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Exhibit 10.20

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions.

CONFIDENTIAL **EXECUTION VERSION**

Collaboration and License Agreement

This Collaboration and License Agreement is executed on June 8, 2018 (the "**Execution Date**") by and between Translate Bio MA, Inc., with offices at 29 Hartwell Ave, Lexington, MA 02421, USA., a corporation registered under the laws of the State of Delaware ("**Translate Bio**" or "**TB**") and Sanofi Pasteur Inc.**,** a company incorporated under the laws of the state of Delaware, with offices at Discovery Drive, Swiftwater, PA 18370 USA ("**Sanofi**"). Sanofi and Translate Bio are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

Whereas: Translate Bio and its Affiliates have experience in and own or control certain mRNA technologies which it wishes to license to Sanofi under the terms set out herein.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and intending to be legally bound, the Parties agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" means, with respect to a Person, any Person which controls, is controlled by or is under common control with such first Person. For purposes of this definition, "control" means the actual power, either directly or indirectly through one or more intermediaries, to direct or cause the direction of the management and policies of such Person, whether by the ownership of more than fifty percent (50%) of the securities of such Person entitled to be voted generally or in the election of directors of such Person, or by contract or otherwise; *provided*, *however*, that with respect to Translate Bio any portfolio operating company of any stockholder of Translate Bio (which stockholder is a venture capital fund or private equity fund) shall be deemed not to be "under common control with" Translate Bio.

1.2 "**Agreement**" means this Collaboration and License Agreement, including any Schedules attached hereto and any document incorporated by reference herein and any future amendments hereto.

1.3 "**Alliance Manager**" has the meaning set forth in Section 2.9 (Alliance Managers).

1.4 "**Ancillary Agreement**" means the Supply Agreement, the Quality Agreement, a Pharmacovigilance Agreement, Escrow Agreement and any other ancillary agreement entered into by the Parties in connection with this Agreement.

1.5 "**cGMP**" means that part of quality management which ensures that products are consistently produced and controlled to the quality standards appropriate to their intended use and as required (as applicable) for clinical testing, or by any applicable Market Approval or

product specification as defined in the relevant International Conference on Harmonization Guidance (ICH), as amended or superseded from time to time, and such other principles of good manufacturing practice as are required by the Governmental Authorities of the European Union, the US and other organizations and governmental agencies in countries in which the applicable Product is intended to be manufactured or, following receipt of Market Approval, sold.

1.6 "**Change of Control**" means, with respect to with respect to either Party, (a) any sale, exchange, transfer, or issuance to or acquisition by one or more Third Parties of shares representing more than fifty percent (50%) of the aggregate ordinary voting power entitled to vote for the election of directors represented by the issued and outstanding stock of such Party or any Affiliate that directly or indirectly controls (as defined in Section 1.1) (such Affiliate, a "**Parent**" of such Party) , whether such sale, exchange, transfer, issuance or acquisition is made directly or indirectly, beneficially or of record or in one transaction or a series of related transactions, but excluding the issuance of shares in financing transactions, including any venture capital financing or any public offering; (b) a merger or consolidation under applicable Law of such Party with a Third Party in which the shareholders of a Party or such Parent immediately prior to such merger or consolidation do not continue to hold immediately following the closing of such merger or consolidation at least fifty percent (50%) of the aggregate ordinary voting power entitled to vote for the election of directors represented by the issued and outstanding stock of the entity surviving or resulting from such consolidation; or (c) a sale or other disposition of all or substantially all of the assets of such Party to which this Agreement relates to one (1) or more Third Party in one transaction or a series of related transactions.

1.7 "**Closing**" has the meaning set forth in Section 17.22.

1.8 "**Closing Date**" has the meaning set forth in Section 17.22.

1.9 "**CMC**" means chemistry, manufacturing and controls and includes the term "**Pharmaceutical Quality/CMC**".

1.10 "**Collaboration**" has the meaning set forth in Section 2.1.

1.11 "**Collaboration Budget**" means the budget prepared jointly by the Parties to reflect the costs of the Translate Bio Collaboration Activities set forth in the Collaboration Plan, which shall consist of (a) FTE Costs to be reimbursed by Sanofi in accordance with Section 7.1 (Collaboration Funding), (b) Out-Of-Pocket Costs, and (c) Manufacturing Costs incurred by Translate Bio for the Translate Bio Collaboration Activities, which shall be funded by Sanofi in accordance with Section 7.1 (Collaboration Funding). An initial Collaboration Budget is attached hereto as Schedule 1.11 (Collaboration Budget). The Parties shall update the Collaboration Budget annually in accordance with Section 3.1.2.

1.12 "**Collaboration Plan**" means (a) with respect to Products in each Licensed Field, the plans for the execution of certain research, development, regulatory and manufacturing activities which the Parties have allocated between them with respect to such Products in such Licensed Field during the Collaboration Term as described in Parts 2 through 4 of Schedule 1.12, and also (b) with respect to activities directed to [**] for vaccines which activities are directed to Products in the Licensed Fields but not specific to Products in any particular Licensed Field and

such other activities as described in Part 1 of Schedule 1.12 ("**Vaccine Platform Development**"), which plan provides for the execution of such activities which the Parties have allocated between them during the Collaboration Term. An initial Collaboration Plan for each Licensed Field and for the Vaccine Platform Development is attached hereto as Schedule 1.12 (Collaboration Plan). The Parties shall update the Collaboration Plans annually in accordance with Section 3.1.2.2.

1.13 "**Collaboration Know-How**" means Know-How first developed during and in performance of the Collaboration by any Party and/or its Affiliates and/or its Service Providers, in whole or in part, using or incorporating (a) Licensed Technology and/or (b) Licensed Improvements.

1.14 "**Collaboration Materials**" means Materials first developed during and in performance of the Collaboration by any Party and/or its Affiliates and/or its Service Providers, in whole or in part, using or incorporating (a) Licensed Technology and/or (b) Licensed Improvements.

1.15 "**Collaboration Patents**" means Patents filed in respect of inventions conceived during and in performance of the Collaboration by any Party and/or its Affiliates and/or its Service Providers which invention, in whole or in part, was conceived using or which incorporates (a) Licensed Technology and/or (b) Licensed Improvements.

1.16 "**Collaboration Technology**" means collectively the Collaboration Know-How, Collaboration Materials and Collaboration Patents.

1.17 "**Collaboration Term**" has the meaning set forth in Section 2.2.

1.18 "**Combination Product**" means any product intended for more than one disease indication, containing at least one Product in combination with at least one other vaccine product that is not a Product.

1.19 "**Commercially Reasonable Efforts**" means (a) with respect to Sanofi, on a market-by-market basis for a given Product, that measure of efforts, consistent with [**]; and (b) with respect to Translate Bio, that measure of efforts and resources, consistent with [**].

1.20 "**Confidential Information**" has the meaning set forth in Section 13.1 (Confidentiality; Exceptions).

1.21 "**Confidential Disclosure Agreement**" has the meaning set forth in Section 17.7.

1.22 "**Control**" means, in relation to any tangible or intangible property (*e.g.*, Know-How, Patent, Material, copyright, trademark or right), the possession by a Party or any of its Affiliates, whether by ownership (whether sole or joint), license grant or other means (other than a license granted to it pursuant to this Agreement) of the legal right to grant the right to access or use, or to grant a license or a sublicense to, such tangible or intangible property to such other Party as set forth herein (a) without violating the proprietary rights of any Third Party or any terms of any agreement or other arrangement between such Party (or any of its Affiliates) and any Third Party, and (b) without imposing a payment obligation on the granting or receiving

Party, except to the extent that the receiving Party has accepted the payment obligations thereunder in accordance with Article 11. To the extent that the granting Party has the right to grant the right to access or use, or to grant a license or a sublicense to, such tangible or intangible property to such other Party of less than the full scope of rights set forth herein, such right, license or sublicense shall be granted to the extent such granting Party may grant such right, license or sublicense without violating any applicable Third Party's rights. Notwithstanding the foregoing, Translate Bio shall be deemed to not Control any Licensed Know-How or Licensed Improvement until Sanofi has accepted such Licensed Know-How in accordance with Section 1.51 or elected to include such Licensed Improvement in accordance with Section 6.4.2.

1.23 "**Cost Category**" has the meaning set forth in Section 7.1.

1.24 "**Cover**" means, with respect to a Product and a Patent, that, but for the licenses granted herein, the manufacture, use, offer for sale, sale, or importation or other exploitation of such Product would infringe a Valid Patent Claim of such Patent in the country in which such activity occurs (or, in the case of a Valid Patent Claim that has not yet issued, would infringe such Valid Patent Claim if it were to issue).

1.25 "**Derived Patent**" means a Patent filed by a Party or its Affiliate or Sublicensee which (i) claims Licensed Know-How listed in part 1 of Schedule 1.51 (Licensed Know-How) as of the Execution Date or as updated from time to time which Licensed Know-How Sanofi has accepted in accordance with Section 1.51, and (ii) which Patent is filed prior to December 23, 2026.

1.26 "**EU**" means the member states of the European Union as of January 1, 2017 and any member state added to the European Union thereafter.

1.27 "**Force Majeure**" has the meaning set forth in Section 17.8 (Force Majeure).

1.28 "**Future Agreement**" means an agreement executed by a Party in accordance with Article 11.

1.29 "**FTE**" means with regards to individuals located in the United States, [**] person hours of effort (and an equivalent number of person hours per applicable labor Laws in countries other than the United States) from one or more employees or contract employees of Translate Bio or any of its Affiliates directly engaged in performing activities under this Agreement. For clarity, sixty (60) minutes of work performed by one employee (or aggregated across multiple employees) on a relevant activity shall be considered one person hour.

1.30 "**FTE Costs**" means the FTE Rate multiplied by the number of FTEs performing activities hereunder.

1.31 "**FTE Rate**" means a rate of [**] U.S. dollars ($[**]) per FTE which is inclusive of salaries, bonus, benefits and overhead.

1.32 "**Governmental Authority**" means any government or supranational administrative agency, commission or other governmental or supranational authority, body, court, tribunal or instrumentality, or any federal, state, local, domestic or foreign governmental or supranational regulatory body.

1.33 "**[**]**" has the meaning set forth in Section 7.6.1.

1.34 "**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

1.35 "**HSR Filings**" means the filings by each Party with the FTC and the DOJ of a Notification and Report Form for Certain Mergers and Acquisitions (as that term is defined in the HSR Act) with respect to the matters set forth in this Agreement, together with all required documentary attachments thereto.

1.36 "**[**]**" means [**].

1.37 "**IFRS**" means the then-current International Financial Reporting Standards, as consistently applied by a Party, its Affiliate or its Sublicensee (as applicable).

1.38 "**Indemnified Party**" has the meaning set forth in Section 15.3 (Claim for Indemnification).

1.39 "**Indemnifying Party**" has the meaning set forth in Section 15.3 (Claim for Indemnification).

1.40 "**Insolvency Event**" means the entry by a Party or an Affiliate of a Party that directly or indirectly controls such Party into liquidation whether compulsory or voluntary (except for the purposes of bona fide reconstruction or amalgamation), or compounds with or makes any arrangement with its creditors or makes a general assignment for the benefit of its creditors, or if it has a receiver, manager, administrative receiver, administrator or similar officer appointed over the whole or substantially the whole of its undertakings or assets, in each case if such liquidation, compounding, arrangement, assignment, or appointment is not vacated, withdrawn, or dismissed within [**] thereafter.

1.41 "**Joint Action**" has the meaning set forth in Section 12.10.1.

1.42 "**Joint Project Team**" or "**JPT**" means the project team established pursuant to Section 2.3 (Governance) to conduct Collaboration activities.

1.43 "**Joint Steering Committee**" or "**JSC**" means the committee established pursuant to Section 2.3 (Governance) to oversee the Collaboration generally, including overseeing the other committees hereunder.

1.44 "**Key Patent Countries**" means collectively [**], and "**Key Patent Country**" means any one of them.

1.45 "**Knowledge**" means, in the case of Translate Bio, the actual knowledge of any of the officers of Translate Bio MA, Inc. or its Affiliates, and in the case of Sanofi, the actual knowledge of any of those Sanofi employees responsible for the negotiation and drafting of this Agreement.

1.46 "**Know-How**" means any technical intangible technique, information, technology, practice, trade secret, invention (whether patentable or not), method, process, knowledge, know-how, conclusion, skill, experience, test data and results (including pharmacological, toxicological, manufacturing and clinical test data and results), regulatory documentation, analytical and quality control data, software or algorithm, database, standard operating procedure, study report, technical document, batch record or other research, development and manufacturing information. Know-How also includes the tangible (*i.e.*, written or electronic) files that record any of the foregoing; *provided, however, that* Know-How does not include (1) Patents, (2) Materials or (3) trademarks and domain names (or any applications or registrations thereof).

1.47 "**Launch**" means with respect to a Product, the date of first shipment or sale of such Product (in either case when Sanofi, its Affiliate or Sublicensee can recognize revenue in accordance with IFRS or GAAP) to a Third Party (other than to an Affiliate or Sublicensee for resale) in such country for end use or consumption of the Product in such country after Market Approval in such country is obtained or sales are permitted by applicable Law, and excluding, however, any shipment, sale or invoicing or other distribution of the Product for use in (a) a clinical trial, compassionate use, named patient programs, sales under a treatment Regulatory Filing, test marketing, or any non-registrational studies or (b) any similar instance, in each case (a) and (b), where the Product is supplied at or below a Party's cost of goods (or otherwise not for profit) shall not, in each case of (a) or (b), constitute "Launch".

1.48 "**Laws**" means individually and collectively, any federal, state, provincial, local, national and supra-national laws, treaties, statutes, ordinances, executive orders, government decrees, rules and regulations, including any rules, regulations, guidance, guidelines or requirements of any Governmental Authority, that are in effect from time to time during the Term and applicable to a particular activity hereunder.

1.49 "**Licensed Field**" means [**].

1.50 **"Licensed Improvement"** means any Know-How or Materials that are, or any Patent filed claiming, any improvement, modification, refinement, correction, evolution or enhancement of any (i) Licensed Technology or (ii) any Translate Bio Collaboration Technology, made by Translate Bio and/or its Affiliates and/or its Service Providers which is created or conceived outside of the Collaboration after the Execution Date and is necessary or reasonably useful in the development, manufacture, sale or use of any Product in a Licensed Field, *provided*, *however that* "Licensed Improvements" shall not include any Patent, Know-How or Materials which (a) includes or comprises any Third Party technology or (b) are not included in the license under Section 9.1.3 in accordance with Section 6.4.2 or (c) any improvement, modification, refinement, correction, evolution or enhancement of any (i) Licensed Technology or (ii) any Translate Bio Collaboration Technology, in each case made by Translate Bio and/or its Affiliates and/or its Service Providers which is created or conceived more than [**] after the Closing Date.

1.51 "**Licensed Know-How**" means the Know-How Controlled by Translate Bio or any of its Affiliates as of the Execution Date that is necessary or reasonably useful in the development, manufacture, sale or use of any Product in a Licensed Field that has been identified by Translate Bio in writing as its proprietary Know-How, and the use of which by Sanofi (and/or any of its Affiliates) to make, sell or use Products absent the licenses granted herein would constitute unauthorized use by Sanofi (and/or its Affiliates). Schedule 1.51 (Licensed Know-How) lists in part 1 the Licensed Know-How acquired by Translate Bio from Shire per the Shire Agreement and in part 2 Licensed Know-How independently developed by Translate Bio following the Closing (the terms "Closing" as used in this Section 1.51 has the meaning as defined in the Shire Agreement) and prior to the Execution Date, which will be updated from time to time by Translate Bio, as appropriate. No item listed on Schedule 1.51 shall be considered Licensed Know-How hereunder until (1) Translate Bio has provided sufficient detail in writing regarding such item (whether through pre-read of any JSC meeting with regard to the Collaboration, the Technology and Process Transfer Plan or otherwise) to enable Sanofi to determine the identity and need for such Know-How, and (2) Sanofi has accepted, by written notice to Translate Bio (which during the Collaboration Term may be through minutes of JSC meetings), that it wishes to include such item within the licenses granted to Sanofi by Translate Bio pursuant to Section 9.1.

1.52 "**Licensed Materials**" means the Materials that are Controlled by Translate Bio or its Affiliates as of the Execution Date that are necessary or reasonably useful in the development, manufacture, sale or use of any Product in a Licensed Field and listed on Schedule 1.52 (Licensed Materials), which will be updated from time to time by Translate Bio, as appropriate, the use of which by Sanofi (and/or any of its Affiliates and/or Service Providers) to make, sell or use Products absent the licenses granted herein, would constitute unauthorized use of such Materials.

1.53 "**Licensed Technology**" means collectively the Licensed Know-How, Licensed Materials and Licensed Patents.

1.54 "**Licensed Patents**" means those Patents Controlled by Translate Bio or any of its Affiliates as of the Execution Date that, but for the licenses granted herein, the research, development, manufacture, use, offer for sale, sale, or importation or other exploitation of a Product in a Licensed Field would infringe a Valid Patent Claim of such Patent in the country in which such activity occurs (or, in the case of a Valid Patent Claim that has not yet issued, would infringe such Valid Patent Claim if it were to issue). Licensed Patents, as of the Execution Date, are those listed in Schedule 1.54 (Licensed Patents), which will be updated from time-to-time by Translate Bio, as appropriate, to reflect the issuance of patents included therein and other changes to the status of the Licensed Patents.

1.55 "**LNP**" means a lipid nanoparticle.

1.56 "**Losses**" means a Party's costs and expense, from and against any and all liabilities, losses, costs, damages, fees or expenses (including reasonable external counsel fees and associated disbursements) incurred in accordance with Article 15 (Indemnification and Insurance).

1.57 Intentionally omitted.

1.58 "**Manufacturing Costs**" means the direct and indirect costs and expenses incurred by a Party to manufacture a Product consisting solely of:

(i) direct labor costs (salaries, wages, employee benefits, overtime costs and shift premiums) (and, for clarity, such labor costs shall be actual costs, and not the FTE Rate);

(ii) direct materials (including raw materials and intermediates and interim packaging) costs;

(iii) a fair and reasonable allocation of operating costs of facilities and equipment;

(iv) quality, release and in-process control costs;

(v) charges for reasonable spoilage, scrap or rework costs;

(vi) amounts (without mark-up) that are paid to a Third Party, in connection with the manufacture of the Product or any component thereof;

(vii) the reasonable allocation of facility overhead, both fixed and variable, to such manufacturing operation (including the allocable costs of administrators and managers overseeing manufacturing and production) maintenance, engineering, safety, finance, capital equipment depreciation to the extent such capital equipment is utilized with respect to Product, supply chain management, management of agreements with Third Party contract manufacturers (excluding costs of any external counsel retained to negotiate or enforce any such agreement), and inventory write off; and

(viii) any non-refundable or non-creditable indirect taxes, customs and excise duties, or similar taxes;

provided, *however that* in each case of items (i) through (viii) above, inclusive, to the extent specifically identifiable to the manufacture of a Product. The term "Manufacturing Costs" excludes costs related to the operation of any facility incurred while using such facility to manufacture products other than Products.

1.59 "**Market Approval**" means, with respect to a Product in a country or group of countries, all approvals from the relevant Governmental Authority(ies) necessary for the sale of such Product in such country or group of countries, and, if required prior to sale of a Product in such country or group of countries, pricing and reimbursement approval. For the avoidance of doubt, ATU, Law 648/96 and similar named patient programs do not constitute Market Approval.

1.60 "**Materials**" means tangible compositions of matters, whether chemical or biological, such as, by way of example, cell lines, reagents, lipids, LNPs, delivery vehicles, antibodies, strains, proteins, nucleic acids and other materials used in the research, development and manufacture of pharmaceutical products. Materials exclude those tangible compositions of matters, whether chemical or biological, which a Party may independently obtain from a Third Party for commercial use.

1.61 "**Milestones**" has the meaning ascribed to it in Section 7.4.

1.62 "**MIT License**" means that certain Exclusive Patent License Agreement made effective November 1, 2013 (regarding MIT Case No. [**]) made by and between the Massachusetts Institute of Technology ("**M.I.T.**") and Shire AG, as amended from time to time, which license was assigned by Shire to Translate Bio.

1.63 "**mRNA**" means messenger ribonucleic acid (also known as messenger RNA), and includes [**].

1.64 "**Multi-Component Product**" has the meaning set forth in Section 7.5.5.

1.65 "**Net Sales**" means

(a) the aggregate of the gross invoiced (or, if no invoice, otherwise charged) sales prices for Product that is sold or transferred for value by Sanofi or any of its Affiliates or any Sublicensee to a Third Party minus the following amounts incurred or paid (and not reimbursed) as recognized by IFRS or GAAP, as applicable, with respect to such sales or transfers for value (regardless of the period in which such amounts are incurred or paid):

(i) trade, cash, prompt payment or quantity discounts;

(ii) returns, refunds, allowances, rebates and chargebacks;

(iii) retroactive price reductions applicable to sales of the Product;

(iv) fees paid to distributors, wholesalers, selling agents (excluding any sales representatives of a Party or any of its Affiliates), group purchasing organizations and managed care entities;

(v) credits or allowances for product replacement, whether cash or trade;

(vi) any tax, tariff, duty or governmental charge levied on the sales, transfer, transportation or delivery of the Product (including any tax such as a value added or similar tax or government charge), other than franchise or income tax of any kind whatsoever;

(vii) the actual or accrued amount of write-offs for bad debt;

(viii) payments to Governmental Authorities to support the funding of health systems (*e.g.*, fees, taxes, mandatory rebates or reimbursements to social security systems); and

(ix) a [**] percent ([**]%) allowance for the sum of insurance, shipping and freight costs directly related to the delivery of the Product and special packaging;

(b) plus, as set forth in Article 12, any Recoveries.

