Third Party as part of the Project under which MPP is granted rights to data, Know-How or IP for further sublicensing.

1.16 "**Project**" shall mean the mRNA Technology Transfer Programme.

1.17 "**Public Sector Agency**" shall mean: (a) the following organisations to the extent that they are not for profit organisations: (i) Governments including without limitation government ministries and agencies, together with government-funded institutions and programs, such as state-run hospitals and prison services in those countries; (ii) NGOs including without limitation those recognized by the applicable local government ministry; (iii) UN-related organizations working for or in those countries, including but not limited to WHO, UNDP, PAHO and UNICEF; (iv) Not-for-profit organizations including without limitation, Médecins Sans Frontières, Save-the-Children, OXFAM and the International Committee of the Red Cross (ICRC); (v) Funding mechanisms and programs funded by such mechanisms, including without limitation, UNITAID, PEPFAR, USAID, Global Fund, GAVI, AVAT, etc.; and agencies based outside of an applicable country to the extent that they are supporting implementation locally in an applicable country, and (b) nominally for profit procurement organisations but only to the extent that such procurements are supporting not-for-profit treatment programmes as described in (a) of this Section.

1.18 "**Regulatory Approval**" shall mean the receipt of a marketing authorisation associated with that Product in a country.

1.19 "**Relevant Regulatory Authority**" shall mean (i) in relation to a particular country in the Territory, any applicable federal, national, regional, state, provincial, or local regulatory agencies, departments, bureaus, commissions, councils or other government entities regulating or otherwise exercising authority with respect to the Products in that country, or (ii) WHO pre-qualification programme where such approval has been deemed adequate by the authority referred to in (i).

1.20 "**Scope of Work**" shall mean the scope of work set out in Annex 4.

1.21 "**Technical Assistance**" shall mean the assistance detailed in Sections 2.3 and 2.4 of this

Agreement.

1.22 "**Technical Information**" shall mean the documentation listed in Annex 3 detailing technical specifications and instructions for manufacturing and testing the selected mRNA vaccine candidate. Such Technical Information shall be transferred to IPD written in the English language and in a single copy.

1.23 "**Technology**" shall mean Materials, Technical Information and Technical Assistance.

1.24 "**Technology Transfer**" shall mean a logical procedure that controls the transfer of any process together with its documentation and professional expertise from development to manufacture or between manufacturing sites. It is a systematic procedure that is followed in order to pass the documented knowledge and experience gained during development and or commercialization to an appropriate, responsible and authorized party. Technology Transfer embodies both the transfer of documentation and the IPD professional expertise, to effectively perform the critical elements of the transferred technology, to the satisfaction of all parties and any applicable regulatory bodies. The specific contents of the Technology Transfer to IPD are detailed in Annex 3.

1.25 "**Technology Transfer Package 1**" shall have the meaning described in Annex 3.

1.26 "**Technology Transfer Package 2**" shall have the meaning described in Annex 3.

1.27 "**Technology Transfer Package 3**" shall have the meaning described in Annex 3.

1.28 "**Territory**" shall mean all low- and middle-income countries, as defined by the World Bank.

1.29 "**Third Party(ies)**" shall mean any party other than a Party to this Agreement.

1.30 "**Workplan**" shall have the same meaning as defined in Section 2.1.

2 TECHNOLOGY TRANSFER

2.1 **MPP** will cause the Technology Transfer to be conducted in accordance with the chronogram as described in Annex 1. Prior to Technology Transfer activities taking place, IPD will receive an introduction to the mRNA technology training provided by Afrigen and associated training material (Introduction to the mRNA Technology Package). WHO will engage with the IPD to discuss requirements for investments and workforce development to enable readiness at the IPD Facilities to receive the Technology Transfer. In addition, WHO and MPP will facilitate access to dedicated biomanufacturing trainings (manufacturing/good manufacturing practice base training) and appropriate tools to allow informed decisions to be taken by IPD.

The Technology Transfer will be offered as sequential packages described in Annex 3:

I. Technology Transfer Package 1, called *"mRNA technology for R&D"* (hands-on and mandatory) will be made accessible once Phase 1 Clinical trial material is manufactured and released.

II. Technology Transfer Package 2, called *"mRNA technology industrial scale process*" – industrial implementation (including analytics validated) will be made accessible once the manufacturing process is validated.

An Interim Technology Transfer Package 2a, called *"mRNA technology scaled-up process (including analytics) – non-validated*" will be made accessible as soon as the manufacturing process is scaled up at industrial scale and analytical methods are assessed for industrial testing.

III. Technology Transfer Package 3, called *"mRNA technology industrial scale process*" – Marketing

Authorisation Application ("**MAA**") dossier (including MAA submission package and Clinical trial Phase III results) will be made accessible once the Phase III clinical trial results is made available and the complete MAA dossier submitted.

The Parties will meet and confer following the Effective Date to agree on a workplan setting out the timeline for the delivery of the Technical Transfer Packages and specific access to Technology Transfer Package 2 (and Interim Technology Transfer Package 2a) and Technology Transfer Package 3, as well as detailing actions, reporting, deliverables, and success criteria linked to the Technology Transfer (the "**Workplan**").

2.2 Each Technology Transfer Package shall be considered complete by the Parties when IPD has received the Technology (and any other relevant IP) and the Parties are satisfied that the production of the selected mRNA vaccine candidate meets the requirements outlined in the Workplan.

2.3 As part of Technology Transfer Package 1, MPP will, on dates to be agreed to by the Parties, cause Afrigen to provide Technical Assistance to IPD, as follows:

(a) Training at Afrigen's site by sending qualified IPD personnel to the Afrigen site for training on documentation and manufacturing process and analytics.

(b) Training on-site as described in Section 2.3(a) will be for a period of no more than ten consecutive Business Days.