1.66 "**Option**" has the meaning ascribed to it in Section 9.2.1.

1.67 "**Option Exercise Fee**" has the meaning ascribed to it in Section 7.3.

1.68 "**Optioned Field**" means [**].

1.69 "**Option Notice**" has the meaning set forth in Section 9.2.1.

1.70 "**Option Term**" means, subject to Section 2.2, the later of (i) the [**] anniversary of the Closing Date, or (ii) [**] from the end of the Collaboration Term.

1.71 "**Out-Of-Pocket Costs**" shall mean those costs and expenses, including applicable taxes, paid to Third Parties, such as Service Providers, but excluding Manufacturing Costs.

1.72 "**Party**" and "**Parties**" have the meanings set forth in the Preamble.

1.73 "**Patents**" means issued patents and pending patent applications (including certificates of invention, applications for certificates of invention and priority rights) in any country or region, including all provisional applications (and any U.S., international, multinational or foreign patents or patent applications thereof), re-filings, substitutions, continuations, continuations-in-part, divisions, renewals, all letters patent granted thereon, and all reissues, re-examinations, and all international or foreign counterparts of any of the foregoing (including Patent Extensions, patents of addition and the like).

1.74 "**Patent Extensions**" has the meaning set forth in Section 12.9.

1.75 "**Pathogen**" means an infectious disease causing agent such as a virus, bacteria, fungi, protozoa or other types of organisms.

1.76 "**Person**" means any individual, corporation, partnership, limited liability company, limited partnership, trust, business trust, association, joint stock company, joint venture, pool, syndicate, group, sole proprietorship, unincorporated organization, Governmental Authority or any other form of legal entity not specifically listed herein.

1.77 "**Pharmacovigilance Agreement**" has the meaning set forth in Section 3.5 (Pharmacovigilance Agreement).

1.78 "**Phase I**", "**Phase II**", "**Phase III**", as the case may be, means any human clinical trial of a Product that would satisfy the requirements of 21 CFR § 312.21(a), (b) or (c), respectively, or equivalent Laws outside of the U.S.

1.79 "**Pre-Change of Control Entities**" means, in the event of a Change of Control of Translate Bio or its Parent, Translate Bio (in the form in which Translate Bio existed immediately prior to such Change of Control) and any of its Affiliates that were Affiliates of Translate Bio (in the form in which such entity existed prior to such Change of Control) immediately prior to such Change of Control.

1.80 "**Pre-Existing Agreements**" mean the agreements executed by Translate Bio prior to the Closing Date which are listed in Schedule 1.80 (Pre-Existing Agreements).

1.81 "**Product**" means any vaccine containing mRNA and made using or under any [**] in any form, presentation, combination with other active ingredients, dosage or formulation; *provided, however, that* no rights are granted to Sanofi to combine any compound, molecule or other active ingredient owned or controlled by Translate Bio or any of its Affiliates with any such vaccine. The term "Product" excludes any product that [**].

1.82 "**Publication**" has the meaning set forth in Section 13.11.

1.83 "**Recoveries**" means any consideration received by a Party or any of its Affiliates from a Third Party in connection with the final, non-appealable judgment (or judgment with respect to which the time period for appeal has expired), award or settlement of any enforcement.

1.84 "**Regulatory Filing**" means any filing with any Governmental Authority with respect to the clinical testing, manufacture, sale or export of any Product.

1.85 "**Royalty Term**" means on a Product-by-Product and country-by-country basis, the period beginning from Launch of such Product in such country and ending the later of: (i) expiration of the last Valid Patent Claim Covering such Product; or (ii) ten (10) years after Launch of such Product in such country.

1.86 "**[**]**" means [**].

1.87 "**Safety Concern**" has the meaning set forth in Section 16.4 (Termination for Safety Reason).

1.88 "**Sanofi**" has the meaning set forth in the Preamble.

1.89 "**Sanofi Background Technology**" means the Patents, Know-How and Materials Controlled by Sanofi or its Affiliates (i) prior to the Execution Date or (ii) after the Execution Date outside of the Collaboration, which is set forth in Schedule 1.89 (Sanofi Background Technology), which will be updated by Sanofi from time to time in accordance with Section 6.3 (Reporting by Sanofi), or as is otherwise appropriate.

1.90 "**Sanofi Collaboration Activities**" means the research, development, testing, regulatory, manufacturing and other activities allocated to Sanofi under the Collaboration Plan in accordance with Section 3.1.

1.91 "**Sanofi Collaboration Technology**" means the Collaboration Technology solely owned by Sanofi in accordance with Sections 10.2, 10.4 or 10.5.

1.92 **"Sanofi Improvement"** means any Patent filed claiming any improvement, modification, refinement, correction, evolution or enhancement of any (1) Licensed Technology or (2) Translate Bio Collaboration Technology or (3) Licensed Improvement, made by Sanofi and/or its Affiliates and/or its Service Providers, which are (a) created or conceived after the Closing Date outside of the Collaboration and before the later of:

(x) [**] after (1) the execution of the Technology and Process Transfer Memorandum or (2) Deemed Completion, or

(y) the earlier of (i) the [**] of the end of the Collaboration Term or (ii) [**] from Closing.

No Patent claiming an invention that is conceived by Sanofi without the use of Licensed Technology, Translate Bio Collaboration Technology or Licensed Improvements shall be considered a Sanofi Improvement and no license under any such Patent is granted to Translate Bio hereunder.

1.93 "**Sanofi Indemnitees**" has the meaning set forth in Section 15.1 (Indemnity by Translate Bio).

1.94 "**Sanofi Reserved Property**" has the meaning set forth in Section 10.4.

1.95 "**Service Provider**" means a Third Party contract research organization, contract service organization, contract manufacturer, contract laboratory provider, contract employee, consultant or other service provider.

1.96 "**Shire Agreement**" means that certain Asset Purchase Agreement dated December 22, 2016 made by and between Translate Bio, Inc. (formerly RaNA Therapeutics, Inc.) and Shire Human Genetic Therapies, Inc., as amended from time to time, and including all schedules and exhibits thereto and all other instruments and documents referred to therein delivered at the Closing (as defined therein).

1.97 "**Start**" means, with respect to any clinical trial of a Product, the first subject first visit.

1.98 "**Sublicensee**" means any Person directly or indirectly (through multiple tiers) granted rights by a Party which rights are under Collaboration Technology or derived from a license granted to such Party herein, or any Affiliate of such Person involved in the development or commercialization of a Product with or on behalf of such Person.

1.99 "**Success Criteria**" means the technical criteria, mutually agreed to by the Parties and described in the Technology and Process Transfer Plan.

1.100 "**Technology and Process Transfer**" means the activities to be undertaken by the Parties in accordance with the Technology and Process Transfer Plan.

1.101 "**Technology and Process Transfer Memorandum**" has the meaning set forth in Section 4.7.4 (Technology and Process Transfer Memorandum).

1.102 "**Technology and Process Transfer Milestone**" has the meaning set forth in Section 7.4.3.

1.103 "**Technology and Process Transfer Plan**" has the meaning set forth in Section 4.7.1 (Technology and Process Transfer Plan).

1.104 "**Term**" has the meaning set forth in Section 16.1 (Term).

1.105 "**Territory**" means all of the countries in the world.

1.106 "**Third Party**" means any Person that is not a Party or an Affiliate of a Party.

1.107 "**Third Party Claim**" means any claim, action, lawsuit, or other proceeding brought by any Third Party.

1.108 "**Third Party Obligation**" means the royalty payments which Translate Bio or any of its Affiliates owes to any Third Party with respect to a Product in a Licensed Field, in any calendar quarter, arising from an obligation under any Pre-Existing Agreement and/or Future Agreement.

1.109 "**Translate Bio**" has the meaning set forth in the Preamble.

1.110 "**Translate Bio Collaboration Activities**" means those research, development, testing, regulatory, manufacturing and other activities for which Translate Bio or any of its Affiliates is responsible for during the Collaboration pursuant to this Agreement and any Ancillary Agreement.

1.111 "**Translate Bio Collaboration Technology**" means the Collaboration Technology solely owned by Translate Bio in accordance with Sections 10.2 or 10.3.

1.112 "**Translate Bio Field**" means [**].

1.113 "**US**" or "**U.S.**" means the United States and its territories and possessions.

1.114 "**Valid Patent Claim**" means on a country-by-country basis, a claim of (i) an issued and unexpired (a) Licensed Patent or (b) Collaboration Patent or (c) Patent which is a Licensed Improvement or (d) Derived Patent (in each case as may be extended through a Patent Extension), wherein such claim has not been finally disclaimed, revoked, held invalid or unenforceable by a court or other Governmental Authority of competent jurisdiction and which claim has not been irretrievably abandoned, disclaimed, denied or admitted to be invalid or unenforceable through prosecution, reissue, re-examination or disclaimer or otherwise, or (ii) a pending application of any of (a), (b), (c) or (d) that has not been abandoned or finally rejected without the possibility of appeal or refiling; *provided, however*, that a Valid Patent Claim will exclude any such claim in a pending application that has not been granted within [**] following the earliest priority filing date for such application.

2. COLLABORATION SCOPE AND GOVERNANCE

2.1 **Purpose of the Collaboration**. The purpose of the collaboration undertaken by the Parties under this Agreement is for the Parties to collaborate to perform certain activities with respect to the discovery, research, pre-clinical testing, development, clinical testing and manufacture of investigational Products in the Licensed Fields as described in more detail in this Agreement (the "Collaboration"). The Parties intend to capitalize on the strengths of each Party to accelerate Product development and recognize that Translate Bio has strengths in mRNA design, production and formulation and Sanofi has strengths in the immunology of infectious diseases.

2.2 **Collaboration Term**. The Collaboration will begin on the Closing Date and the Collaboration will be completed within three (3) years unless otherwise mutually agreed by the Parties in writing (the "Collaboration Term"). The Collaboration will begin on the Closing Date and will be completed within three (3) years (the "Collaboration Term"), unless the Parties, by written amendment to this Agreement, mutually agree to extend the term. Sanofi shall have the right, on written notice to Translate Bio to terminate the Collaboration, if at any time Translate Bio is unable to perform its obligations under the Collaboration Plan due to lack of appropriate personnel or facilities or a Change of Control; provided, however, that such termination shall be effective as of the date specified by Sanofi in such notice which date is at least [**] after such notice is received by Translate Bio. In the event that Sanofi provides such a notice to Translate Bio, each of the Collaboration Term and Option Term shall end as of the effective date of such notice and Sanofi shall continue to pay for the FTE Costs, in accordance with the Collaboration Budget, and any non-cancellable Out-of-Pocket Costs, for a period of [**] after such notice is received by Translate Bio.

2.3 **Governance**. The Parties desire to establish committees (as described in this Article 2 (Scope and Governance)) to oversee the Collaboration, to provide a decision-making structure and to provide a forum for discussion of matters relating to the Collaboration. Any such committees shall automatically be disbanded at the end of the Collaboration Term. Regardless of the name given to it, any working group established hereunder shall be considered a "committee" for purposes of this Section 2.3.

2.3.1 **Formation**. Promptly, but not later than [**] following the Closing Date, the Parties will establish a Joint Steering Committee, and not later than [**] after the Closing Date, the Parties will establish a Joint Project Team. Upon mutual agreement of the Parties, the JSC and JPT will each have the right to establish subcommittees or working teams with respect to any issue within its area of responsibility as it sees fit to facilitate the performance of its responsibilities, with each such subcommittee or working team having an equal number of representatives of each Party. The JSC may also convene, on an *ad hoc* basis, committees from time to time to address specific matters. The Parties shall exchange the contact information for the members of the JSC and JPT as soon as practicable following the Closing Date

2.3.2 **Membership**. Each committee will be comprised of an equal number of members from each Party. The initial composition of the JSC and JPT shall be [**] members each. The Parties may agree in writing to increase or decrease the number of members of each committee during the Collaboration Term as deemed appropriate for the activities to be carried out by such committee. Each Party may replace any of its designated committee representatives at any time on written notice to the other Party. Each committee shall have [**] co-chairpersons. Translate Bio and Sanofi shall each select from their representatives a co-chairperson for each of the committees and each Party may change its designated co-chairperson from time to time upon written notice to the other Party. The co-chairpersons of each committee shall be responsible for calling meetings, preparing and circulating an agenda in advance of each meeting of such committee; *provided* that the committee co-chairpersons shall call a meeting of the applicable committee promptly upon the written request of either co-chairperson to convene such a meeting. Each Party's representatives at the JSC and JPT shall be persons who are suitably qualified and experienced to manage the Collaboration, in the case of the JSC, and execute the Collaboration Plan, in the case of the JPT.

2.3.3 **Meetings**. Each committee shall meet at such times as it elects to do so; *provided* that the JSC will meet once every [**], via teleconference or videoconference or otherwise (with at least [**] being in person), unless the frequency or mode of meeting is otherwise agreed by the JSC members. Additionally, either Party may request a meeting of the JSC to resolve any *ad hoc* matters requiring resolution; *provided* that the requesting Party provides at least [**] prior written notice to the co-chair of such committee appointed by the other Party and such notice includes a proposed agenda for such meeting. Each subcommittee and working team established hereunder will agree to a meeting frequency and meeting protocol necessary to coordinate and conduct the activities for which it is responsible, as agreed by the Parties. Any in-person meeting will be held on an alternating basis between a location in the U.S. designated by Translate Bio and Sanofi, unless otherwise agreed by the Parties. Each Party will be responsible for its own expenses relating to such meetings. As appropriate, other employee representatives of the Parties may attend such meetings as non-members and as appropriate to the subject matter of the meeting. No Third Party may attend any meeting of the JSC or any other committee under this Agreement unless (1) such Third Party executes an appropriate confidentiality agreement that is no less protective of the Parties' Confidential Information than the terms of Article 13, prior to attending such meeting, and (2) both Parties agree in advance to the attendance of such Third Party. All committee and team meetings will be conducted in English, and all Collaboration documents will be in English. Each Party shall be responsible for the cost of translating any documents to be provided to the other Party in connection with the Collaboration. For a committee or team meeting to have a quorum to make any decision, at least one (1) member from each Party must attend such committee or team meeting. Each Party shall use reasonable efforts to ensure that at least one (1) member of such Party attends each committee or team meeting.

2.4 **Decision-Making**.

2.4.1 **Voting.** Subject to Sections 2.4.4 and 2.4.5, each Party's representatives on the JSC, JPT or any subcommittee or working team shall collectively have one vote, and decisions shall be made unanimously.

2.4.2 **Disputes.** If the co-chairs of any subcommittee or working team cannot reach agreement on any specific matter requiring both Parties' consent, then the matter shall be referred to the JSC for resolution within [**] of the dispute arising.

2.4.3 If the co-chairs of the JSC cannot reach agreement on any such matter set forth in Section 2.4.2 or any matter before the JSC, then the matter will be referred to the [**] of Translate Bio and the [**] of Sanofi for resolution within [**] of the matter having been referred to them. If such individuals cannot agree to resolution of such matter and such matter does not solely relate to a Product, either Party may raise such matter as a dispute in accordance with Section 17.4.

2.4.4 Subject to Section 2.4.5, Sanofi shall have final decision-making authority, and the tie-breaking vote at the JSC, following the escalation in accordance with Sections 2.4.2 and 2.4.3 during the Collaboration Term, with respect to [**]*; provided however that* Sanofi shall not have the right to determine the [**] under this Agreement, including regarding [**], both of which shall be decided on mutual consent of the Parties, such consent not to be unreasonably withheld by either Party.

2.4.5 Neither Party shall have decision-making authority regarding any of the following matters: [**].

2.4.6 Sanofi shall make any decision under this Section 2.4 consistent with the terms of this Agreement. Sanofi may not unilaterally make any determination that Sanofi has fulfilled any obligation under this Agreement or any Ancillary Agreement or that Translate Bio has breached any obligation hereunder. Sanofi may not unilaterally make any decision that could be interpreted that events required for payment of a Milestone have not occurred.

2.5 **Joint Steering Committee**. Each Party will ensure that such Party's JSC co-chairperson will have authority to represent such Party as a whole. The JSC shall be responsible for overall management and coordination of the Collaboration activities to be undertaken by the Parties. Specific responsibilities of the JSC are described in Schedule 2.5.

2.6 **Joint Project Team**. Subject to the terms of this Agreement, the JPT will be responsible for research and development matters with respect to the Products and for setting up any required working groups and subcommittees to manage development and manufacturing matters during research and development of Products. The JPT shall report to the JSC regarding supply matters affecting development of Products. Specific responsibilities of the JPT are described in Schedule 2.6

2.7 **Reporting**. Each Party will keep the applicable committee or team informed of progress and results of activities for which it is responsible or that it is permitted to conduct hereunder through its members on such committee or team at each regularly scheduled meeting thereof and as otherwise provided herein.

2.8 **Limitations on Authority to Amend or Modify**. The JSC, may on mutual written consent of the co-chairs, modify the time periods set forth in Section 2.3.3 (Meetings) and Section 2.4 (Decision-Making) without requiring a formal amendment to this Agreement or otherwise satisfying the requirements of Section 17.15 (Waivers and Modifications).

2.9 **Alliance Managers**. Promptly after the Closing Date, each Party will appoint an employee of such Party to serve as a liaison between the Parties with respect to the Collaboration, to promote effective communication between the Parties and to coordinate the Parties' activities and responsibilities under the Collaboration Plan (each such employee, the "**Alliance Manager**" of such Party). Each Alliance Manager will manage and oversee the governance of this Agreement and will serve as the primary contact person for the Party appointing such Alliance Manager concerning on-going interactions between the Parties under this Agreement. The Alliance Managers will also be responsible for and manage the commencement of the Collaboration. The Alliance Managers will coordinate and attend all meetings of the JSC and will be responsible for the preparation and circulation of JSC meeting minutes for approval and will facilitate the scheduling and conduct of JSC meetings. The Alliance Manager may also attend meetings of the JPT or any other committee (but is not a member of either the JSC or JPT). Each Party may in its sole discretion replace its Alliance Manager at any time by notice by email to the other Party in accordance with Schedule 17.11 (Notices).

3. RESEARCH, DEVELOPMENT AND REGULATORY

3.1 **Development during the Collaboration Term**.

3.1.1 **Allocation of Collaboration Activities**. The Parties recognize that additional research and development (both non-clinical and clinical) will be required to develop Products in the Licensed Fields. The Parties have allocated activities between them for such research and development activities in accordance with the Collaboration Plans.

3.1.2 **Collaboration Plans**.

3.1.2.1 The Parties will prepare an update to the Collaboration Plan prior to [**] of each calendar year during the Collaboration Term. The Collaboration Plan shall include the Collaboration Budget for activities to be undertaken by Translate Bio for the then-current calendar year of the Collaboration as to each of (1) FTE Costs, (2) Out-Of-Pocket Costs and (3) any Manufacturing Costs and an estimate with respect to each such Cost Category to be incurred in respect of Translate Bio's activities for each remaining calendar year of the Collaboration Term thereafter. If the Parties do not agree to an update to a Collaboration Plan or a Collaboration Budget as part of the updating process, the then-current Collaboration Plan or Collaboration Budget, as applicable, shall continue to apply. The co-chairs of the JSC may agree in principle to modify the Collaboration Plan and/or Collaboration Budget and reflect such agreement in principle in the minutes of a JSC meeting; *provided*, *however,* that no such modification shall be binding on the Parties until a written amendment to this Agreement is executed recording such modification.

3.1.2.2 Draft Collaboration Plans shall be presented to the JSC not later than [**] for approval by the JSC no later than [**] of each calendar year. In the event of any dispute regarding any modification to the Collaboration Plan and/or Collaboration Budget, the Parties shall continue to adhere to and perform their respective obligation under the then-current Collaboration Plan and/or Collaboration Budget, as applicable, until the dispute is resolved.

3.1.2.3 Translate Bio shall be responsible for procuring the number of FTEs set forth in the Collaboration Plans as mutually agreed by the Parties.

3.2 **Collaboration Costs**. The estimated costs for Translate Bio's Collaboration Activities will be as set forth in the applicable Collaboration Budget; *provided*, *however*, that Sanofi shall be responsible for paying FTE Costs, Out-of-Pocket Costs and Manufacturing Costs up to [**] percent ([**]%) of such costs set forth in the applicable Collaboration Budget with respect to the Translate Bio Collaboration Activities. Any variation in excess of [**] percent ([**]%) of the Collaboration Budget will require Sanofi's express prior written consent.

3.3 **Development after the Collaboration Term**. Following expiration or early termination of the Collaboration Term, Sanofi shall be solely responsible for all research, development, testing, regulatory and manufacturing activities for the Products, except those specifically contracted to Translate Bio under the Supply Agreement or another agreement between the Parties.

3.4 **Regulatory Matters**. Sanofi shall be responsible for the preparation of all documents required for Market Approval of Products. Sanofi will prepare, submit and maintain all Regulatory Filings for Products. Translate Bio shall use Commercially Reasonable Efforts to cooperate with, and provide reasonable assistance to Sanofi, including provision of relevant data, documentation and technical support licensed to Sanofi hereunder, at Sanofi's expense and reasonable advance request, to facilitate obtaining Market Approval of Products. Translate Bio's obligations under this Section 3.4 shall cease on the [**] anniversary of the Closing Date except with regard to any regulatory information which is solely in the possession of Translate Bio (i.e. which information is not otherwise transferred to Sanofi in accordance with this Agreement), and which information is required by Sanofi to obtain Market Approval of Products in the Licensed Fields, in which case Translate Bio shall provide reasonable assistance to Sanofi at Sanofi's expense.

3.4.1 **Manufacturing Matters**. Prior to completion of the Technology and Process Transfer, Translate Bio will prepare CMC Module 3 of the Common Technical Document in English for Products, at Sanofi's expense, and Sanofi will modify as appropriate such module for use in its Regulatory Filings. "**Common Technical Document**" means the set of specifications for the application of a dossier for the registration of medicines formatted according to the International Conference on Harmonization (ICH) of technical requirements for registration of pharmaceuticals for human use

3.4.2 **Regulatory Filings and Market Approvals**. Sanofi will own all right, title and interest in and to any and all Regulatory Filings and Market Approvals for Products in the Licensed Fields. Translate Bio will execute all documents and take all actions as are reasonably requested by Sanofi to vest such title in Sanofi. Where

applicable, Translate Bio will grant a "right of reference or use" (as defined in 21 C.F.R. §314.3(b)) or other applicable right with respect to its Regulatory Filings for Products as necessary for Sanofi to prepare, submit and maintain Regulatory Filings for Products. Where required, the Parties shall execute any power of attorney or other instrument necessary to give effect to this Section 3.4.2 (Regulatory Filings and Market Approvals).

3.5 **Pharmacovigilance Agreement**. The Parties may enter into one or more pharmacovigilance agreements (each, a "**Pharmacovigilance Agreement**") setting forth the responsibilities and procedures for collecting, monitoring, evaluating, sharing and reporting to applicable Governmental Authorities information regarding patient safety (including adverse drug experiences) that are or may be associated with Products and the use of the Licensed Technology by Translate Bio outside of the Licensed Fields and/or use of Collaboration Technology, Licensed Improvements and/or Sanofi Improvements in the Licensed Fields and/or Translate Bio Fields.

3.6 **Product Complaints, Recalls and Returns**. The Parties' rights and obligations with respect to non-conformance, recalls and returns of the investigational Products will be governed by, as and to the extent applicable, the supply and quality agreements described in Section 4.4 (Supply and Quality Agreements).

3.7 **Sub-Contracting during the Collaboration Term.**

3.7.1 **Sub-contracting Sanofi Collaboration Activities**.

3.7.1.1 During the Collaboration Term, Sanofi may, at Sanofi's expense, sub-contract certain of its Sanofi Collaboration Activities to qualified Service Providers and grant appropriate licenses with respect thereto. Any such sub-contracting activities shall be undertaken following execution of a written agreement between Sanofi and such Service Provider which is consistent with the terms of this Agreement. Sanofi remains liable to Translate Bio for the performance of the Sanofi Collaboration Activities, despite any such sub-contracting. Sanofi shall promptly notify Translate Bio of the identity of any Third Party contract manufacturing organization prior to Sanofi or any of its Affiliates engaging such Third Party to manufacture any Product under this Agreement.

3.7.2 **Sub-contracting Translate Bio Collaboration Activities**. During the Collaboration Term, Translate Bio may sub-contract certain of its Translate Bio Collaboration Activities to qualified Service Providers and grant appropriate licenses with respect thereto; *provided*, that any contract manufacturing organization shall be subject to Sanofi's prior written consent, not to be unreasonably withheld. Any such sub-contracting activities shall be undertaken following execution of a written agreement between Translate Bio and such Service Provider which is consistent with the terms of this Agreement. Translate Bio remains liable to Sanofi for the performance of the Translate Bio Collaboration Activities, despite any such sub-contracting.

3.7.3 **Sub-contracting to Academic or Governmental Entity**. During the Collaboration Term, Translate Bio shall not utilize any academic or Governmental Authority to perform any Translate Bio Collaboration Activities without the prior written consent of Sanofi.

3.8 **Sub-Contracting after the Collaboration Term**. Upon expiration or early termination of the Collaboration Term, (a) except as otherwise agreed by the Parties in writing, Translate Bio shall have no obligations with respect to the Collaboration or the development of any Product, and (b) Sanofi may sub-contract activities to qualified Service Providers, as well as academic and/or governmental entities. Any such sub-contracting activities shall be undertaken following execution of a written agreement between Sanofi and such sub-contractor, the terms of which shall be consistent with the terms of this Agreement. Sanofi shall remain liable for the performance of all its activities despite any such sub-contracting.

3.9 **Transfer of Materials**.

3.9.1 Following Closing, Translate Bio shall use Commercially Reasonable Efforts to transfer to Sanofi the Licensed Materials listed on Schedule 1.52 (Licensed Materials). Sanofi shall make available suitable personnel to receive such Licensed Materials. Sanofi shall only use Licensed Materials to exercise the licenses granted hereunder. Sanofi may make additional quantities of such Licensed Materials as it may require to exercise the licenses granted hereunder.

3.9.2 During the Collaboration Term, within [**] of a written request from Translate Bio from time to time, Sanofi shall use Commercially Reasonable Efforts to transfer to Translate Bio all Materials forming part of the Sanofi Background Technology which Translate Bio requires to perform the Translate Bio Collaboration Activities during the Collaboration Term. Translate Bio shall make available suitable personnel to receive such Materials. Translate Bio shall only use such Materials to exercise the licenses granted hereunder.

3.9.3 During the Collaboration Term, each Party shall promptly deliver to the other Party any Collaboration Materials in such Party's possession required by the other Party to perform its activities under the Collaboration Plan.

3.9.4 A representative of each of the Parties shall keep complete and accurate records of all Materials transferred between them using the Material transfer form attached hereto as Schedule 3.9 (Transfer of Materials).

4. MANUFACTURING & TECHNOLOGY AND PROCESS TRANSFER

4.1 **Manufacturing Responsibility prior to Technology and Process Transfer**.

4.1.1 Unless otherwise agreed by the Parties in writing, Translate Bio shall be responsible for manufacturing and supplying non-clinical Products, related Materials (other than Licensed Materials provided under Section 3.9 or made by Sanofi as described in Section 3.9 or Section 6.4.2) and investigational Products, in each case, as required by and pursuant to the Collaboration Plan, and once executed, Supply

Agreement, until the earlier of (1) for each of the three (3) initial Licensed Fields (which may include the Licensed Field for the Pathogen swapped by Sanofi for [**]), the end of the first Phase 2 clinical trial for the first Product to Start a Phase 2 clinical trial on a Licensed Field-by-Licensed Field basis, or (2) [**] following execution of the Technology and Process Transfer Memorandum or Deemed Completion, as applicable, has occurred for each initial Licensed Field on a Licensed Field by Licensed Field basis. The Parties will monitor Sanofi's demand of investigational Products so that Translate Bio will be able to meet Sanofi's requirements without interference with Translate Bio's other programs, including advanced planning, reservation of suites and employee allocations.

4.1.2 As part of its manufacturing obligations pursuant to this Section 4.1, Translate Bio will also be responsible for generating all CMC data for Products in the Licensed Fields and for providing to Sanofi the applicable manufacturing related modules of all Regulatory Filings, including all required supporting cGMP and analytical data documents, for integration into the Regulatory Filings by Sanofi, in each case, as required by and pursuant to the Collaboration Plan and the Supply Agreement and at Sanofi's expense.

4.2 **Sub-contracting to Contract Manufacturing Organizations**.

4.2.1 Translate Bio may retain Third Party contractors reasonably acceptable to Sanofi to perform manufacturing operations; *provided*, *however*, that if Translate Bio intends to appoint any such Third Party, (1) Sanofi shall have the right, but not the obligation, to be present in any pre-appointment facility visit of such Third Party manufacturer, and (2) the services of such Third Party manufacturer shall be subject to a written supply and quality agreement that documents the responsibilities and quality expectations between Translate Bio and such Third Party manufacturer, which quality agreement shall permit Sanofi to participate in any audits of such Third Party to the extent that such audit relates to the Products. Any such pre-appointment or audit visit will be subject to the Parties establishing appropriate confidentiality protections regarding any products other than the Products which may be made at the same facility.

4.2.2 The Parties acknowledge that as of the Closing Date, Translate Bio has sub-contracted the manufacture of Product or other materials required for the Collaboration to the qualified Third Parties listed in Schedule 4.2.2 (Qualified Third Party Manufacturing Sites). Translate Bio shall not change the site of manufacture of Product or other materials required for the Collaboration without the prior consent of Sanofi, which consent shall not be unreasonably withheld or delayed.

4.3 **Manufacturing Costs/Annual Updates**.

4.3.1 Prior to execution of a Supply Agreement, Translate Bio shall include as part of the Collaboration Budget, the estimated Manufacturing Costs associated with supplying Product for clinical trials for the specific year of the Collaboration and a projection as to Manufacturing Costs associated with supplying Product for clinical trials in years two and three hence, in each case, based on Sanofi's estimate of the amount of each Product for clinical trials for the then-current year and for clinical trials in years two and three hence.

4.3.2 After the execution of a Supply Agreement and prior to Technology and Process Transfer, as per the Supply Agreement, Translate Bio shall continue to provide an annual estimate of the cost of supply of Product required to meet Sanofi's estimate of the amount of each Product for clinical trials for the then-current year and for clinical trials in years two and three hence.

4.3.3 Sanofi shall be responsible for Manufacturing Costs and other amounts in accordance with Schedule 4.3.

4.4 **Supply and Quality Agreements**.

4.4.1 **Supply & Quality Matters**. Within [**] after the Closing Date, or such other time mutually agreed by the Parties, the Parties shall negotiate in good faith and execute a supply agreement (the "**Supply Agreement**") and a related quality agreement (the "**Quality Agreement**") governing the terms of the supply of Products by Translate Bio as required by the Collaboration. Certain financial and other terms which shall be reflected in such Supply and Quality Agreements are summarized on Schedule 4.4 (Terms of Supply & Quality).

4.4.2 **Prevalence**. In the event of any inconsistency between this Agreement and any Supply Agreement and/or Quality Agreement executed between the Parties (or any of their respective Affiliates) the terms of this Agreement shall prevail and govern in all respects except those expressly related to supply and quality of Products.

4.5 **Shortage; Allocation of Manufacturing Capacity.** Translate Bio shall use Commercially Reasonable Efforts to ensure that it, in its own facilities, or through its Third Party Service Providers, maintains adequate manufacturing capacity to meet the demand for Products in accordance with the estimates provided by Sanofi with respect to the Collaboration Plans and the Supply Agreement. Translate Bio shall immediately notify Sanofi if it becomes aware that it, or its Third Party Service Providers, will not have an adequate manufacturing capacity to meet the demand for Products in accordance with the Collaboration Plans and the Supply Agreement. The Parties shall discuss the situation and may agree that either of them would engage additional Third Party Service Providers or accelerate Technology and Process Transfer in order to secure adequate supply to meet the demand in a timely manner.

4.6 **Audits**. Until such time as the Parties execute the Supply Agreement and Quality Agreement, Sanofi shall have the right to audit Translate Bio's (and to be present in the audits of its Third Party manufacturer's) manufacturing facilities (including warehouses and distribution centers) for compliance with cGMP and the terms of this Agreement. Any such audit shall be arranged on mutually convenient dates. In the event of any inconsistency between this Section 4.6 (Audits) and the audit provisions contained in any Supply Agreement and/or Quality Agreement, those in the Supply Agreement and/or Quality Agreement shall prevail and/or govern.

4.7 **Technology and Process Transfer**.

4.7.1 **Technology and Process Transfer Plan**. Translate Bio and Sanofi will establish a plan for the transfer of Licensed Technology required for the development and manufacturing of Products in the three initial Licensed Fields (which may include the Licensed Field for the Pathogen swapped by Sanofi for [**]) consistent with Schedule 4.7.1 (the "**Technology and Process Transfer Plan**") within [**] of the Closing. Translate Bio shall use Commercially Reasonable Efforts to deliver to Sanofi the tangible items of the Licensed Technology listed within Technology and Process Transfer Plan within the timeframes prescribed therein. When such Technology and Process Transfer Plan is agreed by both Parties, it shall be incorporated herein by reference.

4.7.2 **Timing**. The Parties will commence performance of activities described in the Technology and Process Transfer Plan within [**] of the Closing Date and these activities shall be completed within [**] of the Closing Date, *provided, however, that* by the date of commencement of Technology and Process Transfer, Translate Bio has established a process at (a) [**] for use in Products in the initial Licensed Fields, and (b) a process at [**] in the initial Licensed Fields. If, by the commencement date of the performance of activities described in the Technology and Process Transfer Plan, Translate Bio has not established a process at (a) [**] for use in Products in the initial Licensed Fields, and (b) a process at [**] in the initial Licensed Fields, or that Translate Bio is otherwise not able to complete Technology and Process Transfer within [**] of the Closing Date, then the Parties shall extended the period of time for the completion of Technology and Process Transfer on a day for day basis; *provided however that* the extension of the period to complete Technology and Process Transfer shall only apply with regard to those items that remain uncompleted as of such commencement date (for example, on a Licensed Field by Licensed Field basis).

4.7.3 **Technology and Process Transfer Lead**. The Parties shall each appoint a technology and process transfer lead to oversee and manage the technical transfer process in accordance with Technology and Process Transfer Plan.

4.7.4 **Success Criteria/Technology and Process Transfer Memorandum**. Within [**] following successful completion of the Technology and Process Transfer Plan in accordance with the Success Criteria listed in the Technology and Process Transfer Plan, the Parties shall execute a Technology and Process Transfer memorandum, a form of which Technology and Process Transfer memorandum is attached hereto as Schedule 4.7.4 (the "**Technology and Process Transfer Memorandum**").

4.7.5 **Qualified Personnel**. Each Party will make their respective suitably qualified and experienced employees available (whether, as reasonably necessary, by telephone, e-mail or in person) to execute the Technology and Process Transfer in accordance with Technology and Process Transfer Plan. Translate Bio's personnel that are transferring Licensed Technology under the Technology and Process Transfer Plan shall have actual knowledge of the Licensed Technology and Licensed Improvements, if any, they are transferring. The Technology and Process Transfer may include on-site training at Translate Bio's facilities and also at Sanofi's facilities as per the Technology and Process Transfer Plan.

4.7.6 **Third Parties**. In the event that Sanofi or Translate Bio need to retain any Third Party to assist with any aspect of executing the Technology and Process Transfer Plan, Sanofi or Translate Bio (as the case may be) shall execute an agreement with each such Third Party to protect the other Party's Confidential Information on terms consistent with this Agreement.

4.7.7 **Costs**. [**] shall bear [**] costs and expenses associated with the execution of the Technology and Process Transfer Plan. A budget for the cost of executing the Technology and Process Transfer Plan shall be established by the Parties, and mutually agreed by the Parties as part of such plan.

4.7.8 **Deemed Completion**. In the event that the Parties do not perform or complete the Technology and Process Transfer Plan, and therefore do not execute the Technology and Process Transfer Memorandum, the Technology and Process Transfer shall be deemed to be completed, and Translate Bio shall be paid the Technology Transfer Milestone, if [**] ("**Deemed Completion**").

4.8 **Manufacturing After Technology and Process Transfer**.

4.8.1 Unless otherwise agreed by the Parties in writing (for example in a Supply Agreement), following completion of the Technology and Process Transfer Plan in accordance with Section 4.7, Sanofi shall be solely responsible for manufacturing Products in the Licensed Fields.

4.8.2 **Technical assistance**. Upon (i) execution of the Technology and Process Transfer Memorandum referred to in Section 4.7.4 above or (ii) Deemed Completion referred to in Section 4.7.8 above, and for a period of [**] thereafter, Translate Bio shall use Commercially Reasonable Efforts to provide reasonable assistance to Sanofi in connection with manufacturing of Products, at Sanofi's expense, and upon Sanofi's reasonable request.

4.9 **Escrow**.

4.9.1 **Escrow Process**. At any time during the Escrow Period, Sanofi may request that Translate Bio place the Escrow Materials in escrow, subject to the remainder of this Section 4.9. In such event, Sanofi and Translate Bio shall each use Commercially Reasonable Efforts to promptly agree on an Escrow Agent and negotiate an Escrow Agreement. Upon the execution of the Escrow Agreement, Translate Bio shall deposit the Escrow Materials with the Escrow Agent, in accordance with a schedule to be agreed to in the Escrow Agreement. Upon Sanofi's request no more frequently [**], Translate Bio shall update the deposit of the Escrow Materials with the Escrow Agent. Upon Sanofi's request, the Escrow Agreement shall permit the Escrow Agent to test and validate the Escrow Materials, with the assistance of Translate Bio. In the event that such a test and validation discovers a material failure of the Escrow Materials to enable Technology and Process Transfer, Translate Bio shall use Commercially Reasonable Efforts to correct such failure. No portion of the Escrow Materials may be released to Sanofi except upon an Escrow Release Event. Any obligations of Translate Bio or the Escrow Agent shall be at Sanofi's expense, at the FTE Rate in respect of Translate Bio's obligations. Upon the expiration of the Escrow Period, if no Escrow Release Event has occurred, the Escrow Agent shall be obligated to return the Escrow Materials to Translate Bio.

4.9.2 "**Escrow Agent**" means a Third Party that is mutually acceptable to the Parties, with experience in escrowing and manufacturing biological materials.

4.9.3 "**Escrow Agreement**" means an agreement among the Escrow Agent, Sanofi and Translate Bio, which is consistent with this Section 4.9, which provides that all or any portion of the Escrow Materials can only be released to Sanofi in the event of an Escrow Release Event and requires the Escrow Agent to agree to confidentiality obligations in respect of Escrow Materials that are at least as stringent as those set forth herein, including non-disclosure of any Escrow Materials to Sanofi and/or any Sanofi Affiliates.

4.9.4 "**Escrow Materials**" includes that information and materials required to facilitate a transfer of Licensed Technology required for the development and manufacturing of Products in the three initial Licensed Fields (which may include the Licensed Field for the Pathogen swapped by Sanofi for [**]), and which may include items such as process diagrams, batch records, material specifications, protocols, analytical methods, and validation reports in respect of the manufacturing process of Translate Bio as of the Closing Date, and material updates thereto made by Translate Bio during the Escrow Period.

4.9.5 "**Escrow Period**" means the period commencing [**] after the Closing Date and continuing until the earliest of (i) execution of the Technology and Process Transfer Memorandum, (ii) Deemed Completion or (iii) termination of this Agreement.

4.9.6 "**Escrow Release Event**" means that a Change of Control of Translate Bio has occurred, a material disruption in Technology and Process Transfer following such Change of Control has occurred, Sanofi has notified Translate Bio of such material disruption and Translate Bio has not cured such material disruption in the [**] following receipt of such notice.

5. COMMERCIALIZATION

5.1 **Commercial Activities**. Sanofi shall be solely responsible for all commercialization activities for Products, including any and all pre-Launch activities, at Sanofi's expense throughout the Territory.

5.2 **Customer Complaints, Product Recalls & Product Withdrawals**. Sanofi shall be solely responsible for responding to all customer complaints, Product recalls and Product withdrawals throughout the Territory; *provided*, *however*, that if Translate Bio, itself or through any Affiliate or Third Party, develops or commercializes any product also using the Licensed Technology, Collaboration Technology, Licensed Improvements and/or Sanofi Improvements, (a) Translate Bio shall cooperate with Sanofi and use Commercially Reasonable Efforts to obtain any information required by any Governmental Authority associated with the Licensed Technology and the use of the Products and (b) Sanofi shall provide to Translate Bio any information required by any Governmental Authority associated with the Licensed Technology, Collaboration Technology, Licensed Improvements and/or Sanofi Improvements and such other products.

6. PERFORMANCE, STANDARDS & REPORTING

6.1 **Commercially Reasonable Efforts**.

6.1.1 Sanofi shall use Commercially Reasonable Efforts to research, develop, seek Market Approval for and commercialize at least [**].

6.1.2 Translate Bio shall use Commercially Reasonable Efforts to perform (i) the Translate Bio Collaboration Activities during the Collaboration Term, (ii) the activities in the Technology and Process Transfer Plan, and (iii) Translate Bio's manufacturing obligations described in Article 4 and any Supply Agreement.

6.2 **Key Steps**. Subject to Sections 2.4 and 6.1.1 and the other terms and conditions of this Agreement, Sanofi shall, in its sole discretion, make all decisions with regard to researching, developing, seeking and maintaining Market Approval, manufacturing and commercializing Products in the Territory.

6.3 **Reporting by Sanofi**.

6.3.1 After the expiration or early termination of the Collaboration Term, Sanofi shall deliver an annual report to Translate Bio by [**] of each year summarizing Sanofi's development and commercialization activities under this Agreement. Each such annual report is Sanofi's Confidential Information, except that Translate Bio may share any, subject to taking appropriate measures to protect the confidentiality of Sanofi's information, such report with any Third Party to whom Translate Bio owes a reporting duty under any Pre-Existing Agreement or Future Agreement in accordance with Section 13.7.

6.3.2 Sanofi shall notify Translate Bio in writing in accordance with Section 17.11 (Notices) within [**] of the achievement of any Milestone listed in Section 7.4.

6.3.3 Sanofi may, on written notice to Translate Bio, update Schedule 1.89 (Sanofi Background Technology) as may be necessary with respect to the Research Grant provided for in Section 9.7.