(c) Respond in a reasonable timeframe to any query concerning the Technology Transfer Package 1 that might arise during and after the on-site training.

(d) Should any additional on-site Technical Assistance (e.g. on-site assistance of Afrigen personnel at the IPD Facility, and additional on-site training at Afrigen) be requested by IPD beyond Sections 2.3(a)-2.3(c), IPD shall bear all allowance, travel and accommodation expenses incurred.

2.4 As part of the Technology Transfer Package 2, Technical Assistance to IPD will be provided, as follows:

(a) Responding in a reasonable timeframe to any query concerning the Technology Transfer Package that might arise after the relevant Technical Information is shared with IPD and until Technology Transfer completion.

(b) Should any additional Technical Assistance or training (e.g. on-site assistance at IPD or at Afrigen site) be requested by IPD beyond Section 2.4(a), IPD might have to bear all allowance, travel and accommodation expenses incurred.

2.5 Any additional services associated therewith and the means of delivery thereof not provided for in this Agreement shall, as the need for same arises (e.g. assist in data analysis, non-routine investigations), be negotiated for and agreed to by the Parties in writing, prior to implementation thereof.

3 OBLIGATIONS OF MPP

MPP undertakes to:

3.1 Work with WHO to assess IPD capabilities and identify actions and deliverables for the Technology Transfer to IPD to proceed, as well as to convene appropriate expertise to support Technology Transfer to IPD, as feasible and may be necessary.

3.2 Ensure IPD is provided with the Technology necessary to fulfil the transfer of Technology Transfer Package 1, Technology Transfer Package 2 and Technology Transfer Package 3 as contemplated in Annexes 1 and 3 herein.

3.3 Work with WHO to facilitate the strengthening of the Relevant Regulatory Authority as may be required in IPD territory(ies) to enable Regulatory Approval of the vaccine and facilitate WHO pre-qualification.

3.4 Provide IP analysis on the Technology, as practicable and appropriate.

3.5 Monitor the activities of IPD and the parties to other Programme Agreements to ensure good coordination and facilitate the sharing of data, Know-How and IP as provided for in this Agreement and other Programme Agreements within the agreed timeframes.

4 OBLIGATIONS OF IPD

IPD undertakes to:

4.1 Exercise due diligence in performing the actions and deliverables presented in the Chronology (Annex 1), as further detailed in the Workplan, and in the Scope of Work (Annex 4).

4.2 Provide:

(a) technical reports to MPP, in a form provided by MPP, detailing the progress made towards achieving the milestones defined in the Workplan and a final technical report upon the completion of all the activities set forth in the Workplan; and

(b) financial and technical reports to MPP detailing the financial spending and progress made towards completing the activities defined in the Scope of Work as specified in Section 7.

IPD agrees that such reports will be treated as Confidential Information, but that they will be shared with WHO, Funders, and any other Third Party as may be agreed between the Parties under confidentiality obligations no less stringent than contained in this Agreement.

4.3 Use best endeavours to conduct appropriate facility upgrades, equipment procurement and qualification, receive applicable approvals from the Relevant Regulatory Authority and perform any other activity reasonably necessary to ensure that the Facility is fit for the purposes of receiving the Technology at the time of Technology Transfer.

4.4 Ensure that all IPD personnel involved with the Technology Transfer be sufficiently qualified to as to ensure an efficient and effective Technology Transfer.

4.5 In the event that IPD develops and commercialises a Product that is responsive to a Public Health Emergency of International Concern as declared by WHO, to as soon as practically possible make available no less than ten percent of its real-time production capacity of Product for WHO and/or Public Sector Agencies at a price to be negotiated in good faith, but in no event to exceed its Cost of Production plus a twenty percent mark-up.

4.6 In the event that IPD uses the Technology to commercialise a Product, file for WHO Pre-Qualification or Emergency Use Listing, if available and appropriate.

5 PROJECT MANAGEMENT

The Parties will form a joint project management committee (the "**Project Committee**") to oversee and facilitate the implementation and execution of the Project and Funded Project, to receive and review technical reports, and to review proposed changes to the Project or Funded Project scope, timeline and/or budget. Each Party will have the right to designate its representatives (which may be consultants or advisers subject to the relevant terms and conditions set out herein) to the Project Committee and may replace its representatives upon notice to the other Party. The Project Committee may meet virtually or in person at mutually agreeably times and locations. All decisions at the Project Committee shall be taken unanimously. In the event the consensus cannot be reached, the matter shall be submitted to the executive director of each Party and in case the issue remains unsolved for 3 months from its first referral, the matter shall be resolved in

accordance with Section 18.

6 GRANT PAYMENT AND USE OF FUNDS

6.1 Subject to the terms and conditions of this Agreement, and IPD's compliance therewith, MPP will fund IPD for performing the Funded Project in accordance with the approved budget as set out in Section 1 of Annex 5 ("**Budget**"). The maximum amount shall not exceed the total amount of grant as set out in Section 1 of Annex 5 ("**Grant**"). Subject to Section 11.2, MPP shall have the right to increase or decrease the total Grant in accordance with the needs and the performance of the Funded Project.

6.2 The funds provided under this Agreement are to be spent by IPD exclusively in accordance with the Budget. IPD shall have the right to perform Budget revisions on a quarterly basis. IPD shall request MPP's prior written approval if there is a variance of +/- 10% between the main budget categories. Any request for Budget modification must include sufficient documentation to justify such request. For the avoidance of doubt, no Budget revision or variance of the Budget's categories that is permitted under this Section 6.2 shall result in IPD spending in excess of the total Grant. Any overspending on Budget will be at the cost of IPD, unless otherwise agreed between the Parties.