6.3.4 Within [**] of the close of each calendar quarter (*i.e.*, each period of three months ending on 31 March, 30 June, 30 September or 31 December) during any Royalty Term, Sanofi shall furnish to Translate Bio a written report, on a country-by-country basis and Product-by-Product basis and Licensed Field-by-Licensed Field basis, stating Net Sales of the Products sold by Sanofi or any Affiliate or Sublicensee in the Territory during the corresponding calendar quarter and the amount of royalties payable (including any reduction in royalties in accordance with Article 7). The royalties payable to Translate Bio shall be delivered concurrently with the royalty report.

6.3.5 Sanofi shall provide any report required by any Pre-Existing Agreement or Future Agreement, at the frequency and with the information required by such Pre-Existing Agreement or Future Agreement, at least [**] before Translate Bio is required to provide such report to the applicable counterparty to such agreement. Such reports include the reports referred to in Section 1.11(g) of the Shire Agreement and Section 5 of the MIT License. In the event that any such report would include the same information as set forth in another report and at a similar timing set forth in this Section 6.3, the Parties may agree that the report set forth in the other provisions of this Section 6.3, but not in this Section 6.3.5, may be suspended in favor of the report set forth in this Section 6.3.5. Upon Translate Bio's request, Sanofi shall provide any information in connection with such reports requested by Translate Bio, such as clarifications or additional information requested by the applicable counterparty to such agreement.

6.4 **Reporting by Translate Bio**.

6.4.1 Translate Bio shall notify Sanofi in writing in accordance with Section 17.11 (Notices) within [**] of the expiration or termination of any Pre-Existing Agreements or any Future Agreements executed by Translate Bio, and of any material change or amendment to such Pre-Existing Agreements or any Future Agreements executed by Translate Bio which would have a material impact on Sanofi's rights and obligations herein, including those pursuant to Articles 7 and 9.

6.4.2 Translate Bio shall deliver an annual report to Sanofi by [**] of each year summarizing the Patents claiming Licensed Improvements and also Licensed Improvements which are material improvements comprising Know-How and Materials for the previous year each year until the [**] of the Closing. Following receipt of such report, Sanofi shall notify Translate Bio in writing within [**] if Sanofi wishes to include under Section 9.1.3 exclusive rights to any such Licensed Improvements, which rights are hereby included as of the date on which Translate Bio receives Sanofi's notice. If Sanofi does not elect to include such rights, Licensed Improvements will cease to be Licensed Improvements under this Agreement. Where such Licensed Improvements are Materials, Sanofi shall reply within such [**] indicating whether it wishes to receive from Translate Bio a quantity of such Materials in those instances where Sanofi cannot create the Materials itself (or through a Service Provider) by using information available publicly or from Translate Bio. In such case, the Parties shall follow the procedure described in Section 3.9 (Transfer of Materials) and Sanofi shall bear the costs associated with the provision of such Materials.

6.5 **Standards.** During the Collaboration Term, each Party will perform its activities in accordance with high scientific and professional standards, and in compliance in all material respects with the requirements of applicable Laws, and any applicable current good laboratory practices. Each Party will exercise reasonable diligence to avoid infringement of any Third Party's intellectual property rights with respect to its activities under this Agreement, except as would be permitted by applicable Law. Each Party shall ensure compliance by such Party's Affiliates and Service Providers with this Section 6.5 (Standards).

6.6 **Calendar Quarters**. Any reporting or budgeting of financial information between the Parties under this Agreement shall be stated in calendar quarters.

7. COLLABORATION FUNDING, LICENSE AND OPTION ISSUE FEES, OPTION EXERCISE FEES, MILESTONES, ROYALTIES

7.1 **Collaboration Funding**. In consideration of the performance by Translate Bio of the Translate Bio Collaboration Activities in the Collaboration, Sanofi shall pay Translate Bio the agreed sum set out in the Collaboration Budget for each of (a) FTE Costs, (b) Out-Of-Pocket Costs, and (c) Manufacturing Costs. Each of FTE Costs, Out-Of-Pocket Costs or Manufacturing Costs is a "**Cost Category**") which shall be accounted for separately by Translate Bio and in no event shall Translate Bio include costs or expenses from one such Cost Category in another such Cost Category. In the event that the Collaboration Budget or Supply Agreement includes certain Out-of-Pocket Costs or Manufacturing Costs which Translate Bio is [**], Sanofi shall [**] the full amount of those Out-of-Pocket Costs and Manufacturing Costs to Translate Bio.

7.2 **License and Option Issue Fees**. As partial consideration of the license and option rights granted herein, Sanofi shall pay Translate Bio the agreed upfront fee of [**] dollars ($[**]) in respect of the licenses granted to the Licensed Technology and an additional [**] dollars ($[**]) in respect of the Option rights granted herein, in both cases within [**] after receiving all of the following (i) Translate Bio's invoice, (ii) Translate Bio's wire transfer information required to process the payment and (iii) Translate Bio's residency forms. Translate Bio's invoice shall not be dated earlier than the Closing Date.

7.3 **Option Exercise Fees**. In the event that Sanofi exercises its Option for an Optioned Field, Sanofi shall, concurrently with the exercise of such Option, pay Translate Bio the agreed sum of five million dollars ($5,000,000.00) (the "**Option Exercise Fee**") per Optioned Field exercised by such Option.

7.4 **Milestones**. As partial consideration of the license rights granted herein, Sanofi agrees to pay Translate Bio the following amounts upon achievement of the milestones set forth below by Sanofi, its Affiliates or Sublicensees (or, to the extent anticipated in the applicable Collaboration Plan, by or on behalf of Translate Bio) (each a "**Milestone**") in accordance with Section 8.1, except as expressly provided for in Section 7.4.5:

7.4.1 The following development milestones shall be paid by Sanofi once per Licensed Field the first time such Milestone is achieved by a Product in such Licensed Field:

Milestone:	development Milestone payment:
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

7.4.2 In the event that, with respect to any Product in a Licensed Field, a Milestone in clause (b) or (c) is first achieved before the Milestone in clause (a) is first achieved, a Milestone in clause (c) is first achieved before the Milestone in clause (b) is first achieved, or a Milestone in clause (d) or (e) is first achieved before a Milestone in clause (a), (b) or (c) is first achieved, then such Milestone in such earlier clause shall be paid and such Milestone shall be deemed to have been achieved when such Milestone in such later clause is achieved.

7.4.3 **Technology and Process Transfer Milestone.** Sanofi will pay Translate Bio a one-time payment of ten million dollars ($10,000,000.00) following the earlier of (a) execution of the Technology and Process Transfer Memorandum in accordance with Section 4.7.4 or (b) Deemed Completion as provided for in Section 4.7.8 (the "**Technology and Process Transfer Milestone**").

7.4.4 **Sales Milestones**. Sanofi will pay Translate Bio the following sales milestones on aggregate, annual, royalty-bearing Net Sales with respect to all Products in a Licensed Field, once per Licensed Field (the "**Sales Milestones**"):

When aggregate royalty-bearing annual Net Sales for all Products in a Licensed Field first reach the following thresholds:	Sales Milestone payment:
(i) $[**] to less than $[**]	[**]
(ii) $[**] to less than $[**]	[**]
(iii) $[**] or more	[**]

No more than [**] Sales Milestones per the table above may be earned in any calendar year, and where [**] are earned, Sanofi will pay [**] such Sales Milestone when achieved and may defer payment of [**] Sales Milestone for [**]. For example, if aggregate royalty-bearing annual Net Sales for all Products in a Licensed Field first reach $[**] or more, Sanofi shall pay Translate Bio the Sales Milestone in item [**] above plus [**] Sales Milestone, which [**] Sales Milestone shall be elected by Translate Bio by written notice to Sanofi following receipt of payment of the [**] Sales Milestone. The [**] Sales Milestone [**].

7.4.5 **Special Payment Terms for Milestones under Shire Agreement**. Sanofi shall make commercially reasonable efforts to pay the Milestones listed in Section 7.4.1 or 7.4.3 payable to Translate Bio hereunder within [**], provided that Translate Bio notifies Sanofi in writing within [**] of the Closing Date of which such Milestones would trigger a milestone payment by Translate Bio to Shire under the Shire Agreement,

and *further provided that* failure by Sanofi to pay any such Milestone within such [**] shall not constitute material breach of this Agreement, and no interest shall be payable under Section 8.6 on invoices issued by Translate Bio in respect of such payments, in each case unless such Milestone remains unpaid for more than [**] following receipt of such invoice.

7.5 **Royalties and Royalty Reductions**.

7.5.1 **Royalties**. As partial consideration of the license rights granted herein, Sanofi agrees to pay Translate Bio royalties on quarterly Net Sales with respect to all Products in a Licensed Field, as follows, which royalties shall be paid during the applicable Royalty Term with respect to each such Product:

The portion of aggregate annual Net Sales ($) for all Products in a Licensed Field	royalty (%)
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

7.5.2 **Third Party Royalty Reductions**. Subject to Section 7.6, when Translate Bio's royalty obligations to any Third Party under the Pre-Existing Agreements have expired, been terminated, or are reduced, the royalty Sanofi would pay Translate Bio pursuant to Section 7.5.1 would be reduced by [**] per cent ([**]%) of the amount that Translate Bio's royalty to such Third Party is reduced. For example, if Translate Bio's royalties payable under the Shire Agreement are reduced to [**]%, then Sanofi's royalty under Section 7.5.1 would be reduced by [**]% in each applicable royalty tier.

7.5.3 **No Valid Claim**. If the sale of a royalty-bearing Product is not encumbered by any Third Party Obligation and the manufacture, use, offer for sale, sale, or importation or other exploitation of such Product also is not Covered by a Valid Patent Claim of (a) a Licensed Patent, or (b) a Collaboration Patent or (c) a Patent which is a Licensed Improvement, or (d) a Derived Patent, but such Product is or was developed, made, offered for sale, sold, imported or otherwise exploited using (x) Licensed Know-How or Licensed Materials, (y) Know-How or Materials which is Translate Bio Collaboration Technology or (z) Know-How or Materials which is a Licensed Improvement, then the royalty rates in Section 7.5.1 shall be reduced by [**] per cent ([**]%).

7.5.4 **Combination Products**. For the purposes of calculating royalties pursuant to this Section 7.5, the value of the Product is to be computed as follows: [**].

7.5.5 **Multi-Component Product**. In the event that Sanofi, or any Affiliate or Sublicensee sells a multi-component vaccine product which includes more than one Product ("**Multi-Component Product**"), the royalty on royalty-bearing Net Sales would be paid only once. The royalty-bearing Net Sales of the Multi-Component Product shall be proportioned between Licensed Fields as follows: [**]. The proportioned Net Sales for each Product within a Licensed Field contained in such Multi-Component Product would be added to the aggregate annual Net Sales for the applicable Licensed Field.

7.6 **Royalty Stacking**.

7.6.1 If Translate Bio or Sanofi acquires (through purchase or license) rights to any royalty-bearing technologies from any Third Party (e.g. in addition to the technologies that are the subject matter of the Pre-Existing Agreements or otherwise form part of the Licensed Technology as of the Execution Date), which technologies are needed by Sanofi in order to develop, manufacture or commercialize a Product requiring another or different component of mRNA technology than that licensed by Translate Bio herein (e.g., a specific vector, cationic lipid, LNP or other formulations thereof not forming part of the Licensed Technology or a Licensed Improvement, including rights to technology needed for freedom to operate the Licensed Technology or a Licensed Improvement), then if [**], then:

(a) the royalty payable by Sanofi to Translate Bio on such Product pursuant to Section 7.5.1 shall not apply, and Sanofi shall pay Translate Bio a royalty of [**] percent ([**]%) on Net Sales plus the amount of the Third Party Obligations; and

(b) if the royalties owed by Sanofi to any Third Parties and Translate Bio, collectively, on such Product exceed [**] percent ([**]%) then Sanofi shall not be obligated to pay Translate Bio [**].

Examples of the calculation of royalty stacking in accordance with this Section 7.6.1 are set out in Schedule 7.6.1 (Royalty Stacking).

7.6.2 If [**], Sanofi may offset [**] percent ([**]%) of the royalty Sanofi owes to such Third Parties which amount exceeds such [**] percent ([**]%) threshold against the royalty payable to Translate Bio pursuant to Section 7.5.1. but by no more than [**] per cent ([**]%) and *provided that* in no event shall Sanofi pay Translate Bio a royalty on such Product of less than [**] per cent ([**]%) on Net Sales plus the amount of the Third Party Obligations.

7.6.3 In no event shall the amount of the royalties payable by Sanofi to Translate Bio under this Section 7.6 in respect of a (a) Product, other than a [**], in a given quarter be less than [**] percent ([**]%) of Net Sales of such Product in such quarter plus the aggregate amount of Third Party Obligations for such Product for such quarter; or (b) a [**] in a given quarter be less than [**] percent ([**]%) of Net Sales of such Product in such quarter plus the aggregate amount of Third Party Obligations for such Product for such quarter.

7.6.4 **No Multiple Royalties**. One royalty only shall be payable under Section 7.5.1 by Sanofi to Translate Bio for any unit of Product, even if such Product is Covered by more than one Patent within the Licensed Technology, Translate Bio Collaboration Technology, Licensed Improvements or Derived Patent.

7.7 **Fully Paid-Up License**. The license granted to Sanofi under Section 9.1 shall become fully-paid-up in respect of each Product in each country after the end of the applicable Royalty Term.

7.8 **Audits**.

7.8.1 Upon the written request of Translate Bio, Sanofi shall, and shall cause its Affiliates and Sublicensees to, permit an independent public accountant selected by Translate Bio and reasonably satisfactory to Sanofi (the "**Accountant**") to have reasonable access upon reasonable prior notice and during normal business hours, but no more than [**], to review the books and records of Sanofi and/or the relevant Affiliate and/or Sublicensee solely for the purpose of determining the accuracy of the reports provided by Sanofi and the payments due or made hereunder (an "**Audit**"). If the Accountant concludes that any payment (or portion thereof) was not paid when due, Sanofi shall pay the underpaid amount within [**] after receipt of an invoice therefor. The Audit shall be at Translate Bio's expense unless the Accountant determines that any royalty payment was underpaid by [**] percent ([**]%) or more of the amount that should have been paid for the audited period, in which case Sanofi shall reimburse Translate Bio for the reasonable Out-Of-Pocket Costs of the Audit. Translate Bio may conduct an Audit covering no more than [**].

7.8.2 Upon the written request of Sanofi, Translate Bio shall, and shall cause its Affiliates to, permit an Accountant to have reasonable access upon reasonable prior notice and during normal business hours, but no more than [**], to review the books and records of Translate Bio and its Affiliates solely for the purpose of determining the accuracy of Translate Bio's invoicing of any monies paid or to be paid by Sanofi to Translate Bio in accordance with Section 7.1. If the Accountant concludes that Translate Bio has overstated or understated its FTE Costs, Out of Pocket Costs or Manufacturing Costs in any calendar quarter then Translate Bio shall adjust its invoice in the next calendar quarter by the amount specified by the Accountant and if there are no further monies payable by Sanofi to Translate Bio under Section 7.1 then Sanofi may set off any overpaid amount against payments to Translate Bio under Article 7. Sanofi's audit rights under this Section 7.8.2 shall expire on the [**] anniversary of the end of the Collaboration Term.

7.9 **Change in Accounting Period**. Either Party may, on notice to the other Party, change its accounting and financial reporting practices from calendar quarters and calendar years to fiscal quarters and fiscal years or otherwise adjust such practices in accordance with IFRS or any other generally accepted accounting practice, consistently applied ("**GAAP**"). Following receipt of any such notice, the Parties shall confer to confirm a reporting method to facilitate payments to be made hereunder.

8. PAYMENT TERMS, INVOICING AND TAX.

8.1 **Payment terms**. Except as provided for in Section 7.1 (Collaboration Funding), Section 7.2 (License and Option Issue Fees), Section 6.3.4 and Section 7.4.5 (Special Payment Terms for Milestones under Shire Agreement) all amounts payable by Sanofi hereunder shall be paid within [**] of the receipt of the invoice at the following mailing address:

Sanofi Pasteur Inc.
Accounts Payable
PO Box 30149
College Station, Texas 77842 USA

Invoices shall reference the following:

- payee's complete name, address and phone number
- payment amount and currency
- payment term / due date
- invoice number and invoice date
- Sanofi contact name and agreement reference
- reference to specific provisions of the agreement under which payment is due
- method of payment (*e.g.*, wire, check, or electronic fund transfer)
- (if applicable) wiring instructions, including bank name, address, account number
- purchase order number, if any (under the following format: n° 44000xxxxx).

Sanofi reserves the right to reject any invoice that does not mention any and all of these references. Translate Bio shall ensure that each invoice reports details regarding the charges described therein for each Cost Category sufficient to enable an Accountant to conduct an audit of such information in accordance with Section 7.8.

8.2 **Currency**. All references to monetary amounts in this Agreement are references to United States dollars.

8.3 **Withholding Taxes**. Sanofi shall make payments to Translate Bio after deduction of any applicable withholding taxes. Prior to any first payment in each calendar year, Translate Bio shall provide Sanofi with any relevant form required by applicable tax authorities in order for Sanofi to (i) attest to Translate Bio's fiscal residence and (ii) obtain the application of the reduced withholding tax rate or the exemption of the withholding tax, according to the relevant bilateral agreement against double taxation. At the request of Translate Bio, Sanofi shall forward to Translate Bio such relevant application forms for fulfillment. In the event Translate Bio fails to return such forms duly filled in and signed before a payment date, Sanofi shall declare and pay withholding tax at the local common law rate applicable to the payments, and Sanofi shall deduct such tax from the corresponding payment to Translate Bio. Sanofi shall remit the withholding tax to the proper tax authority and proof of payment of such tax shall be secured and sent to Translate Bio upon request, as evidence of such payment within [**] from such payment.

8.4 **Account Information**. Translate Bio will promptly provide Sanofi any bank account information required by Sanofi to make any payments under this Agreement.

8.5 **Exchange Rate**. If a Product is sold for monies other than United States dollars, or Sanofi obtains amounts hereunder that are to be paid to Translate Bio (including Recoveries) in currency other than United States dollars, the earned royalties will first be determined in the applicable foreign currency and then converted into equivalent United States funds. Such amounts will be converted using a rate of exchange which corresponds to the rate used for conversion between the relative currencies recorded by Sanofi for the relevant receipt or expenditure, for the respective reporting period, in its books and records that are maintained in accordance with IFRS, as applicable, and used for its external reporting.

8.6 **Late Payment Interest Rate**. If the payment of royalties or any other payments due under this Agreement is not made in a timely manner in accordance with this Agreement, such payments shall bear interest, compounded annually until payment, at a per annum rate of the lesser of (a) [**] for the date that the payment was due (or if unavailable on such date, the rate on the next first available date) as published by the Wall Street Journal Eastern Edition, or (b) if lower than (a) the maximum rate permitted by applicable Law. Sanofi shall not be liable to pay any interest on payments that are delayed solely due to the actions of Translate Bio.

8.7 **Pre-Existing Agreements**. Prior to the Closing Date, Translate Bio disclosed to Sanofi the Pre-Existing Agreements listed on Schedule 1.80 (Pre-Existing Agreements). As between them, the Parties have agreed that all fees, milestones, royalties and other costs payable under such Pre-Existing Agreements shall be paid by Translate Bio and that Sanofi shall have no liability to any Third Party with respect to the payments due under such agreements, but shall, where applicable, comply with reporting and other obligations under such Pre-Existing Agreements.

8.8 **Payments owed by Translate Bio to Sanofi**. Where Sanofi is owed payment by Translate Bio on account of any grant of rights from Sanofi to Translate Bio pursuant to Article 9, Translate Bio shall make such payments in accordance with the terms of Schedule 8.8 (Payments owed by Translate Bio to Sanofi).

8.9 **Finance Contacts**. Within [**] of the Closing, each Party shall appoint a representative of their respective organizations to coordinate financial matters under this Agreement including exchanging information between the Parties required in order to calculate the payment of royalties herein.

9. GRANTS AND RETAINED RIGHTS

9.1 **Exclusive Licenses Granted to Sanofi**. Subject to the terms and conditions of this Agreement (including Sections 9.3 (Translate Bio Retained Rights), 9.4 (Governmental Rights) and 9.8 (Sub-licenses)), Translate Bio hereby grants to Sanofi, and Sanofi hereby accepts, the following licenses:

9.1.1 an exclusive right and license under the Licensed Technology to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, have exported and export Products in each Licensed Field in the Territory;

9.1.2 an exclusive right and license under Translate Bio's Collaboration Technology (both solely owned and its joint interest in any jointly owned with Sanofi) to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, have exported and export Products in each Licensed Field in the Territory; and

9.1.3 an exclusive right and license under Licensed Improvements to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, have exported and export Products in each Licensed Field in the Territory.

The rights granted to Sanofi under this Section 9.1 are sublicensable in accordance with Section 9.8. Any license under the rights granted to Translate Bio in accordance with the MIT License shall be limited to the scope and purposes set forth in the MIT License.

9.2 **Option Rights Granted to Sanofi**.

9.2.1 Subject to the terms and conditions of this Agreement, Translate Bio hereby grants to Sanofi, and Sanofi hereby accepts, an exclusive option to include within the licenses granted under Section 9.1 (the "**Option**") up to two (2) Optioned Fields. Sanofi may exercise its Option at any time during the Option Term by delivering written notice to Translate Bio in accordance with Section 17.11 (Notices) (an "**Option Notice**"). Once Sanofi has elected an Optioned Field, then, subject to Section 9.2.3, such Optioned Field shall become a Licensed Field and the rights granted to Sanofi pursuant to Section 9.1 (Exclusive Licenses Granted to Sanofi) shall apply to such Optioned Field.

9.2.2 In the event that, during the Option Term, Translate Bio receives a *bona fide* written offer from a Third Party for any Optioned Field, and Sanofi has not exercised its Option as to both of the two (2) Optioned Fields, Translate Bio shall promptly notify Sanofi thereof in writing in accordance with Section 17.11 (Notices). Sanofi shall have [**] from the date of receipt of such notice to elect to exercise its Option as to such Optioned Field. If Sanofi does not so elect to exercise its Option, such Optioned Field shall thereafter no longer be an Optioned Field and Translate Bio may pursue such field with such Third Party.

9.2.3 If Translate Bio has a research and development program with respect to products in any Optioned Field and has expended at least [**] dollars ($[**]) in research and development expenses in respect of such Optioned Field, then, during the period beginning [**] after Closing, and ending at the expiration of the Collaboration Term, Translate Bio may promptly notify Sanofi thereof in writing in accordance with Section 17.11 (Notices). Sanofi shall have [**] from the date of receipt of such notice to elect to exercise its Option as to such Optioned Field. If Sanofi does not so elect to exercise its Option, such Optioned Field shall thereafter no longer be an Optioned Field and Translate Bio may pursue such field. If Sanofi does elect to exercise its Option as a result of Translate Bio's notice under this Section 9.2.3, Sanofi will only be obligated to pay the Option Fee with respect to such elected Option Field [**]. Translate Bio may not make an election under this Section 9.2.3 with respect to more than two (2) Pathogens.

9.2.4 If Sanofi reasonably determines in good faith prior to the delivery of the Option Notice for an Optioned Field that the transactions to be consummated upon the exercise of the Option with respect to such Optioned Field require filings with the DOJ and FTC pursuant to the HSR Act, Sanofi shall, together with such Option Notice, notify Translate Bio thereof and the Parties shall, within [**] after Translate Bio's receipt of such Option Notice, file their respective premerger notification and report forms with respect to such Option with the DOJ and the FTC pursuant to the HSR Act. Such Option shall be deemed exercised (and such Optioned Field shall be included in the Licensed Field) on the date such filings will have been made and the applicable waiting period and any extensions thereof will have expired or been terminated without action to prevent the Parties from implementing the Option; *provided*, *however*, that if the Option is not so deemed exercised by the [**] after Translate Bio's receipt of the Option Notice, then the Option Notice shall be deemed withdrawn and the relevant Optioned Field shall continue to be an Optioned Field and Sanofi retains its rights under Section 9.2.2 with respect thereto.

9.3 **Translate Bio Retained Rights**. Translate Bio retains all right and title in and to all of the Licensed Technology, Translate Bio Collaboration Technology and Licensed Improvements not expressly granted to Sanofi hereunder.

9.4 **Governmental Rights**. If a Product contains or is made utilizing Licensed Technology developed with resources provided by the United States Federal Government (such as the subject matter of the MIT License), then the Parties shall comply with all applicable Laws relevant thereto (including the *Bayh-Dole Act*). Sanofi may request, where necessary, that Translate Bio request that the relevant owner of the Licensed Technology or Licensed Improvement, as the case may be, seek a waiver from the United States Federal Government to the requirement to manufacture a Product, in whole or in part, in the United States, and if necessary, Translate Bio and Sanofi shall cooperate, and provide reasonable assistance to the relevant owner, to seek such a waiver, at Sanofi's expense.

9.5 **Grants to Translate Bio under Sanofi Improvements**. Sanofi hereby grants to Translate Bio, and Translate Bio hereby accepts, a non-exclusive sublicensable (through multiple tiers) right and license, under any Sanofi Improvement, to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, export, have exported, or otherwise exploit any product, or component thereof in the Translate Bio Field in the Territory. Such license however excludes any right or license to any [**], in each case (a) and (b) that may be included or comprised in any Sanofi Improvement. In consideration of the license granted by Sanofi to Translate Bio under this Section 9.5, Translate Bio agrees to pay Sanofi, subject to Section 9.6.2, (a) a royalty of [**] percent ([**]%) on Translate Bio's (or its Affiliates or Sublicensees) Net Sales, *mutatis mutandis*, in respect of any product in the Translate Bio Field in the Territory that is covered by a Valid Patent Claim, *mutatis mutandis*, of a Sanofi Improvement which is filed within [**] following the completion of Technology and Process Transfer, and (b) a royalty of [**] percent ([**]%) on Translate Bio's (or its Affiliates or Sublicensees) Net Sales, *mutatis mutandis*, in respect of any product in the Translate Bio Field in the Territory that is covered by a Valid Patent Claim, *mutatis mutandis*, of a Sanofi Improvement which is filed more than [**] following the completion of Technology and Process Transfer.

9.6 **Grants to Translate Bio under Sanofi Collaboration Technology**.

9.6.1 Sanofi hereby grants to Translate Bio, and Translate Bio hereby accepts, a non-exclusive, sublicensable, right and license, under any Patent claiming Sanofi Collaboration Technology, to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, export, have exported, or otherwise exploit any product or component thereof in the Translate Bio Field in the Territory*; provided however that* the grant in this Section 9.6.1 excludes [**]. In consideration of the license granted by Sanofi to Translate Bio under this Section 9.6.1 Translate Bio agrees to pay Sanofi a royalty of [**] percent ([**]%) on Translate Bio's Sublicensees' Net Sales, *mutatis mutandis*, in respect of any product in the Translate Bio Field in the Territory that is covered by a Valid Patent Claim, *mutatis mutandis*, of a Patent claiming Sanofi Collaboration Technology.

9.6.2 The royalties under Section 9.5 and Section 9.6.1 shall not be aggregated, and, in the event that the applicable Net Sales, *mutatis mutandis*, of a product in the Translate Bio Field in the Territory would be subject to a royalty under both Section 9.5 and Section 9.6.1, [**] shall apply.

9.7 **Research Grant**. Sanofi hereby grants to Translate Bio, and Translate Bio accepts, a non-exclusive worldwide right and license under Sanofi Background Technology, and Translate Bio retains rights under the licenses granted to Sanofi pursuant to Section 9.1, solely for the purpose of performing Translate Bio Collaboration Activities in the Collaboration (the "**Research Grant**"). The research license granted herein and the rights retained by Translate Bio under this Section 9.7 shall expire at the end of the Collaboration Term. Translate Bio may sublicense its rights under this Section 9.7 in accordance with Section 9.8.5.

9.8 **Sub-Licenses**.

9.8.1 **Sublicense under MIT License**. Sanofi may sublicense those specific rights granted to it under Section 9.1 (Exclusive Licenses Granted to Sanofi) to any Third Party, which rights are sublicensed to Sanofi by Translate Bio under the MIT License; *provided that* Sanofi comply with the following terms:

(a) Sanofi shall execute a sublicense agreement with any such sublicensee. The terms of any sublicense shall be consistent (as applicable) with this Agreement and the MIT License, and shall require such sublicensee to meet all applicable obligations and requirements of this Agreement and the MIT License, including those obligations set forth on Schedule 9.13 of this Agreement, *mutatis mutandis*. Any failure of such sublicensee to meet all applicable obligations and requirements of this Agreement and the MIT License shall be a breach of this Agreement by Sanofi.

(b) Within [**] of the execution of any such sublicense agreement or any amendment thereto, Sanofi shall deliver an executed copy thereof to Translate Bio, which may only be redacted in respect of such information that (i) is confidential to Sanofi and such Third Party and (ii) does not relate to the Patents sublicensed under the MIT License.

(c) No agreement with any Affiliate or Sublicensee may limit (i) the ability of Sanofi (individually or through the activities of its Affiliates or other Sublicensees) to fully perform all of its obligations under this Agreement or (ii) Translate Bio's rights under this Agreement.

9.8.2 **Sublicenses under all other agreements**. Other than with respect to rights granted to Sanofi which are sublicensed under the MIT License for which the provisions of Section 9.8.1 shall apply, Sanofi may sublicense the rights granted to it under Section 9.1 (Exclusive Licenses Granted to Sanofi) to any Third Party; *provided that* Sanofi comply with the following terms:

(a) Sanofi shall execute a sublicense agreement with any such sublicensee, the terms of which shall be consistent (as applicable) with this Agreement and any applicable Future Agreement.

(b) Within [**] of the execution of any sublicense agreement, Sanofi shall deliver an executed copy thereof to Translate Bio, which may only be redacted in respect of such information that (i) is confidential to Sanofi and such Third Party and (ii) does not relate to any sublicensed (a) Licensed Technology, (b) Translate Bio Collaboration Technology or (c) Licensed Improvements.

9.8.3 **Combined Sublicenses**. In the event that Sanofi wishes to sublicense rights granted to it under both the MIT License and any other agreement, then Sanofi shall comply with the provisions of Section 9.8.1 with respect to such sublicense of rights under the MIT License and the applicable obligations with respect to such sublicense of rights under such other agreement.

9.8.4 **No relief - Sanofi.** Sublicensing of any of its rights pursuant to this Section 9.8 shall not relieve Sanofi of its obligations under this Agreement.

9.8.5 **Translate Bio's Sublicenses.** Translate Bio may sublicense the rights granted to it under (a) Section 9.5 (Grants to Translate Bio under Sanofi Improvements), (b) Section 9.6 (Grants to Translate Bio under Sanofi Controlled Collaboration Technology) and (c) Section 9.7 (Research Grant), but with regard to the Research Grant, solely (i) with Sanofi's prior written consent with, such consent not to be unreasonably withheld or delayed and (ii) to those Third Parties that perform certain of the Translate Bio Collaboration Activities, provided in each case of (a)-(c) that Translate Bio complies with the following terms:

9.8.5.1 Translate Bio shall execute a sublicense agreement with any such sublicensee, the terms of which shall be consistent (as applicable) with this Agreement.

9.8.5.2 Within [**] of the execution of any such sublicense agreement or any amendment thereto, Translate Bio shall deliver an executed copy thereof, which may only be redacted in respect of such information that (i) is confidential to Translate Bio and such Third Party and (ii) does not relate to any sublicensed Sanofi Background Technology.

9.8.6 **No relief – Translate Bio.** Sublicensing of any its rights pursuant to this Section 9.8 shall not relieve Translate Bio of its obligations under this Agreement.

9.9 **Affiliates**. The rights granted to Sanofi under Section 9.1 (Exclusive Licenses Granted to Sanofi), 9.2 (Option Rights Granted to Sanofi) and 9.8 (Sub-Licenses) may all be practiced by its Affiliates, and the provisions of Section 17.1 (Affiliates) shall apply with respect thereto.

9.10 **Trademarks Domain Names**. Sanofi shall own all trademarks (whether registered or not), with respect to the Products in the Licensed Fields and all related domain names, other than any trademark that contains the words "Translate" or "Translate Bio".

9.11 **No implied rights**. There are no rights or licenses granted by a Party to the other Party except as expressly provided herein.

9.12 **Pre-Existing Agreements.** The exclusive license rights granted to Sanofi pursuant to Section 9.1 (Exclusive Licenses Granted to Sanofi) includes certain rights sublicensed from Third Parties under the Pre-Existing Agreements and shall be subject to the terms and conditions of such Pre-Existing Agreements, where applicable.

9.13 **Specific obligations re MIT License.** With respect to the MIT License, Sanofi agrees to comply with the provisions of Schedule 9.13 (Specific obligations re MIT License), unless Sanofi has terminated the rights it sub-licensed under the MIT License in accordance with Section 16.5 (Termination of Rights under MIT License).

9.14 **Waiver or Amendment of MIT License.** In the event that a provision of the MIT License may impose a material hardship on Sanofi and/or could create a material impediment to the commercialization of Products hereunder, Translate Bio shall, at Sanofi's expense, use Commercially Reasonable Efforts to obtain a waiver from M.I.T. or execute an amendment to the MIT License to relieve Sanofi of such hardship as soon as practicable upon Sanofi's reasonable request.

9.15 **Manufacturing waiver**. In the event that Sanofi wishes to manufacture Product which would, absent a waiver granted by the U.S. government, per applicable Laws, have to be manufactured in whole or in part in the U.S., Translate Bio shall, at Sanofi's request and expense, cooperate with Sanofi to seek a waiver of such obligation, including coordinating with the relevant Patent(s) owner(s) if such Patent(s) is/are licensed to Sanofi under this Agreement.

9.16 **Sanofi Retained Rights**. Sanofi retains all right and title in and to all of the Sanofi Background Technology, Sanofi Collaboration Technology (including the Sanofi Reserved Property) and Sanofi Improvements not expressly granted to Translate Bio hereunder.

10. COLLABORATION TECHNOLOGY

10.1 **Inventorship**. Inventorship of Collaboration Technology shall be determined in accordance with U.S. patent Laws and such principles shall be applied to determine whether a Party solely, or the Parties jointly, invented any Patents, Know-How or Materials arising from the performance of the Collaboration. In the event that the Parties have a dispute regarding inventorship or ownership of Collaboration Technology, such dispute shall be referred to an independent external counsel having appropriate experience mutually selected by the Parties for resolution. The costs of such adjudication regarding inventorship or ownership shall be borne equally by the Parties.

10.2 **Ownership**. Subject to Sections 10.3, 10.4 and 10.5, (a) Sanofi shall own all Collaboration Technology discovered, invented or created solely by Sanofi, its Affiliates or its Service Providers, (b) Translate Bio shall own all Collaboration Technology discovered, invented or created solely by Translate Bio, its Affiliates or its Service Providers, and (c) Sanofi and Translate Bio shall jointly own all Collaboration Technology discovered, invented or created jointly by Translate Bio and Sanofi or their respective Affiliates or Service Providers. Each Party, on behalf of itself and its Affiliates, hereby assigns to the other Party such right, title and interest in and to the applicable Collaboration Technology sufficient to vest in such other Party the appropriate ownership of the relevant Collaboration Technology in accordance with this Section 10.2, Section 10.3, Section 10.4 and Section 10.5, as applicable.

10.3 **Exceptions to Ownership of Collaboration Technology: Translate Bio**. Subject to Sections 10.4 and 10.5, Translate Bio shall own all Collaboration Technology regardless of inventorship where such Collaboration Technology is an improvement, modification, refinement, correction, evolution or enhancement to any Licensed Technology or Licensed Improvement.

10.4 **Exceptions to Ownership of Collaboration Technology: Sanofi**. Sanofi shall own all Collaboration Technology regardless of inventorship to the extent that such Collaboration Technology [**]. The technology described in items (b), (c) and (d) of this Section 10.4 is the "**Sanofi Reserved Property**".

10.5 **Exceptions to Ownership of Collaboration Technology: Sanofi Background Technology.** Sanofi shall own all Collaboration Technology regardless of inventorship to the extent that such Collaboration Technology contains or was made using Sanofi Background Technology that is used during and in performance of the Collaboration and that is disclosed as such, in writing to Translate Bio, prior to such use or is otherwise identified as such in a Collaboration Plan.

10.6 **Translate Bio access to Sanofi Reserved Property.** If Sanofi elects not to develop or commercialize any Sanofi Reserved Property described in Section 10.4(b) or (c) or (d) above, Sanofi shall include such information in its annual report under Section 6.3 (Reporting by Sanofi). Translate Bio shall have [**] from the date of receipt of such report to elect in writing to either acquire (by way of an assignment) or be granted a perpetual, irrevocable, worldwide, exclusive, royalty-free, fully-paid, sub-licensable (through multiple tiers) license in the Translate Bio Field to such Sanofi Reserved Property described in Section 10.4(b) or (c) or (d), which assignment or license shall be automatically granted. Sanofi may, in any such transaction, reserve for itself the use of any such Sanofi Reserved Property outside of the Translate Bio Field.

10.7 **No exploitation of Joint Interest**. No Party may license or transfer (except in connection with an assignment of this Agreement pursuant to Section 17.2) its interest in any jointly-owned Collaboration Technology to any Third Party without the other Party's prior written consent, which consent shall not be unreasonably conditioned, withheld or delayed. Each Party (and its Affiliates) may use its interest in any jointly-owned Collaboration Technology for any and all purposes, subject to the applicable terms and conditions of this Agreement.

11. FUTURE AGREEMENTS.

11.1 In the event that Sanofi determines, in its sole discretion, that rights must be obtained from any Third Party under a potential Future Agreement in order for Sanofi, its Affiliates and/or its Sub-Licensees to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, have exported and export Products in one or more Licensed Field in the Territory, then Sanofi may acquire such rights and the royalty stacking provisions of Section 7.6 shall apply, to the extent applicable, to the royalties due under such agreement.

11.2 If rights are required by Sanofi in respect of rights to another or different component of mRNA technology [**], then the following provisions shall apply. The Parties shall confer to determine which of them would be the contracting party, and the Parties shall agree upon which of them would be the contracting party, and regardless of whether Sanofi or Translate Bio is the party to such agreement, the contracting Party shall provide the other Party with a copy of such agreement, and, if such agreement is executed on or before the [**] anniversary of the Closing Date, the amounts payable to such Third Party other than royalties (e.g. license fees, milestones):

(a) shall be [**] by and between Sanofi and Translate Bio if the scope of such Future Agreement corresponds to the scope of this Agreement (i.e., solely Products in Licensed Fields); and

(b) shall be apportioned by the Parties such that (A) they [**] the portion of such amounts which corresponds to the scope of this Agreement (i.e., solely Products in Licensed Fields) and (B) the balance of such amounts shall be solely borne by such Party that obtains broader rights from such Third Party pursuant to such Future Agreement; and

(c) where Sanofi is the contracting entity to such an agreement, Translate Bio's share of such amounts described in clause (i) or clause (ii)(A) shall be payable by Translate Bio only as an offset against any royalty payment to be made to Translate Bio in accordance with Article 7 and only in the case that Sanofi owes any payments under the Future Agreement for the Product, *provided however that* in no event shall Sanofi's offset of such royalty amount result in a royalty payable to Translate Bio pursuant to Article 7 on a Product of less than [**] percent ([**]%) on Net Sales plus the amount of the Third Party Obligations in respect of such Product; and

(d) where Translate Bio is the contracting entity to such an agreement, Translate Bio may invoice Sanofi for its share of such additional costs, which shall be paid in accordance with Article 8; and

(e) in no event shall the maximum amount payable by Translate Bio and/or which may be offset against royalties payable to Translate Bio, in accordance with this Section 11.2 exceed [**] dollars ($[**]).

11.3 If Sanofi is the party to such a Future Agreement in respect of rights to any technology which is not encompassed in Section 11.2 above [**], including rights to such technology needed for freedom to operate a Product in a Licensed Field, then the amounts payable to such Third Party shall be borne solely by Sanofi, with any royalties payable under such Future Agreement subject to the royalty stacking provisions of Section 7.6, to the extent applicable.

12. PATENTS MATTERS

12.1 **Licensed Patents, Translate Bio's solely owned Collaboration Patents and Patents Covering Licensed Improvements**.

12.1.1 **Control**. Translate Bio will have the sole right to control, at its sole cost and expense, itself or through outside counsel, and have final decision making authority with respect to the drafting, filing, prosecution, abandonment and maintenance of (a) Licensed Patents, (b) Translate Bio's solely owned Collaboration Patents and (c) Patents claiming Licensed Improvements, including defending all such Patents against any interference, opposition, re-examination request, nullity proceeding or other revocation action.

12.1.2 **Sanofi's Rights of Review.** During the Collaboration Term with respect to Translate Bio's solely-owned Collaboration Patents and after the Collaboration Term with respect to only those Patent families within Translate Bio's solely-owned Collaboration Patents that Cover Products, Translate Bio will: (a) provide Sanofi with copies of, and an opportunity to review and comment upon, the text of any draft patent applications at least [**] before filing; provided, that if it is not reasonably practicable to provide such application in such [**] period, then Translate Bio will provide a draft copy of such application and a statement of intent to file such application as soon as is practicable; (b) provide Sanofi with a copy of each material submission made to and document received from a patent authority, court or other tribunal regarding such Patents reasonably promptly after making such filing or receiving such document, including a copy of each application for such Patent as filed together with notice of its filing date and application number; (c) keep Sanofi advised of the status of all material communications, and actual and prospective filings or submissions regarding such Patents, and will give Sanofi copies of and an opportunity to review and comment on any such material communications, filings and submissions proposed to be sent to any patent authority or judicial body; and (d) consider in good faith Sanofi's comments on such communications, filings and submissions for such Patent.

12.1.3 **Step-in Rights**. If Translate Bio elects not to file for (including nationalization or validation) a Translate Bio solely owned Collaboration Patent in a Key Patent Country or elects to abandon any Translate Bio solely owned Collaboration Patent already filed in a Key Patent Country, and from which no continuing application is filed, Translate Bio will notify Sanofi in writing not less than [**] prior to the date such election is irrevocable without additional cost, and will offer Sanofi the opportunity to assume, at Sanofi's sole expense, the right to file for, prosecute, and maintain such Collaboration Patent in such country. If Sanofi accepts the offer by written notice to Translate Bio within such period, Translate Bio will transfer prosecution and maintenance control over such Collaboration Patent to Sanofi and will reasonably assist Sanofi in assuming the filing, prosecution, and maintenance of such Collaboration Patent in such country.

12.1.4 **Cooperation of Inventors**. Where any Sanofi employee, or the employees of Sanofi's Affiliates or Service Providers are inventors of any Translate Bio solely-owed Patent, Sanofi will (and shall cause its Affiliates and Service Providers to) fully cooperate with Translate Bio (and its external counsel) with regard to the filing, prosecution and maintenance of such Patents.