6.3 MPP shall make payments of the Grant to IPD in accordance with the payment schedule set out in Section 2 of Annex 5 ("**Payment Schedule**"). MPP shall pay the amounts in accordance with the Payment Schedule within 30 days from the completion of the relevant milestone of the Payment Schedule via a bank transfer to the IPD account set forth in Section 3 of Annex 5.

6.4 IPD acknowledges and agrees that the Grant is provided to IPD solely for the purposes of IPD performing the activities set out in the Scope of Work. IPD shall enter into the necessary sub-agreements and perform the necessary administrative activities to ensure the performance of the activities set out in the Scope of Work. IPD shall not use the Grant to perform activities outside the Scope of Work unless as otherwise agreed to in writing by the Parties.

6.5 During the Project, IPD shall use the equipment, materials or goods, purchased or generated with the Grant primarily for the purpose of the Project. IPD may use such equipment, materials or goods for purposes other than the Project provided that such use does not interfere with, compete with or delay the Project. If MPP reasonably suspects or becomes aware that IPD's use of such equipment, materials or goods has interfered with, competed with or delayed the Project, upon the request of MPP, IPD shall promptly provide MPP with documentary evidence demonstrating such has not occurred or such has been remedied.

6.6 Title to any equipment, materials or goods purchased or generated with the Grant shall vest in IPD provided IPD uses such in accordance with Section 6.5. Notwithstanding any other provision in this Agreement, if IPD does not use such equipment, materials or goods in accordance with Section 6.5, MPP may direct IPD to sell, donate or otherwise transfer such equipment, materials or goods, and reimburse MPP the fair market value of such, if applicable.

6.7 Without limiting Section 6.6, subject to MPP's prior written consent, during or after the Project, IPD may:

(a) replace or substitute any equipment, materials or goods purchased or generated with the Grant with new or improved equipment, material or goods; or

(b) sell, donate or otherwise transfer any equipment, materials or goods purchased or generated with the Grant, and reimburse MPP the fair market value of such equipment, materials or goods, if applicable.

7 FUNDED PROJECT REPORTING

7.1 IPD will submit to MPP interim and final financial reports in a format agreed with MPP, which shall:

(a) be sent in accordance with the timeline specified in the Annex 5;

(b) be issued in EUROS currency;

(c) contain the comparison between the actual spending of the proportion of the Grant as specified in Annex 5 versus the budgeted amounts;

(d) be certified as complete and accurate by an authorised official of IPD for the activities performed; and

(e) be sent to the address set forth in Annex 5,

("each a **Financial Report**"). All financial payments reported under Section 7.1 shall be provisional and subject to adjustment within the total estimated cost under this Agreement in the event such adjustment is the result of a finding against IPD pursuant to Section 7.6. In addition to the final financial report referred to in this Section 7.1, IPD shall provide to MPP a questionnaire, in a format to be provided by MPP, regarding the use of funds under this Agreement. Such questionnaire shall be filled and then signed by an IPD staff member mutually agreed upon by the Parties.

7.2 IPD shall submit to MPP interim and final technical reports in a format agreed with MPP, which shall:

(a) be sent in accordance with the timeline specified in Annex 5; and

(b) contain a description of the progress on the Project with respect to the actual spending of the proportion of the Grant,

(each a "**Technical Report**").

7.3 MPP shall, within 7 working days after receipt of a Financial Report or Technical Report, review the report and either approve or provide comments on the report. If comments are provided, IPD shall, within 10 working days after the receipt of MPP's comments, prepare a revised report that addresses MPP's comments and re-submit it to MPP for approval.

7.4 MPP and IPD shall repeat the process in Section 7.3 until MPP approves the relevant report. For the avoidance of doubt, no act or omission of MPP in connection with Section 7.3 constitutes deemed approval of a report and approval of a report does not occur until MPP notifies IPD in writing that a report has been approved.

7.5 IPD monitor its spending for the Funded Project and shall maintain supporting documentation for all costs associated with the Funded Project, including records substantiating funds expended with funds provided under this Agreement. All records and documentation related to this Agreement shall be maintained in accordance with applicable laws and regulations and generally accepted accounting principles for a period of five years from completion of the Funded Project.

7.6 MPP or its authorised representative shall have the right to review and audit all costs alleged to have been incurred hereunder and those records required by Section 7.5 at agreed upon times and locations. IPD shall provide MPP with copies of any audit report which presents any instance of noncompliance with laws or regulations relating to the performance or administration of this Agreement. IPD shall also provide copies of any response to any such report and a plan for corrective action. IPD shall maintain a separate accounting cost code specific to this Grant, and all costs and income properly relating to this Grant shall be accounted

for through that cost code. IPD shall ensure that appropriate records are kept supporting the entries made on the cost code.

7.7 IPD shall notify MPP promptly in case of any significant issues in the performance of the Funded Project. MPP, or its nominees and experts, shall have the right to inspect and review the progress of the Funded Project at the location(s) where the Funded Project has been performed, upon reasonable notice and at mutually agreeable times and locations. Access to facilities and relevant data shall be made reasonably available when such inspections are conducted. Inspections by MPP shall be conducted in a manner as to not unduly delay the progress of the Funded Project or any other activities of IPD.

8 GRANT OF LICENCE AND INTELLECTUAL PROPERTY

8.1 Subject to the terms and conditions of this Agreement MPP hereby grants to IPD:

(a) a non-exclusive, royalty-free, sublicensable, non-transferable (save for transfers to an Affiliate of IPD), perpetual, irrevocable (non-terminable), fully paid-up, royalty-free licence under the Technology, the Afrigen Rights and the Biovac Rights to make, or have made, use, modify, develop, exploit, distribute, offer for sale, sell, have sold, export or import Product(s) in the Territory; and

(b) a non-exclusive, royalty-free, sublicensable, non-transferable (save for transfers to an Affiliate of IPD), perpetual, irrevocable (non-terminable), fully paid-up, royalty-free licence under any Inventions and any other data, IP, or Know-How to which MPP has or will acquire licensable or sublicensable rights from other Programme Agreements for the sole purposes of fulfilling the IPD's mission to facilitate the development and equitable access of health technologies in the Territory.