12.1.5 **Third Party Rights.** The Parties' rights in this Section 12.1. are subject to any terms of any Pre-Existing Agreements or Future Agreement, where applicable.

12.2 **Jointly-owned Collaboration Patents**.

12.2.1 **Control.** Subject to Section 13.8, Sanofi will have the first right, but not the obligation, to control, at its cost and expense, through outside counsel, and have final decision making authority with respect to the drafting, filing, prosecution, abandonment and maintenance of all jointly-owned Collaboration Patents, including defending all such Patents against any interference, opposition, re-examination request, nullity proceeding or other revocation action.

12.2.2 **Translate Bio's Rights of Review.** With regard to all jointly-owned Collaboration Patents, Sanofi will: (a) provide Translate Bio with copies of, and an opportunity to review and comment upon, the text of any draft patent applications at least [**] before filing; *provided that* if it is not reasonably practicable to provide such application in such [**] period, then Sanofi will provide a draft copy of such application and a statement of intent to file such application as soon as is practicable; (b) provide Translate Bio with a copy of each material submission made to and document received from a patent authority, court or other tribunal regarding such Patents reasonably promptly after making such filing or receiving such document, including a copy of each application for such Patent as filed together with notice of its filing date and application number; (c) keep Translate Bio advised of the status of all material communications, and actual and prospective filings or submissions regarding such Patents, and will give Translate Bio copies of and an opportunity to review and comment on any such material communications, filings and submissions proposed to be sent to any patent authority or judicial body; and (d) consider in good faith Translate Bio's comments on such communications, filings and submissions for such Patent.

12.2.3 **Step-in Rights.** If Sanofi elects to no longer maintain any Patent within the jointly-owned Collaboration Patents from which no continuing application is filed, Sanofi will notify Translate Bio in writing not less than [**] prior to the date such election is irrevocable without additional cost, and will offer Translate Bio the opportunity to assume, at Translate Bio's sole expense, the right to prosecute and maintain such jointly-owned Collaboration Patent in such country. If Translate Bio accepts the offer by written notice to Sanofi within such period, Sanofi will transfer prosecution and maintenance control over such jointly-owned Collaboration Patent to Translate Bio and will reasonably assist Translate Bio in assuming the prosecution and maintenance of such jointly-owned Collaboration Patent in such country.

12.2.4 **Cooperation of Inventors**. Where any Party's employee, or the employees of such Party's Affiliates or Service Providers are inventors of any jointly-owned Collaboration Patent, such Party will (and shall cause its Affiliates and Service Providers to) reasonably cooperate with the other Party (and its external counsel) with regard to the filing, prosecution and maintenance of such Patents.

12.3 **Sanofi solely-owned Collaboration Patents and Sanofi Improvements**

12.3.1 **Prosecution and Maintenance.** Subject to Section 13.8, Sanofi will have the sole right, but not the obligation, to control, at its cost and expense, through outside counsel, and have final decision making authority with respect to the drafting, filing, prosecution, abandonment and maintenance of all Sanofi solely-owned Collaboration Patents and Sanofi Improvements, including defending all such Patents against any interference, opposition, re-examination request, nullity proceeding or other revocation action.

12.3.2 **Translate Bio's Rights of Review.** With regard to all Sanofi solely-owned Collaboration Patents, Sanofi will: (a) provide Translate Bio with copies of, and an opportunity to review and comment upon, the text of any draft patent applications at least [**] before filing; *provided that* if it is not reasonably practicable to provide such application in such [**] period, then Sanofi will provide a draft copy of such application and a statement of intent to file such application as soon as is practicable; (b) provide Translate Bio with a copy of each material submission made to and document received from a patent authority, court or other tribunal regarding such Patents reasonably promptly after making such filing or receiving such document, including a copy of each application for such Patent as filed together with notice of its filing date and application number; (c) keep Translate Bio advised of the status of all material communications, and actual and prospective filings or submissions regarding such Patents, and will give Translate Bio copies of and an opportunity to review and comment on any such material communications, filings and submissions proposed to be sent to any patent authority or judicial body; and (d) consider in good faith Translate Bio's comments on such communications, filings and submissions for such Patent.

12.3.3 **Cooperation of Inventors**. Where Translate Bio's employees, or the employees of Translate Bio's Affiliates or Service Providers are inventors of any Sanofi solely-owned Collaboration Patent, Translate Bio will (and shall cause its Affiliates and Service Providers to) reasonably cooperate with the other Party (and its external counsel) with regard to the filing, prosecution and maintenance of such Patents.

12.4 **Coordination**. The Parties' activities under this Agreement may include those directed to researching, identifying and developing new inventions which may have application to Products in the Licensed Fields and products in the Translate Bio Field, and accordingly the Parties shall coordinate their filing activities with respect to any submissions, filings or other activities as set forth in this Article 12. The Parties acknowledge the applicability of 35 U.S.C. §102(c) and 35 U.S.C. §100(h) to this Agreement.

12.5 **Defence & Settlement of Third Party Claims of Infringement**. Sanofi, through counsel of its sole choosing, will have the sole right, but not the obligation, to assume direction and control of the defense against any Third Party Claim (including direction and control of related declaratory judgements and litigation, settlement, appeal or other disposition of Third Party Claims) in the Territory to the extent that such Third Party claim alleges that the exploitation of any Product in a Licensed Field infringes or misappropriates a Third Party's rights. Any Recoveries awarded to Sanofi in connection with any Third Party Claim defended under this Section 12.5 will be applied first to reimburse Sanofi for its out-of-pocket costs of defending such Third Party Claim and then to reimburse Translate Bio for amounts as to which Translate Bio has paid under this Section 12.5 with respect to the applicable Third Party Claim, with the balance of any such Recoveries being retained by or provided to Sanofi and included in Net Sales.

12.6 **No admissions.** No Party will admit the invalidity or unenforceability (in full or in part) of any Patent Controlled by the other Party, including any Patent licensed by a Party to another Party hereunder, without the other Party's prior written consent.

12.7 **Enforcement**.

12.7.1 **Notification of Infringement.** With respect to Licensed Technology, Collaboration Technology and Licensed Improvements, in the event that a Party becomes aware of any actual, alleged or threatened action by a Third Party constituting infringement of a claim in a granted Patent, it will promptly notify the other Party and provide such other Party with all relevant details of which it is aware (each, an "**Infringement Notice**").

12.7.2 **Enforcement related to Licensed Patents, Translate Bio's solely owned Collaboration Patents and Patents Covering Licensed Improvements**.

12.7.2.1 In response to any Infringement Notice, Translate Bio will have the sole right, but not the obligation, at its sole expense (including where applicable Sanofi's reasonable expenses), through counsel of its choosing, and without assistance from Sanofi notwithstanding Section 12.7.2.6, to control enforcement (by initiating an infringement action or taking other appropriate legal action) against any actual, alleged or threatened infringement of any Licensed Patents, Translate Bio's solely owned Collaboration Patents and Patents Covering Licensed Improvements against any Third Party, to the extent such infringement

is outside the Licensed Fields, including the defense and settlement of thereof. Sanofi' s prior written consent (not to be unreasonably withheld or delayed) is required when Translate Bio wishes to enforce any of Translate Bio's solely-owned Collaboration Patents outside the Licensed Fields if such Patents Cover a Product in a Licensed Field.

12.7.2.2 In response to any Infringement Notice, Translate Bio will have the first right, but not the obligation, at its sole expense (including where applicable Sanofi's reasonable expenses), through counsel of its choosing, to control enforcement (by initiating an infringement action or taking other appropriate legal action) against any actual, alleged or threatened infringement to the extent such infringement is in the Licensed Fields of any Licensed Patents and Patents Covering Licensed Improvements against any Third Party including the defense and settlement of thereof. If Translate Bio does not initiate an infringement action or otherwise take affirmative measures to abate any such actual, alleged or threatened Third Party infringement of any Licensed Patent or Patents Covering Licensed Improvements has elected to include under Section 6.4.2, in a Licensed Field within [**] of receiving an Infringement Notice, then, with Translate Bio's prior written consent (not to be unreasonably withheld unless such Patent covers both a Product in a Licensed Field and a product that is not a Product in a Licensed Field), Sanofi will have the right, but not the obligation, at its own expense, to bring suit (or take other appropriate legal action) against any such actual, alleged or threatened infringement of such Patents by a Third Party, including the defense and settlement thereof.

12.7.2.3 In response to any Infringement Notice, Sanofi will have the first right, but not the obligation, at its sole expense and through counsel of its choosing, to control the enforcement (by initiating an infringement action or taking other appropriate legal action) against any actual, alleged or threatened infringement of any Translate Bio's solely owned Collaboration Patents in the Licensed Fields, including the defense and settlement thereof. If, however, Sanofi does not initiate an infringement action or otherwise take affirmative measures to abate any such actual, alleged or threatened Third Party infringement of any Translate Bio solely owned Collaboration Patent in a Licensed Field within [**] of receiving an Infringement Notice, then Translate Bio will have the right, but not the obligation, at its own expense, to bring suit (or take other appropriate legal action) against any such actual, alleged or threatened infringement of such Patents by a Third Party in, including the defense and settlement thereof.

12.7.2.4 With regard to any suit referred to in Section 12.7.2.1, 12.7.2.2 or 12.7.2.3, the enforcing Party may, but is not obligated, (a) to bring suit in its own name, or if required by applicable Law, jointly with the other Party, for infringement of the applicable Patents; and (b) in any such suit, to enjoin infringement and to collect for its own use, damages, profits, and awards of whatever nature recoverable for such infringement.

12.7.2.5 For so long as Sanofi's rights under Section 9.1 remain exclusive, Sanofi may control settlement of any claim or suit for infringement in the Licensed Fields of Licensed Patents, Translate Bio's solely owned Collaboration Patents and Patents Covering Licensed Improvements solely by granting the infringing party a sublicense under such Patents to the extent consistent with the license granted to Sanofi and in accordance with the provisions of Section 9.8 of this Agreement; *provided*, *however,* that any such settlement will be subject to prior approval (not to be unreasonably withheld unless such Patent covers both a Product in a Licensed Field and a product that is not a Product in a Licensed Field) by Translate Bio if it adversely affects any right of Translate Bio or any of its Affiliates or licensors or imposes any obligation on Translate Bio or any Affiliate of Translate Bio.

12.7.2.6 In the event either Party brings an infringement action in accordance with this Section 12.7, such Party will notify the other Party at least [**] prior to filing such action. Where an enforcement action is brought under Section 12.7.2.2 or 12.7.2.3, the non-enforcing Party will, at the enforcing Party's reasonable request and expense, reasonably assist the enforcing Party, including, in the event that it is determined that the non-enforcing Party is an indispensable Party to such action, by being named as a party in such action, and cooperate in any such action at the enforcing Party's request; *provided*, *however* that neither Party will be required to transfer any right, title, or interest in or to any of its Patents (or other assets) to the other Party or a Third Party to confer standing on a Party hereunder. In addition, if either Party brings an infringement action hereunder, the other Party will have the right to be represented separately in such action by counsel of its own choice, at its own expense.

12.7.2.7 All Recoveries with respect to any action under this Section 12.7.2 will first be applied *pro rata* to reimburse the Parties' respective reasonable costs and expenses incurred in accordance with this Section 12.7.2 and any remaining amounts shall be retained by the enforcing Party, except where such Recoveries are obtained under Section 12.7.2.2 and 12.7.2.3 with respect to the enforcement of a Patent against an infringing product in a Licensed Field, in which case the Recoveries (after deduction of each Party's expenses on a pro rata basis) will be retained by or paid to Sanofi and shall be treated as Net Sales, and Sanofi shall pay Translate Bio a royalty in respect of such Recovery in accordance with Section 7.5 (Royalties and Royalty Reductions). If any Recovery obtained pursuant to Section 12.7.2.2 and 12.7.2.3 is attributable to both (i) enforcement of a Patent against an infringing product in a Licensed Field and (ii) enforcement of a Patent against an infringing product outside the Licensed Fields, the Parties shall cooperate to reasonably allocate such Recovery to such Patents.

12.7.2.8 Sanofi shall have no right to exercise its rights under this Section 12.7.2 to enforce any Licensed Technology or Licensed Improvement against any actual, alleged or threatened infringement to the extent such infringement does not arise from the development, manufacture or commercialization of a vaccine that contains mRNA.

12.7.2.9 **Third Party Rights.** The Parties' rights in this Section 12.7 are subject to any terms of any Pre-Existing Agreements and Future Agreements, where applicable.

12.7.3 **Enforcement: Jointly-owned Collaboration Patents**

12.7.3.1 In response to any Infringement Notice, Translate Bio will have the first right, but not the obligation, at its sole expense and through counsel of its choosing, to control the enforcement (by initiating an infringement action or taking other appropriate legal action) against any actual, alleged or threatened infringement of any Jointly-owned Collaboration Patents against any Third Party where such infringement is (1) outside the Licensed Fields and (2) unrelated to any vaccine use, including the defense and settlement thereof; *provided, however,* that the prior written consent (not to be unreasonably withheld) of Sanofi is required where such Patents Cover a Product in a Licensed Field. If, however, Translate Bio does not initiate an infringement action or otherwise take affirmative measures to abate any such actual, alleged, or threatened Third Party infringement within [**] of receiving an Infringement Notice, then Sanofi will have the right, but not the obligation, at its own expense, to bring suit (or take other appropriate legal action) against any such actual, alleged or threatened infringement of such Patents by a Third Party (1) outside the Licensed Fields and (2) unrelated to any vaccine use (except in regard to vaccines pertaining to [**]), including the defense and settlement thereof. Translate Bio will consent to join such enforcement action if necessary, (such request consents not to be unreasonably withheld) in order to enforce such Patents with respect to such infringing activity, in which case the Parties will promptly discuss such enforcement in good faith.

12.7.3.2 In response to any Infringement Notice, Sanofi will have the first right, but not the obligation, at its sole expense and through counsel of its choosing, to control the enforcement (by initiating an infringement action or taking other appropriate legal action) against any actual, alleged or threatened infringement of any Jointly-owned Collaboration Patents against any Third Party (1) within the Licensed Fields or (2) related to any vaccine use, including the defense and settlement thereof. If Sanofi does not initiate an infringement action or otherwise take affirmative measures to abate any such actual, alleged, or threatened Third Party infringement within [**] of receiving an Infringement Notice, then Translate Bio will have the right, but not the obligation, at its own expense, to bring suit (or take other appropriate legal action) against any such actual, alleged or threatened infringement of such Patents by a Third Party (1) within the Licensed Fields or (2) related to any vaccine use, including the defense and settlement thereof; *provided, however,* that Sanofi will not have such right when the infringement pertains to [**]. Sanofi will consent to join such enforcement action if necessary, (such request consents not to be unreasonably withheld) in order to enforce such Patents with respect to such infringing activity, in which case the Parties will promptly discuss such enforcement in good faith.

12.7.3.3 With regard to any suit referred to in either Section 12.7.3.1 or 12.7.3.2: The enforcing Party may, but is not obligated, (a) to bring suit in its own name, or if required by applicable Law, jointly with the other Party, for infringement of the applicable Patents; and (b) in any such suit, to enjoin infringement and to collect damages, profits, and awards of whatever nature recoverable for such infringement. The enforcing Party has the right to control settlement of any claim or suit for infringement, including by granting or requesting the other Party to grant the infringing party a sublicense under and in accordance with the provisions of Section 9.8 or 10.7 of this Agreement; *provided*, *however*, that any such settlement will be subject to prior approval (not to be unreasonably withheld) of the other Party if it adversely affects any right of the other Party or any of its Affiliates or licensors or imposes any obligation on the other Party, and/or its Affiliates and/or Sublicensees.

12.7.3.4 In the event either Party brings an infringement action in accordance with this Section 12.7.3, such Party will notify the other Party at least [**] prior to filing such action. The non-enforcing Party will, at the enforcing Party's reasonable request and expense, reasonably assist the enforcing Party with respect to any enforcement of any Jointly-owned Collaboration Patent, including, in the event that it is determined that the non-enforcing Party is an indispensable Party to such action, by being named as a party in such action, and cooperate in any such action at the enforcing Party's request; *provided*, *however*, that neither Party will be required to transfer any right, title, or interest in or to any of its Patents to the other Party or a Third Party to confer standing on a Party hereunder. In addition, if either Party brings an infringement action hereunder, the other Party will have the right to be represented separately in such action by counsel of its own choice, at its own expense.

12.7.3.5 With regard to any Recoveries resulting from a suit referred to in either Section 12.7.3.1 or 12.7.3.2: All Recoveries for enforcement outside of the Licensed Fields will be retained by or paid to Translate Bio; *provided*, *however* that if Sanofi brings an action to enforce any Patent outside of the Licensed Fields (*e.g.*, for any vaccine related use), such Recoveries will first be applied *pro rata* to reimburse the Parties' respective reasonable costs and expenses and any remaining amounts will be split equally between the Parties. All Recoveries for enforcement within a Licensed Field will first be applied *pro rata* to reimburse the Parties' respective reasonable costs and expenses and any remaining amounts will be retained by or paid to Sanofi, and the Recoveries (after deduction of each Party's expenses on a *pro rata* basis) shall be treated as Net Sales and Sanofi shall pay Translate Bio a royalty in respect of such Recovery in accordance with Section 7.5 (Royalties and Royalty Reductions). If any Recovery is attributable to both (i) enforcement of a Patent against an infringing product in Licensed Field and (ii) enforcement of a Patent against an infringing product outside Licensed Fields, the Parties shall cooperate to reasonably allocate such Recovery to such Patents.

12.7.4 **Enforcement: Sanofi solely-owned Collaboration Patents and Patents Covering Sanofi Improvements.**

12.7.4.1 Sanofi will have the sole right to control the enforcement of any Sanofi solely-owned Collaboration Patents and Patents Covering Sanofi Improvements against any Third Party. All Recoveries for such enforcement will first be applied *pro rata* to reimburse the Parties' respective reasonable costs and expenses and Sanofi shall retain any remaining Recoveries associated with any proceeding conducted by Sanofi under this Section 12.7.4; *provided*, *however that* such Recovery shall be included in Net Sales with respect to Derived Patents or Sanofi solely-owned Collaboration Patents enforced against any infringing product in any Licensed Field.

12.7.4.2 Sanofi may, but is not obligated, (a) to bring suit in its own name, or if required by applicable Law, join Translate Bio for infringement of Sanofi solely-owned Collaboration Patents and Patents Covering Sanofi Improvements; and (b) in any such suit, to enjoin infringement and to collect, damages, profits, and awards of whatever nature recoverable for such infringement.

12.7.4.3 Translate Bio will, at the Sanofi's reasonable request and expense, reasonably assist Sanofi with respect to any enforcement of any Sanofi solely-owned Collaboration Patents, including, in the event that it is determined that Translate Bio is an indispensable Party to such action, by being named as a party in such action, and cooperate in any such action at the enforcing Party's request.

12.8 **No Liability**. No Party will bear any liability to the other Party as a consequence of any litigation conducted pursuant to Section 12.7.2, 12.7.3 or 12.7.4 (as applicable) for any unfavorable decision regarding the same, including any decision holding any Patent is invalid or unenforceable, as long as such Party has complied with its obligations under such Section as the case may be.

12.9 **Patent Extensions**. As between the Parties and subject to the remainder of this Section 12.9, Sanofi will at all times have the sole right to make decisions regarding, and to apply for, patent term extensions in the Territory (including in the United States with respect to extensions pursuant to 35 U.S.C. § 156 *et. seq.* and in other jurisdictions pursuant to supplementary protection certificates, and in all jurisdictions with respect to any other extensions that are now or become available in the future, wherever applicable (collectively, the "**Patent Extensions**"), in each case including whether or not to do so. Sanofi may exercise its rights in this Section 12.9 through any Affiliate or Sublicensee. To the extent that Sanofi desires to apply a Patent Extension to a Licensed Patent or a Patent in Licensed Improvements, then Translate Bio's prior written consent shall be required (such consent not to be unreasonably withheld unless such Patent covers both a Product in a Licensed Field and a product that is not a Product in a Licensed Field), and, following such consent and to the extent reasonably and legally required to obtain any such Patent Extension in a particular country, Translate Bio will make available to Sanofi copies of all necessary documentation to enable Sanofi to use the same for the purpose of obtaining Patent Extensions in such country, at Sanofi's reasonable request and expense.

12.10 **Instituting Interference, Opposition, and Revocation Actions**.

12.10.1 If the Parties mutually determine that, based upon the review of a Third Party's Patent or other rights, it may be desirable to jointly provoke or institute an interference, opposition, revocation or post-grant review, or make any observation or submission during examination with respect to any such Third Party's rights, or institute any patent office proceedings with respect thereto (such action, if the Parties so mutually agree, a "**Joint Action**"), then the Parties will be responsible for coordinating such Joint Action and the Parties shall bear their own costs of such Joint Action. The Parties may enter into a separate agreement setting forth their additional rights and obligations in respect of such Joint Action.

12.10.2 Each Party, at its own expense, may separately determine whether or when to provoke or institute an interference, opposition, revocation or post-grant review or make any observation or submission during examination with respect to any Third Party's Patents or commence any other patent office proceedings with respect thereto, independently of the other Party.