8.2 IPD grants to MPP a non-exclusive, non-transferable, but sublicensable (solely to WHO or to any other Third Party who is a party to another Programme Agreement solely for purposes of the same Project as set out under that other Programme Agreement), perpetual, irrevocable (non-terminable), fully paid-up, royalty-free, worldwide licence to practice and have practiced the Inventions owned by IPD for the sole purposes of fulfilling its mission to facilitate the development and equitable access of health technologies in the Territory. In the event that MPP wishes to make such Inventions available for other purposes, MPP and IPD will enter into good-faith negotiations. IPD agrees to provide to MPP a licence in relation to any of its background rights only to the extent necessary to enable the use and exercise of the Inventions made by IPD hereunder.

8.3 In the event that IPD is provided with access to Third Party IP for the purposes of research, development and/or commercialization of Product(s), on request by MPP and where MPP reasonably needs access to any material Third Party IP, IPD undertakes to use reasonable efforts to negotiate a licence to MPP for such material Third Party IP under the same or similar terms as provided for in Section 8.2 herein.

8.4 MPP shall have the right to share any data generated under the Project with WHO for further sharing with any Third Parties for the purposes of fulfilling its mission to facilitate the development and equitable access of mRNA technologies in the Territory.

9 EXCHANGE OF INFORMATION AND CONFIDENTIALITY

9.1 Each Party shall hold the Confidential Information disclosed to it under or in connection with this Agreement in strict confidence, and shall not use such Confidential Information for any other purpose than the performance of this Agreement. For the avoidance of doubt, nothing in this Section 9 shall prejudice the licences granted under Section 8.

9.2 The Party that releases, exchanges, or discloses Confidential Information (the "**Disclosing Party**") shall use reasonable efforts to mark such Confidential Information as "Confidential". In

the event that Confidential Information is disclosed and not so marked, the receiving Party agrees to treat such information as confidential to the extent that a reasonable person would consider such information to be confidential given the content and circumstances of the disclosure.

9.3 Neither Party shall disclose any Confidential Information received from the other Party under or in connection with this Agreement, or otherwise developed by any Party in the performance of activities in furtherance of this Agreement, except to such of its officers, employees, agents, representatives, Affiliates, advisors and consultants, and governing bodies to whom disclosure is necessary to exercise the Party's rights or perform the Party's obligations under this, and who are bound by confidentiality and non-use obligations no less onerous than those contained in this Section 9.

9.4 The obligations in Sections 9.1, 9.2 and 9.3 shall not apply to the following as established by reasonable, written proof:

(a) information which at the time of disclosure is in the public domain; or

(b) information which, after its disclosure, becomes part of the public domain by publication or otherwise, except by breach of this Agreement; or

(c) information that a Party can demonstrate was lawfully possessed by it prior to disclosure under or in connection with this Agreement; or

(d) information that a Party receives from a Third Party which is not legally prohibited from disclosing such information; or

(e) information a Party is required by law to disclose, provided that the other Party is promptly notified of any such requirement (unless prohibited by law): or

(f) information which is independently developed by the receiving Party or its Affiliates who had no knowledge of the Disclosing Party's Confidential Information.

9.5 If a receiving Party becomes obligated by law to disclose Confidential Information received under or in connection with this Agreement, or any portion thereof, to any Third Party, governmental authority or court, that Party shall (unless prohibited by law) immediately notify the Disclosing Party of each such requirement and identify the Confidential Information to be disclosed so that such Disclosing Party may seek an appropriate protective order or other remedy with respect to narrowing the scope of such requirement and, to the extent necessary, waive the receiving Party's compliance with the confidentiality obligations of this Agreement.

9.6 The Parties acknowledge that disclosure of any Confidential Information in breach of this Agreement could give rise to irreparable injury to the non-breaching Party and that such injury will not be adequately compensated by damages. Accordingly, the non-breaching Party shall be entitled to the remedies of specific performance and injunctive relief or other equitable relief for any threatened or actual breach of this Section 9. Such relief shall be in addition to all other remedies available to the non-breaching Party at law or in equity.

9.7 All Confidential Information shall remain the property of the Disclosing Party. In the event that a court or other legal or administrative tribunal of competent jurisdiction, directly or through an appointed master, trustee or receiver, assumes partial or complete control over the assets of a Party to this Agreement, based on the insolvency or bankruptcy of such Party (or based on any other analogous or similar status of that Party under foreign laws), the bankrupt or insolvent Party shall promptly notify the court or other tribunal:

(a) that Confidential Information remains the property of the Disclosing Party; and

(b) of the confidentiality obligations under this Agreement.

9.8 Notwithstanding any other provision of this Agreement, the Parties shall have the right, at any time during or after the term of this Agreement, to use ideas, concepts and Know-How contained in or derived from Confidential Information received under or in connection with this Agreement that are acquired and retained solely in the unaided memories of the Parties' officers, employees, agents, representatives, Affiliates, advisors and consultants who have had access to the Confidential Information under this Agreement.

10 AUDIT

In addition to the audit rights in Section 7.6, MPP or its authorized representative will have the right to audit IPD's compliance with Sections 4.5 and 8.2 of this Agreement. IPD will be required to keep accurate records to allow MPP or its authorized representative to adequately conduct such audit.

11 TERM AND TERMINATION, SURVIVAL

11.1 This Agreement shall be deemed to come into effect on the Effective Date and shall continue for seven years.

11.2 In the event the Funders reduce the funding for the Funded Project, the Parties will enter into good faith negotiations to determine if the Funded Project can be completed as originally anticipated or its scope must be modified. In the event of insufficient funding and the Parties cannot agree to a modified Scope of Work and Budget reasonably acceptable to the Funders, MPP may suspend this Agreement immediately. In the event of suspension of the Funded Project, IPD will immediately cease incurring expenses and take every reasonable measure to cancel outstanding expenses. In the event Funders discontinue support of the Funded Project, or if funding is reduced to the extent that MPP, in consultation with IPD, determines it is not practicable to continue funding the Funded Project, MPP may terminate this Agreement effective immediately upon notice. In such event, to the extent funds are allowable by and available from Funders, MPP shall pay reasonable and allowable costs incurred up to and including the effective date of termination, and for reasonable and allowable non-cancellable obligations made consistent with the Budget prior to Spoke's receipt of notice of termination.

11.3 MPP may suspend this Agreement immediately if its Funders reduce or fail to provide funding for the Project. In the event support of the Project is discontinued or is reduced to the extent that MPP, in its sole discretion, determines it is not practicable to continue the Project, MPP may terminate this Agreement effective immediately upon notice.

11.4 Save as otherwise provided in this Agreement, if IPD breaches any provision of this Agreement and if such breach is material and (i) is incapable of correction; or (ii) is capable of correction but is not corrected within thirty (30) days after IPD receives written notice from MPP specifying the breach requiring it to be remedied, MPP shall have the right to terminate this Agreement with immediate effect by giving written notice to the Party in default.

11.5 Termination or expiry of this Agreement shall not affect those provisions of this Agreement which are expressly or by implication intended to survive the termination or expiration of this Agreement, including but not limited to Sections 4.5, 8.1, 8.2, 8.3, 8.4, 9 and 10. In addition, any other provisions required to interpret and enforce the Parties' rights and obligations under this Agreement shall also survive, but only to the extent that such survival is required for the full observation and performance of this Agreement by the Parties.

11.6 Termination of this Agreement in accordance with the provisions hereof shall not limit remedies which may be otherwise available in law or equity and shall be without prejudice to any rights that any person may have pursuant to this Agreement for antecedent breaches.

11.7 Upon termination prior to the end of the Funded Project pursuant to Section 11 hereof, IPD shall return all funding received from MPP under this Agreement which is unspent at the date of termination (after deduction of costs and non-cancellable commitments incurred prior to the date of termination).

12 WARRANTIES, INDEMNITIES, COMPLIANCE WITH LAW

12.1 Each of the Parties warrants that, to the best of its knowledge and belief:

(a) it has power to execute and deliver this Agreement and to perform its obligations under

it and has taken all action necessary to authorise such execution and delivery and the performance of such obligations; and

(b) this Agreement constitutes legal, valid and binding obligations of that Party in accordance with its terms.

12.2 Except as otherwise expressly provided in this Agreement, MPP does not make any representations or warranties, express or implied with respect to the Technology, Afrigen Rights or Biovac Rights, including, without limitation, any express or implied warranties of merchantability or fitness for a particular purpose with respect to such Technology, Afrigen Rights or Biovac Rights. MPP does not give any warranty, express or implied, with regard to the safety or efficacy of any Product(s) and it shall be the sole responsibility of IPD to ensure such safety or efficacy. Furthermore, nothing in this Agreement shall be construed as a warranty that IPD's use of the Technology, Afrigen Rights or Biovac Rights will not infringe any patent rights or other IP of any Third Party, or that MPP's use of (i) the Inventions licensed to it under Section 8.2 or (ii) Third Party IP pursuant to Section 8.3 will not infringe any IP of any Third Party.

12.3 The Parties hereby agree to indemnify one another and its respective officers, directors, shareholders, representatives, agents, employees, successors and assigns (each an "**Indemnified Person**") against any and all suits, claims (whether or not successful, compromised or settled), actions, demands, proceedings, judgments, liabilities, expenses and/or losses, including reasonable legal expense and attorneys' fees ("**Losses**"), that arise in connection with (i) a third party claim made against such Indemnified Person as a result of a Party's breach of this Agreement; or (ii) a Party's exercise of its rights pursuant to this Agreement (including for the avoidance of doubt, in respect to MPP, any product liability claim relating to the Product(s) manufactured by or on behalf of IPD), provided that the indemnification obligation established in this Section 12.3 shall not apply to the extent such Losses arise out of negligence or wilful misconduct by the other Party that is the Indemnity Person or its respective officers, directors, shareholders, representatives, agents, employees, successors and assigns. No Party shall be liable to the other Party for any indirect, incidental, consequential, reliance or special damages, including a loss of profit, in connection with this Agreement for any reason whatsoever and howsoever arising. Each Party undertakes to provide the other Party with prompt written notice of a claim under this Section 12.3. The Parties will agree on the appropriate Party to assume control of the defence or negotiation of settlement and will agree to make available all reasonable assistance in defending any claims.

12.4 IPD represents and warrants that it respects the human rights of its staff and does not employ child labor, forced labor, unsafe working conditions, or cruel or abusive disciplinary practices in the workplace and that it does not discriminate against any workers on any ground (including race, religion, disability, gender, sexual orientation or gender identity) and aims to achieve greater equity along those lines in the workplace; and that it pays each employee at least the minimum wage, provides each employee with all legally mandated benefits, and complies with the laws on working hours and employment rights in the countries in which it operates.