12.10.3 Unless otherwise mutually agreed by the Parties per Section 12.10.1 or by one Party proceeding independently per 12.10.2, (a) if such Third Party's rights (1) do not pertain to the Licensed Fields and (2) are unrelated to any vaccine use, then Translate Bio may, at its cost, elect to control (including selection of counsel for such action) such Joint Action, or (b) if such Third Party's rights (1) pertain to the Licensed Fields or (2) are related to any vaccine use, then Sanofi may, at its cost, elect to control (including selection of counsel for such action) such Joint Action, or (c) in the event such Third Party's rights pertains to both (1) uses within the Licensed Fields and/or other vaccine uses, and also (2) uses outside the Licensed Fields and/or unrelated to vaccine uses, as the case may be, then Sanofi will be entitled to control such Joint Action, (including selection of counsel for such action), in which case Sanofi will bear the costs of the same.

12.10.4 **Third Party Rights.** The Parties' rights in this Section 12.10 are subject to any terms of any Pre-Existing Agreements or Future Agreements, where applicable.

13. CONFIDENTIALITY, PUBLICATIONS AND PRESS RELEASES

13.1 **Confidentiality; Exceptions**. Except to the extent expressly authorized by this Agreement or otherwise agreed in writing, the Parties agree that, during the Term and for [**] years thereafter (and thereafter, with respect to any information while it remains a trade secret of the disclosing Party or any of its Affiliates under applicable Law), the receiving Party shall, and shall ensure that its Affiliates will, keep confidential and will not publish or otherwise disclose or use for any purpose any and all information or materials related to activities contemplated hereunder that is furnished to it by the other Party or its Affiliates or representatives pursuant to

this Agreement and is identified by the disclosing Party as confidential, proprietary or the like, or that the receiving Party has reason to believe is confidential based upon its own similar information (collectively, "**Confidential Information**"). Notwithstanding anything to the contrary herein, (i) all Translate Bio Collaboration Technology is Confidential Information of Translate Bio, with Translate Bio considered the disclosing Party and Sanofi considered the receiving Party, (ii) all Sanofi Bio Collaboration Technology is Confidential Information of Sanofi, with Sanofi considered the disclosing Party and Translate Bio considered the receiving Party, (iii) all Collaboration Technology jointly owned by the Parties is Confidential Information of each Party, with each Party considered the disclosing Party and each Party considered the receiving Party, such that neither Party shall disclose any jointly owned Collaboration Technology except as expressly permitted under this Article 13. Confidential Information includes any information which was disclosed by a Party or any of its Affiliates to the other Party or any of its Affiliates pursuant to the Confidential Disclosure Agreement and which, as of the Closing Date, is considered "Confidential Information" (as defined in the Confidential Disclosure Agreement) and is not subject to Section 4(a), 4(b), 4(c) or 4(d) of the Confidential Disclosure Agreement.

13.2 Sanofi shall not disclose to Translate Bio any confidential Know-How or Material that is an improvement, modification, refinement, correction, evolution or enhancement developed outside the Collaboration that is not a Sanofi Improvement, unless Sanofi first provides a written request to Translate Bio to provide such disclosure and receives from Translate Bio its written consent to receive such disclosure, in each instance with particular reference to Section 1.92 and to this Section 13.2 of the Agreement.

13.3 Each Party will have no right to, and will not, utilize any Confidential Information of the other Party for activities outside of those specified in the Collaboration or outside the licenses in the fields granted herein. In particular, neither Party may use Confidential Information of the other Party for activities related to the research, development, making, having made, using, registering, selling, having sold, offering for sale, importing, having imported, exporting or otherwise developing or commercializing any product in any field other than as expressly licensed to the receiving Party hereunder.

13.4 In any event, Sanofi and its Affiliates shall not disclose Translate Bio's Confidential Information to [**], or any of their respective Affiliates; *provided however that* the foregoing shall not be construed as an obligation on the part of Sanofi or its Affiliates to (i) not contract with in the future or (ii) to not perform under any contract which exists as of the Execution Date, in either case with any of the aforementioned Persons, but Sanofi and its Affiliates shall comply with this Agreement.

13.5 The term "**Confidential Information**" will not include any information to the extent that it can be established by contemporaneous written documentation by the receiving Party that such information:

(a) was obtained or was already known by the receiving Party or any of its Affiliates without obligation of confidentiality as a result of disclosure from a Third Party that neither the receiving Party nor any of its Affiliates knew was under an obligation of confidentiality to the disclosing Party or any of its Affiliates with respect to such information;

(b) was generally available to the public at the time of its disclosure by the disclosing Party or any of its Affiliates to the receiving Party or any of its Affiliates (or, with respect to Collaboration Technology, at the time of its creation) through no act or omission of the receiving Party or its Affiliates in breach of this Agreement or the Confidential Disclosure Agreement;

(c) became generally available to the public after its disclosure by the disclosing Party or any of its Affiliates to the receiving Party or any of its Affiliates (or, with respect to Collaboration Technology, at the time of its creation) other than through any act or omission of the receiving Party or its Affiliates in breach of this Agreement or the Confidential Disclosure Agreement; or

(d) was independently discovered or developed by the receiving Party or its Affiliates (without reference to or use of Confidential Information of the disclosing Party).

13.6 **Authorized Disclosure**. Except as expressly provided otherwise in this Agreement, each Party may disclose Confidential Information of the other Party solely as follows:

(a) as necessary in conducting the Collaboration activities contemplated, or exercising rights under Section 9.1 (Exclusive Licenses Granted to Sanofi), Section 9.5 (Grants to Translate Bio under Sanofi Improvements), Section 9.6 (Grants to Translate Bio under Sanofi Collaboration Technology) or Section 9.7 (Research Grant), as applicable or performing obligations under this Agreement, under appropriate confidentiality provisions at least as stringent as those of this Agreement;

(b) to the extent such disclosure is to a Governmental Authority for purposes of complying with applicable Laws with respect to performance under this Agreement (including, as applicable, filing Regulatory Filings, obtaining Market Approval or fulfilling post-approval regulatory obligations for Products), or as otherwise required by applicable Law; *provided that* if a Party is required by applicable Law to make any such disclosure of the other Party's Confidential Information it will, except where impracticable for necessary disclosures (for example, in the event of medical emergency), give reasonable advance notice to the other Party of such disclosure requirement and, in the case of each of the foregoing exceptions pursuant to this subsection (b), will use its reasonable efforts to secure confidential treatment of such Confidential Information required to be disclosed;

(c) to advisors (including external counsel and accountants) on a need to know basis in support of the purposes of this Agreement, in each case under appropriate confidentiality provisions or professional standards of confidentiality substantially equivalent to or at least as stringent as those of this Agreement; or

(d) to the extent mutually agreed to by the Parties in writing.

13.7 **Disclosure required by Pre-Existing Agreements and Future Agreements.** Either Party may, only to the extent expressly required by a Pre-Existing Agreement or Future Agreement, disclose information to a Third Party counterparty to such Pre-Existing Agreement or Future Agreement provided that the disclosing Party first: (1) provides the other Party with a draft of the proposed disclosure for review; (2) if permitted by a Pre-Existing Agreement or Future Agreement where requested, the disclosing Party shall redact from any such disclosure to any such Third Party information which is competitively sensitive and/or contains information of any Third Party, which if disclosed to such counterparty would constitute unauthorized disclosure. Any Party may request in writing and at its sole expense, to obtain verification of accuracy of information redacted pursuant to this Section 13.7 through an independent party (such as independent counsel).

13.8 **Disclosure for Patent Purposes.** Sanofi will have the right to disclose Translate Bio's Confidential Information, subject to this Article 13 and Article 12, solely to the extent reasonably necessary to exercise Sanofi's right to prepare, file, prosecute, maintain and extend the Jointly-owned Collaboration Patents, Sanofi solely-owned Collaboration Patents and Patents Covering Sanofi Improvements, subject to Translate Bio's prior written consent (not to be unreasonably withheld or delayed), and provided that Sanofi will take reasonable and lawful actions to avoid or minimize the degree of disclosure. Translate Bio will have the right to disclose Sanofi's Confidential Information, subject to this Article 13 and Article 12, solely to the extent reasonably necessary to exercise Translate Bio's right to prepare, file, prosecute, and maintain Translate Bio solely-owned Collaboration Patents, jointly-owned Collaboration Patents and Patents Covering Translate Bio Improvements, subject to Sanofi's prior written consent (not to be unreasonably withheld or delayed), and *provided that* Translate Bio will take reasonable and lawful actions to avoid or minimize the degree of disclosure.

13.9 **Confidential Treatment of Terms and Conditions**. The Parties agree that the existence and terms and conditions of this Agreement will be Confidential Information of each Party, and such material terms and conditions will not be disclosed, except (i) as otherwise permitted under Section 13.6 (Authorized Disclosure), (ii) to any actual or bona fide potential acquirer, investor, lender, licensee or sublicensee, under appropriate confidentiality provisions at least as stringent as those of this Agreement, or (iii) if required by applicable Law (including disclosure of a redacted version of this Agreement in a relevant US Securities and Exchange Commission (SEC), or any other securities exchange filing); *provided*, *however*, that, with respect to complying with the disclosure requirements of any Governmental Authority in connection with any required filing of this Agreement, the Parties will consult with one another concerning which terms of this Agreement will be requested to be redacted in any public disclosure of this Agreement, but the Party required to disclose this Agreement shall have the right to disclose any information required to be disclosed under applicable Law, as determined in consultation with its counsel, and in any event each Party will seek reasonable confidential treatment for any public disclosure by any such Governmental Authority.

13.10 **Press Releases**. Notwithstanding Section 13.9 (Confidential Treatment of Terms and Conditions), one or more of the Parties may issue a press release to announce the execution of this Agreement, which will be substantially in the form attached hereto as Schedule 13.10 (Press Releases) and which will be (i) finalized by mutual agreement of the Parties as soon as possible following the Execution Date and (ii) for use in responding to inquiries about this

Agreement. Thereafter, Translate Bio and Sanofi may each disclose to Third Parties (including in media interviews and disclosures to financial analysts) the information contained in such press release without the need for further approval by the other*; provided that* such information is still accurate. Subject to the preceding sentence, each Party will have the right to issue additional press releases and disclosures in regards to the terms of this Agreement only with the prior approval of the other Party; and further Translate Bio will not make any public announcement concerning achievement of any Milestone without the prior written consent of Sanofi, which consent may be withheld; *provided*, *however, that* any disclosure which is required by applicable Law or the rules of the US Securities and Exchange Commission (SEC) or any securities exchange, as reasonably advised by the disclosing Party's counsel, may be made without the prior consent of the other Party, along with a press release commensurate in scope with such disclosure, although such other Party shall be given prompt notice of any such legally required disclosure and the disclosing Party shall, to the extent feasible, provide such other Party an opportunity to comment on the proposed disclosure.

13.11 **Publications**.

13.11.1 During the Term of this Agreement, each Party agrees to (i) provide the other Party the opportunity to review any proposed abstracts, manuscripts or other form of public disclosure of scientific results under this Agreement, including, without limitation, any such public disclosure in the form of posters, student thesis, slides, texts of oral presentations, and texts of any transmission through any electronic media, which relate to any Product in a Licensed Field (each, a "**Publication**") at least [**] prior to their intended submission for publication and (ii) upon request, not to submit any such Publication until the other Party is given a reasonable period of time, not to exceed [**], to secure Patent protection for any material in such Publication which it believes to be patentable. Except as provided for in Section 13.6 (Authorized Disclosure) 13.9 (Confidential Treatment of Terms and Conditions) or 13.10 (Press Releases), no Party shall have the right to publish or present or otherwise disclose Confidential Information of the other Party without the prior written consent of such other Party, which consent may be withheld.

13.11.2 During the Collaboration Term, prior to submitting a proposed Publication under Section 13.11.1, the Party wishing to draft any proposed Publication shall first review the purpose and a draft abstract of the proposed Publication through the JSC.

13.11.3 Except as otherwise provided in herein with respect to the filing (and subsequent publication) of Collaboration Patents, no Party shall publish any Collaboration Technology that is Confidential Information of the other Party without such other Party's prior consent.

13.12 **Use of Names.** No right, express or implied, is granted to either Party by this Agreement to use in any manner any trademark or trade name of the other Party including the names "Sanofi", "Sanofi Pasteur", "Translate" and "Translate Bio" without the prior written consent of the owning Party; *provided*, *however*, that each Party may use the name (but not as a trademark, nor any other trademark) of the other Party as required by applicable Law or as otherwise to exercise its rights or perform its obligations under this Agreement.

14. REPRESENTATIONS AND WARRANTIES

14.1 **Mutual Representations and Warranties**. Each of the Parties hereby represents and warrants (on its own behalf and on behalf of its Affiliates, where applicable) as of the Execution Date to the other Party as follows:

(a) it is duly organized and validly existing under the applicable Law of its jurisdiction of incorporation and it has full corporate power and authority and has taken all corporate action necessary to enter into and perform this Agreement;

(b) this Agreement is a legal and valid obligation binding upon such Party and enforceable in accordance with its terms. The person or persons executing this Agreement on such Party's behalf have been duly authorized to do so by all requisite corporate action;

(c) it has not been debarred or the subject of debarment proceedings by any Governmental Authority;

(d) to its Knowledge, it and its Affiliates have not violated the U.S. Foreign Corrupt Practices Act, UK Bribery Act Foreign Corrupt, and any other Laws governing bribery, money laundering or other corrupt practice and behavior;

(e) it is licensed, registered, or qualified under applicable Law to do business, and has obtained, or will obtain by the Closing Date, such licenses, consents, authorizations or completed such registrations or made such notifications as may be necessary or required by applicable Law (including those required pursuant to the HSR Act); and

(f) to its Knowledge, the execution, delivery and performance of this Agreement, and compliance with its terms and provisions, and the consummation of the transaction contemplated hereby, by such Party will not conflict, interfere or be inconsistent with, result in any breach of or constitute a default under, any agreement or other instrument or understanding, oral or written, to which it, or any of its Affiliates, is a party or by which it, or any of its Affiliates, is bound, nor to its knowledge violate any applicable Law; and it is, as between the Parties, solely responsible to ensure compliance by it and its Affiliates with all applicable Laws.

14.2 **Translate Bio's Representations and Warranties.** In addition to the representations and warranties set forth in Section 14.1 (Mutual Representations and Warranties), Translate Bio hereby represents and warrants (on its own behalf and on behalf of its Affiliates, where applicable) to Sanofi that, as of the Execution Date:

(a) neither Translate Bio or any its Affiliates have received written notice from any Third Party that any issued and enforceable Patent of such Third Party would be infringed by the development, manufacture, distribution, marketing, sale, importation or use of a Product in a Licensed Field containing Licensed Technology;

(b) Translate Bio or its Affiliates Control the Licensed Technology, and have the right to grant to Sanofi the rights to such Licensed Technology as set forth in Section 9.1 in the Licensed Fields, and, other than the Pre-Existing Agreements and licenses to Service Providers, the Licensed Technology is not subject to any lien or other encumbrance in favour of any Third Party that materially conflicts with the rights or licenses of Sanofi hereunder;

(c) Translate Bio has not, and none of its Affiliates have, received written notice from any Third Party that any Third Party has, and to Translate Bio's Knowledge, no Third Party has otherwise, challenged or threatened to challenge the validity or enforceability of any Licensed Patent;

(d) Schedule 1.54 (Licensed Patents) sets forth a complete and accurate list of all Licensed Patents;

(e) no Licensed Patent is the subject of any pending interference, opposition, cancellation or patent protest;

(f) except as expressly set forth in the Shire Agreement, neither Translate Bio nor any of its Affiliates have granted any right to any Third Party other than any Service Provider under any Licensed Patents or other Patent required by Sanofi under this Agreement that conflicts with the rights licensed or granted to Sanofi and its Affiliates hereunder;

(g) prior to the Execution Date, Translate Bio disclosed to Sanofi true, complete, and correct copies of the Pre-Existing Agreements, including all amendments and modifications thereto, and any material notices to the Pre-Existing Agreements and Translate Bio has the right to grant sublicenses to Sanofi and its Affiliates in accordance with the terms of the Pre-Existing Agreements;

(h) there are no Third Party rights which Translate Bio or its Affiliates has Knowledge would be infringed by any Party in the performance of any Party's obligations or exercise of any Party's rights hereunder, including the research, development, manufacture, sale, import or use of Products, in each case, as set forth in a Collaboration Plan;

(i) Translate Bio has conducted the prosecution and maintenance of the Licensed Patents in accordance with applicable Laws and professional standards;

(j) to Translate Bio's Knowledge, all official fees payable to a patent office or equivalent in any country in connection with the filing, prosecution and maintenance of the Licensed Patents have been paid on or before their due date and all actions required to be taken with such patent offices in connection with filing, prosecution and maintenance of the Licensed Patents have been taken within any time periods prescribed by the rules of such patent offices and to Translate Bio's Knowledge there is no reason that any Licensed Patents will be found to be invalid or unenforceable as a result of the non-payment of such fees;

(k) to Translate Bio's Knowledge, no Third Party is engaged in manufacturing or commercial activities which, or development activities which taken through to commercialisation would, infringe or misappropriate the Licensed Patents;

(l) to Translate Bio's Knowledge, the research and development of the Licensed Technology by or on behalf of Translate Bio has been conducted in compliance in all material respects with all applicable Laws;

(m) Translate Bio or its Affiliates are the owner of or have the right to use all the Regulatory Filings existing on the Execution Date for Licensed Technology;

(n) there is no pending action or action threatened in writing (or to Translate Bio's or its Affiliate's knowledge, threatened orally) by relevant Governmental Authorities to place a clinical hold order on, or otherwise terminate or suspend, any of the Regulatory Filings which utilized the Licensed Technology in existence as of the Execution Date in any of the Licensed Fields and/or Optioned Fields;

(o) Translate Bio or its Affiliates have filed with the relevant Governmental Authorities all required notices, amendments and annual reports, as well as adverse event reports, with respect to the Regulatory Filings for Licensed Technology;

(p) to Translate Bio's Knowledge, Translate Bio or its Affiliates have, as of the Execution Date, complied with all material terms of the MIT License and are not in default of such agreements, and have not received any notice of breach or termination from any Third Party in respect of such agreement;

(q) to Translate Bio's Knowledge, Translate Bio or its Affiliates have, as of the Execution Date, complied with all material terms of the Shire Agreement and are not in default of such agreement;

(r) as of the Execution Date, Translate Bio has not initiated any Insolvency Event proceeding, and there is no Insolvency Event proceeding under any applicable Laws pending against Translate Bio or any of its Affiliates; and

(s) to Translate Bio's Knowledge as of the Execution Date, taking into account the contemplation of this Agreement, there is no Insolvency Event that threatens Translate Bio or any of its Affiliates.

14.3 **Mutual Covenants**. Each Party hereby covenants, on behalf of itself and its Affiliates, to the extent applicable, to the other Party that, during the Term:

(a) it and its Affiliates will not grant or assign any right to any Third Party or any other property right that conflicts with the rights granted to the other Party hereunder;

(b) it and its Affiliates will not knowingly employ or retain any employee or agent that has been debarred or the subject of debarment proceedings by any Governmental Authority; and

(c) it will ensure its and its Affiliates' compliance with all applicable Laws in connection with its activities, and the exercise of the licenses granted to it, under this Agreement.

14.4 **Additional Covenants**.

(a) Each Party will cause its own employees or the employees of its Affiliates who perform any activities on behalf of such Party under this Agreement, and will use reasonable efforts to require any Service Providers or, with respect to Sanofi, its Affiliates and Sublicensees, who perform any activities on behalf of such Party under this Agreement, to assign to the applicable Party all right, title and interest in any Collaboration Technology arising from such activities.

(b) If at any time during the Term any Insolvency Event proceeding under any applicable Law is initiated by or instituted against Translate Bio or any of its Affiliates, it will immediately notify Sanofi in writing in accordance with Section 17.11.

14.5 **Disclaimer of Warranties**. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT OR IN ANY ANCILLARY AGREEMENT REFERRED TO HEREIN, TRANSLATE BIO AND SANOFI EXPRESSLY DISCLAIM ANY AND ALL REPRESENTATIONS AND WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE COLLABORATION, THE RIGHTS GRANTED HEREIN AND THIS AGREEMENT, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OR NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS.

14.6 **Limitation of Liability**. IN NO EVENT WILL TRANSLATE BIO OR SANOFI BE LIABLE TO THE OTHER PARTY OR ANY OF ITS AFFILIATES FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE, EXEMPLARY OR OTHER INDIRECT DAMAGES, OR ANY LOST PROFITS, LOST REVENUES OR SAVINGS, SUFFERED OR INCURRED BY SUCH OTHER PARTY OR ITS AFFILIATES IN CONNECTION WITH THIS AGREEMENT. THE FOREGOING SENTENCE WILL NOT LIMIT (1) THE OBLIGATIONS OF EITHER PARTY TO INDEMNIFY THE OTHER PARTY FROM AND AGAINST SUCH DAMAGES AS ARE CLAIMED BY OR AWARDED TO A THIRD PARTY WITH RESPECT TO THIRD PARTY CLAIMS UNDER SECTION 15.1 (INDEMNITY BY TRANSLATE BIO) OR SECTION 15.2 (INDEMNITY BY SANOFI), (2) A PARTY'S LIABILITY FOR DEATH OR PERSONAL BODILY INJURY CAUSED BY ITS NEGLIGENCE, FRAUD OR WILLFUL MISCONDUCT, (3) ANY BREACH OF CONFIDENTIALITY OBLIGATIONS HEREUNDER OR ANY BREACH OF ARTICLES 9 OR 10; OR (4) ANY LIABILITY THAT MAY NOT BE LIMITED UNDER APPLICABLE LAW.