12.5 IPD commits to contribute to an inclusive manufacturing sector by ensuring adequate gender responsiveness and to empower women as key players, including promoting women in decision-making and leadership positions. IPD will emphasize and demonstrate that manufacturing is a fulfilling career choice for women, with ample opportunities, and thereby encourage more women to participate in the sector; provide opportunities for women living in marginalized communities to participate in the manufacturing sector and compete in the marketplace, through proactively targeting those communities; and encourage involved countries to increase health and health security for women living in marginalized communities through ensuring availability of health products in populations which would otherwise not be reached.

12.6 IPD shall be respectful of its employees' right to freedom of association and shall encourage compliance with the standards referred to in Sections 12.4 and 12.5 by any supplier of goods or services that it uses in performing its obligations under this Agreement, subject to any legislation in a territory where it operates.

12.7 IPD shall comply fully at all times with all applicable laws and regulations, including but not limited to any Product's safety, pharmacovigilance, anti-corruption laws, and that it has not, and covenants that it will not, in connection with the performance of this Agreement, directly or indirectly, make, promise, authorise, ratify or offer to make, or take any act in furtherance of any payment or transfer of anything of value for the purpose of influencing, inducing or rewarding any act, omission or decision to secure an improper advantage; or improperly assisting in obtaining or retaining business, or in any way with the purpose or effect of public or commercial bribery, and warrants that it has taken reasonable measures to prevent subcontractors, agents and any other Third Parties, subject to its control or determining influence, from doing so.

12.8 IPD shall manufacture and sell any Products in accordance with all laws and regulations relevant to the manufacture and sale of the Products and in accordance with good industry practice.

13 FORCE MAJEURE

If the performance of any part of this Agreement by any Party, or of any obligation under this Agreement (other than those provisions which in any respect concern the payment under any indemnity or otherwise under this Agreement) is prevented, restricted, interfered with or delayed by reason of any cause beyond the reasonable control of the Party liable to perform (an "**Event of Force Majeure**"), unless conclusive evidence to the contrary is provided, the Party so affected shall, upon giving written notice to the other Party, be excused from such performance to the extent of such prevention, restriction, interference or delay, provided that the affected Party shall use its reasonable endeavours to avoid or remove such causes of non-performance and shall continue performance with the utmost dispatch whenever such causes are removed. If the Event of Force Majeure continues for a period of more than six (6) months, any Party not prevented, restricted, interfered with or delayed or otherwise in terms of performance may terminate this Agreement by providing a written termination notice to the other Party. Without limitation as to the possible types of Event of Force Majeure, an epidemic, pandemic, government collapse, government-imposed isolation or government- imposed quarantine shall be capable of constituting an Event of Force Majeure, provided that the elements of the definition of that term specified in this Section 13 are satisfied.

14 SEVERABILITY

14.1 In the event that any portion of this Agreement is or is held by any court or tribunal of competent jurisdiction to be illegal, void, unenforceable or ineffective, the remaining portions hereof shall remain in full force and effect.

14.2 If any of the terms or provisions of this Agreement are in conflict with any applicable statute or rule of law, then such terms or provisions shall be deemed inoperative to the extent that they may conflict therewith and shall be deemed to be modified to the minimum extent necessary to procure conformity with such statute or rule oflaw.

15 ENTIRE AGREEMENT

15.1 This Agreement constitutes the entire agreement between the Parties relating to the subject matter hereof and supersedes all previous writings and understandings between the parties relating to the transactions contemplated by this Agreement.

15.2 Each Party acknowledges that in entering into this Agreement it has not relied on any representation, warranty, collateral contract or other assurance (except those set out in this Agreement) made by or on behalf of any other party before the date of this Agreement. Each Party waives all rights and remedies which, but for this Section, might otherwise be available to it in respect of any such representation, warranty, collateral contract or other assurance.

16 NO PARTNERSHIP OR AGENCY

Nothing in this Agreement shall be deemed to constitute a partnership between the Parties, nor constitute either Party as the agent of the other Party.

17 EXECUTION

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. For the convenience of the Parties, an executed copy of this Agreement may be transmitted by email in portable document format (PDF), and such .pdf file shall be deemed equivalent to an original.

18 GOVERNING LAW AND JURISDICTION

18.1 This Agreement and any non-contractual obligations arising out of or in connection with it shall be governed by the laws of Switzerland.

18.2 All disputes arising out of or in connection with this Agreement shall be exclusively referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of three arbitrators. The place of arbitration shall be Geneva, Switzerland. The language to be used in the arbitral proceedings shall be English. The foregoing however shall not prevent any Party from seeking and obtaining injunctive relief at any time in any country.

IN WITNESS WHEREOF the Parties, through their duly authorised representatives, have executed this Agreement.

Signed for and on behalf of:
THE MEDICINES PATENT POOL FOUNDATION

Signature: DocuSigned by: Charles Gore 4713D0F59C13482...

Name: Charles Gore

Position: Executive Director

Date: 3/29/2024

Signature: DocuSigned by: Marie-Paule Kieny 331D2E7893C949A...

Name: Marie-Paule Kieny

Position: Chair of the Board

Date: 3/29/2024

Signed for and on behalf of:
INSTITUT PASTEUR DE DAKAR

Signature: DocuSigned by: Amadou Alpha Sall B151FB7ED034403...

Name: Amadou Alpha Sall

Position: Chief Executive Officer

Date: 4/12/2024

LIST OF ANNEXES

ANNEX 1 - Technology Transfer Chronology

ANNEX 2 - Terms of Material Transfer

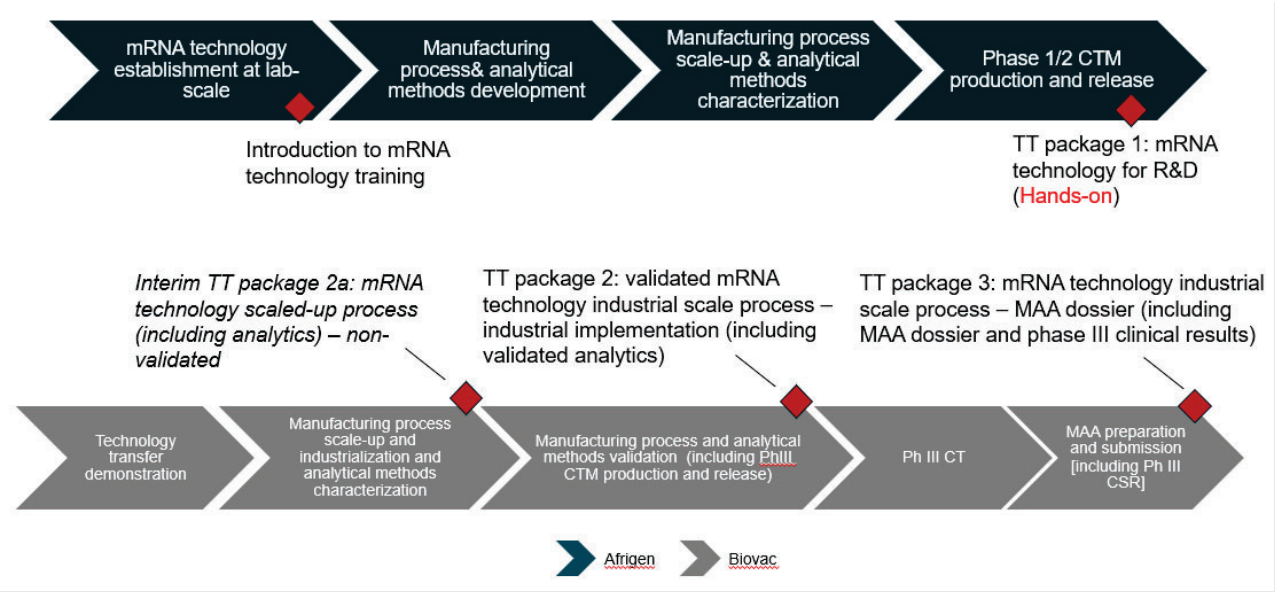
ANNEX 3 - Technology transfer Package1, Package 2 and Package 3 content

ANNEX 4 –Funded Project Scope of Work and Key personnel

ANNEX 5 – Budget, Payment Schedule, Reporting

ANNEX 1

Technology Transfer Chronology



ANNEX 2

Terms of Material Transfer

1. **MPP** shall ensure **Afrigen** will transfer to **IPD** 2 vials of GMP Master Cell Bank (MCB) and, as soon as available, 10 vials of the GMP Working Cell Bank (WCB) of the Material in its possession; the aforementioned material can be used by **IPD** for research and development and commercial purposes in the Commercial Territory with the granted rights provided in the Agreement.
2. **MPP** shall ensure **Afrigen** will provide **IPD** with batch records and certificate of Analysis of the MCB and WCB transferred to **IPD** and with sufficiently detailed operating protocols needed for propagation, identification. characterization and release testing of batches derived from the Material provided. **IPD** will be responsible for the validation and the manufacturing of their own GMP WCBs.
3. MPP shall ensure **Afrigen** will provide **IPD** Quality Control Standards and comparators (materials or information for procurement from commercially available sources as appropriate) and primary and secondary Controls (materials or information for procurement from commercially available sources as appropriate). Detailed list including sources and amounts will be included in the Workplan.

ANNEX 3

Technology transfer Package1, Package 2 and Package 3 content

PACKAGE 1

Package 1 shall include:

- Technology Transfer Technical Information Package 1 (content listed below)
- Technical assistance (as defined in section 2.3 of this agreement)
- Materials (detailed in Annex 2)

Technology Transfer Technical Information Package 1 content:

1. Drug substance (mRNA), bulk drug product (encapsulated mRNA) and final drug product manufacturing instructions (thus including manufacturing process flows, in-process and final Quality Control flows, Waste flows, Hold points, process mass balances and personnel flow).
   NOTE: Expected scale of production at Afrigen: plasmid (20-30L); mRNA IVT (1-5L), LNP concentrated (2-15L).
2. Analytical procedures to test Raw materials (including identity tests used for Phase I and justification of tests methods required for Phase III) and products (including release and in-process assays either qualified or pre-validated) and packaging specifications (including container closure test reports for -20 C final packaging and specifications of vials, caps and stoppers).
3. Reference and supplier of raw materials, consumables and equipment.
4. Materials as listed in Annex 2 of this agreement.
5. Process development support data capturing key experience/product knowledge:
   i. Detailed equipment list with specifications covering the entire manufacturing process.
   ii. Cell History, batch record and analytical results.
   iii. Process development report that also outlines the manufacturing process rationale. It includes:
      - technical reports (including analytical assessment reports, stability reports, detailed non-clinical and pre-clinical reports and, if applicable, cleaning verification data and reports);
      - potential critical manufacturing process parameters/steps;
      - the success (or failure) of the technology implementation in Afrigen;
      - a history or evolution of the process through the Phase I clinical stage of development.
   iv. Batch record and analytical results of pivotal batches (preclinical/engineering/clinical batches) and technical interpretation of the results.
   v. Appropriate comparison between preclinical/engineering/clinical batches.
   vi. Rationale for proposed specifications for Phase I.
   vii. Available stability data.
   viii. Submitted Clinical Trial Application sections (including all Chemistry, Manufacturing and Controls documentation) and Phase 1 Clinical Study Report (CSR), when available.

PACKAGE 2

Package 2 shall include:

- Technology Transfer Technical Information Package 2 (content listed below)
- Technical Assistance (as defined in section 2.4 of this agreement)

Technology Transfer Technical Information Package 2 content:

1. Working Cell Bank, DNA, Drug substance (mRNA), bulk drug product (encapsulated mRNA) and drug product production processes.
2. Analytical procedures (Raw materials, product and packaging specifications).
3. Reference and supplier of raw materials, consumables and equipment.
4. Process development support data capturing key experience/product knowledge:
    i. Cell History, batch record and analytical results.
    ii. Process development report that outlines the manufacturing process rationale. It includes:
        - scale up studies (if required);
        - large scale process characterization study results;
        - robustness study results;
        - critical manufacturing process parameters/steps;
        - validation reports;
        - the success (or failure) of the industrial technology development.
    iii. History or evolution of the process and comparison along the product development from phase I to phase III.
    iv. Rationale for proposed specifications for Phase III.
5. Whole process analytical validation documentation, including:
    - process capability;
    - rework procedure;
    - process control;
    - trend summaries;
    - process variations and the investigation of those variations;
    - follow-up actions, rationale and summary of reworked product.

    Description (batch/trial number, purpose, lineage, size, results, comments) and identification (clinical/bio-equivalency/ICH - dossier/application stability) of all pivotal batches should be included.

6. Comparison between Receiving Unit (Biovac) confirmation batches and sending unit (AFRIGEN) reference pivotal batches demonstrating comparability (DP specifications met), including non-clinical and pre-clinical study results.
7. History of critical analytical data (e.g., release and stability data) rationale for proposed specifications.

Interim Technology Transfer Technical Information Package 2a shall include:

1. Research Cell Bank, plasmid amplification (pDNA) at 20-30 L scale, Drug substance (mRNA) at 10-20L, bulk drug product (encapsulated mRNA) processes.
2. Analytical procedures (Raw materials, product and packaging specifications) in place, pre-validated.
3. Reference and supplier of raw materials, consumables and equipment.
4. Process development support data capturing key experience/product knowledge:
    i. Cell History, batch record and analytical results.
    ii. Process development report that outlines the pDNA and mRNA manufacturing process rationale. It includes:
        - scale up for mRNA production process/scale down studies for plasmid production if VRC process received at larger scale;
        - large scale process characterization study results (as described above)
        - robustness study results;
        - critical manufacturing process parameters/steps;
    iii. Process development report (PDR) on evolution and rationale of the pDNA and mRNA process and comparison along the product development from phase I to scale up.
5. Qualified analytical documentation, including:
    - Assessment reports;
    - reworked analytical procedure;
    - trend summaries (where applicable);
    - process variations and the investigation of those variations.
6. Batch record and analytical results of pivotal batches (preclinical/at scale technical batches) and technical interpretation of the results.
7. Screening stability results.
8. Appropriate comparison between preclinical (at Afrigen) and scale-up batches (at Biovac).

PACKAGE 3

Package 3 shall include:

Marketing Authorization Application dossier Sections II-V (named as per ICH guidelines) – including summaries and quality, non-clinical and clinical information data packages as required by the National Regulatory Authority where the dossier was submitted.

ANNEX 4
Funded Project Scope of Work and Key Personnel

1. FUNDED ACTIVITIES DESCRIPTION:

IPD is a Partner of the mRNA Technology Transfer Progamme convened by WHO and MPP. In the context of its Participation in the Programme, IPD has decided to establish mRNA R&D capacities in Dakar in a facility that is being repurposed for this specific objective. IPD is building capacities to implement the processes for the production of Drug Substance (DS, mRNA) and bulk Drug Product (DP, mRNA formulated in Lipid Nanoparticles) and the Analytical methods needed for the in-process testing of DS and DP and release of the final DS, DP and filled DP as developed by Afrigen (SARS CoV-2 spike protein sequence of Wuhan strain used as proof of concept mRNA).

To enable the implementation of these activities, IPD will procure all the equipment needed to manufacture and test DS and DP as listed in the documentation provided by Afrigen and included in the tables included in Annex 5.

This equipment will be used by IPD to produce and test batches spanning from small scale Proof of Concept batches up to technology transfer demonstration batches. The equipment will be subsequently used by IPD to conduct development activities on other vaccine candidates by using the mRNA technology.

2. KEY ASSUMPTIONS:

Timelines: IPD is refurbishing laboratories that will be dedicated to mRNA R&D activities in its campus in Dakar Plateau. This is the laboratory where the equipment listed in Annex 5 below will be installed. The laboratory readiness is on the critical path for the implementation of the activities related to the mRNA R&D capacities development. The timeline of the activities is built on the assumption that the laboratory will be ready by June 2024, the equipment delivered in June/July 2024 and installed in July/August 2024.

Budget, shipment costs: was estimated as 10% of the total value of the equipment.

3. PARTNER ACTIVITIES

IPD shall perform the activities set out in the table below.

KEY ACTIVITIES		TIMEFRAME
Activity 1:	**Procurement and installation of equipment**	
1.1	Order the equipment contained in Section 5, Annex 5 below	Dec 2023- May 2024
1.2	Equipment shipment	Jun – Aug 2024
1.3	Equipment reception, installation and IQOQ in the IPD lab in Dakar	Jun – Aug 2024
1.4	Training on purchased equipment.	Jun – Aug 2024

4. KEY PERSONNEL

A. IPD:

I. Dr Marie-Angélique SENE – MarieAngelique.SENE@pasteur.sn
II. Myriam Grubo – myriam.grubo@pasteur.sn
III. Dr Anna SECK – Anna.SECK@pasteur.sn

B. MPP:

I. Ike James - james@medicinespatentpool.org

II. Monica Moschioni – mmoschioni@medicinespatentpool.org
III. Julien Bon – jbon@medicinespatentpool.org
IV. Landry Bertaux –lbertaux@medicinespatentpool.org
V. Antonio Grilo - agrilo@medicinespatentpool.org