15. INDEMNIFICATION AND INSURANCE

15.1 **Indemnity by Translate Bio**. Translate Bio will defend, indemnify, and hold harmless Sanofi, its Affiliates, and their respective directors, officers, employees, agents and representatives (collectively, "**Sanofi Indemnitees**"), at Translate Bio's cost and expense, from and against any and all Losses arising out of any Third Party Claims brought against any Sanofi Indemnitee to the extent such Losses result from: (a) the negligence or willful misconduct of Translate Bio or its Affiliates (or any employees, agents or representatives of any of them) in performing Translate Bio's obligations or exercising Translate Bio's rights hereunder; (b) a breach by Translate Bio of this Agreement, including a breach of Translate Bio's representations or warranties in Section 14.2 ((Translate Bio's Representations and Warranties), or any Ancillary Agreement; (c) any activities conducted by or on behalf of Translate Bio or its Affiliates in relation to development or manufacture of any Product in the Licensed Field before the Closing Date; (d) any Third Party Claim that any Licensed Know-How or Licensed Materials disclosed by or provided by Translate Bio is owned by such Third Party, has been misappropriated by Translate Bio or any of its Affiliates and is being used under this Agreement in relation to the development, manufacture or commercialisation of Products in a Licensed Field without a valid license from such Third Party; *provided*, *however*, that the foregoing shall be subject to the Supply Agreement, as applicable; and (e) any claim arising from the alleged breach by Translate Bio of any Pre-Existing Agreement or Future Agreements, except to the extent that such claim arises from the actions or omissions of Sanofi or any of its Affiliates.

15.2 **Indemnity by Sanofi**. Sanofi will defend, indemnify, and hold harmless Translate Bio, its Affiliates, and their respective directors, officers, employees, agents and representatives (collectively, "**Translate Bio Indemnitees**"), at Sanofi's cost and expense, from and against any and all Losses arising out of any Third Party Claims brought against any Translate Bio Indemnitee to the extent such Losses result from: (a) the negligence or willful misconduct of Sanofi or its Affiliates (or any employees, agents or representatives of any of them) in performing Sanofi's obligations or exercising Sanofi's rights hereunder, (b) a breach by Sanofi of this Agreement, including a breach of Sanofi's representations or warranties in Section 14.1 (Mutual Representations and Warranties), or any Ancillary Agreement, (c) the development, manufacture or commercialization of any Product in a Licensed Field by or on behalf of Sanofi, any of its Affiliates or its Sublicensees or (d) any claim arising from the alleged breach by Sanofi any of its Affiliates or its Sublicensees of its/their obligations under (i) any sub-license granted under the MIT License or (ii) any Future Agreement except to the extent that such claim arises from the actions or omissions of Translate Bio or any of its Affiliates.

15.3 **Claim for Indemnification**. Whenever any Third Party Claim arises for which an Translate Bio Indemnitee or a Sanofi Indemnitee ("**Indemnified Party**") may seek indemnification under this Article 15 (Indemnification and Insurance), the Indemnified Party will promptly notify the indemnifying Party ("**Indemnifying Party**") of such Third Party Claim; *provided that* the failure by an Indemnified Party to give such notice will not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that the Indemnifying Party is actually prejudiced as a result of such failure; and further *provided*, *however*, *that* if the Indemnified Party believes that its interest may be divergent from those of the Indemnifying Party, in such cases the Indemnified Party may participate in the defence of the claim using its own counsel at its own cost. The Indemnifying Party will have

exclusive control of the defence and settlement of all Third Party Claims for which it is responsible for indemnification and will assume defence thereof at its own expense promptly upon notice of such Third Party Claim. The Indemnified Party will reasonably cooperate with the Indemnifying Party in the defense of a Third Party Claim. The Indemnifying Party may settle any Third Party Claim without the prior written consent of the Indemnified Party; *provided that* the Indemnified Party's consent will be required if such settlement (x) does not include a complete release from liability on such Third Party Claim, or (y) includes any admission of wrongdoing by the Indemnified Party or that any intellectual property or proprietary right of the Indemnified Party is invalid or unenforceable, or (z) adversely impacts any other rights of the Indemnified Party. Subject to the foregoing (including the Indemnifying Party's right to control any defence and settlement), the Indemnified Party will have the right to employ separate counsel at the Indemnified Party's expense if: (i) there are or may be legal defences available to the Indemnified Party that are different from or additional to those available to the Indemnifying Party; or (ii) in the reasonable opinion of counsel to the Indemnified Party, an ethical conflict or potential ethical conflict exists between the Indemnified Party and Indemnifying Party that would make such separate representation advisable.

15.4 **Insurance**. Each of the Parties will procure and maintain during the Term (at their own respective expense), insurance policies adequate to cover their respective activities and obligations hereunder and consistent with the normal business practices of prudent biopharmaceutical companies of similar size and scope (or reasonable self-insurance sufficient to provide materially the same level and type of protection). The existence of such insurance will not limit either Party's liability hereunder. Sanofi shall be responsible for obtaining and maintaining insurance for all clinical trials conducted under this Agreement and Translate Bio shall be responsible for obtaining and maintaining insurance covering the storage and transport of Products while in Translate Bio's possession, custody or control in accordance with the terms of any Supply Agreement.

16. TERM AND TERMINATION

16.1 **Term**. This Agreement will become effective on the Closing Date and will continue unless earlier terminated in accordance with this Article 16 (Term and Termination) ("**Term**"); *provided*, *however*, that Sections 1, 14.6 and 16.2 and Article 17, this Section 16.1 and Schedule 17.4 shall be effective as of the Execution Date and if the Closing Date does not occur on or before the date that is three (3) months following the Execution Date, either Party may terminate this Agreement on written notice to the other Party and, notwithstanding anything to the contrary herein, no provision hereof shall survive and, for clarity, in such event the Confidential Disclosure Agreement shall again come into effect in accordance with its terms as if it had not been merged into this Agreement in accordance with Section 17.7.

16.2 **Mutual Termination**. The Parties may agree in writing to terminate this Agreement either in its entirety or in part, including on (a) a Licensed Field-by-Licensed Field basis, (b) a country-by-country basis, or (c) with respect to any specific Licensed Patent, Licensed Know-How and/or Licensed Materials, by mutual consent.

16.3 **Termination for Convenience**. Sanofi will have the right to terminate this Agreement in its entirety, or on (a) a Licensed Field-by-Licensed Field basis or (b) a country-by-country basis, or (c) on a Product-by-Product basis, for any reason by providing Translate Bio at least ninety (90) calendar days' prior written notice.

16.4 **Termination for Safety Reason**. Sanofi may terminate this Agreement in its entirety at any time, or on (a) a Licensed Field-by-Licensed Field basis, or (b) a country-by-country basis, on ten (10) calendar days' written notice to Translate Bio if Sanofi reasonably determines, based upon information that becomes available or on analysis of the existing information at any time, that the medical risk/benefit of a Product is so unfavourable that it would be incompatible with the health and welfare of the intended recipients (a "**Safety Concern**").

16.5 **Termination of Rights under MIT License**. Subject to the terms of the MIT License, Sanofi will have the right to terminate this Agreement solely with respect to any rights sublicensed to it by Translate Bio under the MIT License on three (3) months' prior written notice to Translate Bio. Sanofi shall remain liable for payment for all amounts due to Translate Bio arising from such sublicense until the effective date of such termination.

16.6 **Termination for Material Breach**.

16.6.1 In the event of a material breach by a Party or its Affiliates of this Agreement, the other Party will have the right to terminate this Agreement (and all Ancillary Agreements) in accordance with this Section 16.6 (Termination for Material Breach). The terminating Party may terminate this Agreement (and all Ancillary Agreements) in its entirety, or on (a) a Licensed Field-by-Licensed Field basis or (b) a country-by-country basis or (c) on a Product by Product basis, in the case of any of (a) or (b) or (c), to which such material breach relates, in each case, by written notice to the breaching Party, which notice will specify the nature of such breach in reasonable detail. Such termination will become effective on the date that is [**] after delivery of the notice thereof except if, during the [**] notice period (i) the breaching Party cures such breach, or (ii) if such breach (other than a payment breach) is not curable within such [**] notice period, (A) a plan to remedy the breach has been delivered to the terminating Party within [**] of such notice, (B) the breaching Party diligently and in good faith pursues a cure of such breach in accordance with such plan, and (C) (1) such breach is cured within [**] of the date of delivery of the notice of breach, or (2) if such breach is not cured within such [**] period, such termination will become effective upon the expiration of such [**] period. Notwithstanding the foregoing, in the event of a good faith dispute as to the existence or cure of a material breach under this Agreement (or any Ancillary Agreement), including any good faith dispute as to payments due under this Agreement, the relevant cure period with respect thereto will be tolled pending resolution of such dispute in accordance with the applicable provisions of this Agreement.

16.6.2 In addition to the rights granted to Sanofi in Section 16.6.1, Sanofi shall have the right to terminate and revoke any license granted Translate Bio herein in the event of a material breach by Translate Bio or any of its Affiliates or Sublicensees of any term of this Agreement regarding such rights. Such termination will become effective on the date that is [**] after delivery of the notice thereof except if, during the [**] notice period (i) Translate Bio cures such breach, or (ii) if such breach is not curable within such

[**] notice period, (A) a plan to remedy the breach has been delivered to Sanofi within [**] of such notice, (B) Translate Bio diligently and in good faith pursues a cure of such breach in accordance with such plan, and (C) (1) such breach is cured within [**] of the date of delivery of the notice of breach, or (2) if such breach is not cured within such [**] period, such termination will become effective upon the expiration of such [**] period. Upon the delivery of such notice, the rights granted by Sanofi referred to in such notice shall be of no further force or effect and the provisions of Section 16.8 (Effects of Termination) shall apply *mutatis mutandis*. Notwithstanding the foregoing, in the event of a good faith dispute as to the existence or cure of a material breach under this Agreement, including any good faith dispute as to payments due under this Agreement, the relevant cure period with respect thereto will be tolled pending resolution of such dispute in accordance with the applicable provisions of this Agreement.

16.7 **Termination for Insolvency**.

(a) Each Party will have the right to terminate this Agreement immediately upon written notice if the other Party is the subject of any Insolvency Event, *provided that* such right shall not be available to either Party if the Party subject to the Insolvency Event is subject to a type of Insolvency Event whereby the business of the other Party is continuing in the ordinary course of business.

(b) The Parties agree that all licenses granted under this Agreement are, and will otherwise be deemed to be, for purposes of Section 365(n) of 11 U.S.C. § 101, *et. seq*. ("**Bankruptcy Code**"), licenses of rights to "intellectual property" as defined under the Paragraph 101(35A) of the Bankruptcy Code. The Parties agree that the non-bankrupt Party will retain and may fully exercise all of its rights and elections under applicable Law. The Parties further agree that, in the event of the commencement of bankruptcy proceeding by or against a bankrupt Party, the other Party will be entitled to a complete access to any tangible and intangible property that is licensed to such Party pursuant to the license grants under Article 9, and all embodiments of such tangible and intangible property, but only to the extent provided for in such license grants; and such access and embodiments, if not already available to the other Party or in the other Party's possession, will be promptly made available or delivered to the other Party (a) upon any such commencement of a bankruptcy proceeding, upon the other Party's written request therefor (which request must identify the specific intellectual property), unless the bankrupt Party (or trustee on behalf of the bankrupt Party) elects within [**] to continue to perform all of its obligations under this Agreement or (b) if not delivered under (a) above, upon rejection of this Agreement by or on behalf of the bankrupt Party, upon written request therefore by the other Party.

(c) If the Party involved in the Insolvency Event is Translate Bio, Translate Bio hereby undertakes that it will notify the relevant insolvency officer(s), and reasonably request that such insolvency officer(s) notify(ies) any potential purchaser of the Licensed Technology of the existence of this Agreement and Sanofi's rights hereunder, and that this Agreement and such rights of Sanofi shall remain valid and in force. Sanofi will have the right, at its discretion and expense, to have the licenses granted by Translate Bio to Sanofi hereunder and any have Licensed Patents registered

with the relevant Governmental Authorities and Translate Bio will, upon Sanofi's request, provide Sanofi with reasonable assistance to affect such registrations, if required in connection with any Insolvency Event in order to protect the rights and licenses granted to Sanofi herein.

16.8 **Effects of Termination**.

(a) **Termination of Entire Agreement**. If this Agreement is terminated in its entirety by Sanofi pursuant to Section 16.3 or Section 16.4, or by Translate Bio pursuant to Section 16.6 or Section 16.7, this Agreement shall remain in effect solely with respect to the licenses granted to Translate Bio under Section 9.5 (Grants to Translate Bio under Sanofi Improvements) and Section 9.6 (Grants to Translate Bio under Sanofi Collaboration Technology) unless and until Sanofi thereafter terminates this Agreement pursuant to Section 16.6 or Section 16.7.

(b) **Accrued Obligations**. Termination of this Agreement, in whole or in part, will not release either Party from any liability (including any payment obligations) that, as of the termination date, has already accrued to the other Party or which is attributable to activities prior to such termination.

(c) **Wind Down**. The Parties will conduct any activities associated with the termination of this Agreement in an orderly manner. Until the termination effective date, each Party will continue to meet its respective obligations under this Agreement; *provided*, *however*, that each Party shall use reasonable efforts to minimize the costs of any activities that will not be required after the termination effective date, (including by using reasonable efforts to take actions under Third Party agreements necessary to reduce costs, if applicable) and shall not incur or make any commitments with respect to new costs payable by the other Party without the other Party's prior written consent. If Sanofi terminates this Agreement pursuant to Section 16.3 (Termination for Convenience) during the Collaboration Term, then Sanofi shall pay Translate Bio for the FTE Costs, in accordance with the Collaboration Budget, and its non-cancellable Out-of-Pocket Costs incurred and payable, for [**] from the effective date of such termination (or, if shorter, the remainder of the Collaboration Term had this Agreement not been so terminated).

(d) **Inventory**. If Sanofi has inventory of Products (including raw materials, work in process and finished goods), as of the date on which it receives or delivers any notice of termination, Sanofi may complete the Manufacturing and Commercialization of such Products for a period of not more than [**], *provided that* Sanofi continues to pay to Translate Bio any amounts due it under Article 7. For clarity, Sanofi shall continue to be liable under Article 15 (Indemnification & Insurance) for any Product it manufactures and/or sells in accordance with this Section 16.8(d).

(e) **Confidential Information & Materials**. Within [**] of the termination effective date, each Party shall (a) cease to use and shall destroy the other Party's Confidential Information, except as necessary to exercise any rights that survive termination or for ensuring compliance with the terms of this Agreement (and excluding any automated backup copies thereof), and (b) shall destroy any Materials provided by

the other Party that have not been consumed in the Collaboration and are not needed to exercise of such Party's rights under this Agreement that survive termination, unless the providing Party expressly requests in writing prior to the termination effective date that such Materials be returned to it, in which case the requesting Party shall bear the reasonable costs of shipping such Materials to it.

(f) **Partial Termination**. The provisions of this Section 16.8 (Effects of Termination) shall apply, in the case of a partial termination of this Agreement (*i.e.*, in respect of any specific Licensed Field, country or Product), only to the extent applicable to such Licensed Field, country or Product.

16.9 **Survival**. The following Sections and Articles shall survive the termination of this Agreement in its entirety, for any reason, except as expressly set forth herein) in each case, subject to the effects of termination described in Section 16.8 (Effects of Termination), as applicable: Section 1, Section 7.2 (if the Closing has occurred but payment thereunder has not been made), Section 7.8, Section 7.9, Sections 8.1 through 8.8, Section 9.3, Section 9.5, Section 9.6, Section 9.8.5(a), Section 9.8.5(b), Section 9.11, Section 9.16, Section 10.1, Section 10.7, Section 12.1.1, Section 12.1.4, Section 12.3.1, Section 12.3.3, the remainder of Article 12 with respect to any jointly-owned Collaboration Patents, Article 13, Section 14.5, Section 14.6, Article 15, Section 16.8, Section 16.9, Article 17 and Schedule 17.4, including any defined terms used therein, and, to the extent that Sanofi is exercising rights under Section 16.8(d), Section 6.3.1, Section 6.3.2, Section 6.3.3, Section 6.3.4, Section 6.3.5, Section 6.6, Section 7.4 (other than Section 7.4.3), Section 7.5, Section 7.6 and Section 7.7.

16.10 **No Limitation of Rights**. The rights provided in this Article 16 (Term and Termination) are in addition and without prejudice to any other rights or remedies which the Parties may have with respect to any default or breach of the provisions of this Agreement, or any Ancillary Agreement referenced herein, at equity or law. Termination is not the sole remedy under this Agreement and, whether or not termination is effected, all other remedies at equity or law will remain available to the Parties, except as expressly agreed otherwise herein. Nothing in this Article 16 (Term and Termination) or elsewhere in this Agreement shall prohibit either Party from seeking and obtaining temporary or permanent injunctive or other equitable relief, including specific performance, whether from the Arbitrator or any court of competent jurisdiction, to enforce its rights under this Agreement or any ancillary agreement referenced herein

17. MISCELLANEOUS

17.1 **Affiliates**. Each Party will have the right to exercise its rights and perform its obligations hereunder, in whole or in part, through any of its Affiliates (as long as such entity remains an Affiliate of the relevant Party); *provided that* such Party will be responsible for its Affiliates' performance hereunder and any breach of this Agreement by any such Affiliate shall be considered a breach by such Party. Any Party extending rights or obligations under this Agreement to any of its Affiliates has the option, but not the obligation, to do so through a formal agreement between the Party and its Affiliate.

17.2 **Assignment**.

(a) Except as provided for in this Section 17.2, neither this Agreement nor any rights or obligations hereunder may be assigned or otherwise transferred (whether by operation of applicable Law, or otherwise) by either Party without the prior written consent of the other Party, such consent not to be unreasonably withheld or delayed; *provided that* either Party may assign this Agreement, or any of its rights and obligations hereunder, without prior written consent of the other Party to any Affiliate of such Party (as long as such entity remains an Affiliate of the relevant Party); *provided further that* the assigning Party shall remain liable for the performances of such assigned or transferred obligations.

(b) Either Party may assign this Agreement and all of its rights and obligations hereunder in connection with the sale, transfer, merger or other transaction involving all or substantially all of that part of that Party's business to which this Agreement relates, whether by Change of Control or otherwise.

(c) If either Translate Bio or Sanofi assigns this Agreement to an Affiliate or Third Party and, as a result of such assignment, payments made hereunder are subject to additional withholding tax, the assigning Party shall be responsible for indemnifying and holding the non-assigning Party harmless from and against the resulting additional withholding taxes (including any such additional withholding taxes imposed on such indemnification).

(d) Any assignment not in accordance with this Agreement will be *void ab initio*. Subject to the foregoing, the rights and obligations of the Parties under this Agreement will be binding upon and inure to the benefit of the successors and permitted assigns of the Parties.

17.3 **Change of Control**. In the event of a Change of Control of Translate Bio or its Parent:

(a) all of Translate Bio's obligations under this Agreement shall continue in full force and effect;

(b) if such Change of Control occurs during the Collaboration Term, Sanofi reserves the right to (a) disband any committee formed under Article 2 and (b) terminate with immediate effect the Research Grant under Section 9.7; and

(c) Translate Bio shall not be deemed to Control as of the effective date of such Change of Control, and Sanofi shall not obtain any right or access under this Agreement to, any Know-How, Material or Patent that was not already Controlled by the Pre-Change of Control Entities and licensed to Sanofi under this Agreement prior to the effective date of such Change of Control and, for clarity, no Know-How, Material or Patent that is owned by, licensed to or otherwise Controlled by any entity that becomes an Affiliate of Translate Bio upon or after such Change of Control.

17.4 **Dispute Resolution**. The Parties shall negotiate in good faith and use reasonable efforts to settle any dispute, controversy or claim arising from or related to this Agreement or the breach hereof. If the Parties do not fully settle each such dispute, controversy or claim, and a Party wishes to pursue the matter, then:

(a) In respect of any dispute concerning the validity of a Party's intellectual property rights, each Party may assert any remedy available at law or equity to enforce its rights under this Agreement before a court of competent jurisdiction;

(b) In respect of any dispute regarding inventorship or ownership of Collaboration Technology, in accordance with the process set forth in Section 10.1; and

(c) In respect of all matters other than dispute concerning the validity of a Party's intellectual property rights or the inventorship or ownership of Collaboration Technology, including for example disputes regarding the existence, interpretation, validity or termination of this Agreement, the Parties agree to submit to binding arbitration in accordance with Schedule 17.4 (Binding Arbitration Procedure).

17.5 **Construction**. Whenever the context may require, any pronoun will include the corresponding masculine, feminine and neuter forms. The Parties each acknowledge that they have had the advice of counsel with respect to this Agreement, that this Agreement has been jointly drafted, and that no rule of strict construction will be applied in the interpretation hereof. Unless the context requires otherwise: (i) the words "include", "includes", "including" and "*e.g.*," shall be deemed to be followed by the phrase "without limitation" unless "without limitation" or the like follows any such word; (ii) the word "will" shall be construed to have the same meaning and effect as the word "shall"; (iii) any reference to any applicable Law herein will be construed as referring to such applicable Law as from time to time enacted, repealed or amended, and shall include the rules and regulations promulgated thereunder; (iv) any reference herein to any Person will be construed to include the Person's permitted successors and assigns; (v) the words "herein", "hereof" and "hereunder", and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof except as expressly provided in a specific Section; (vi) all references herein to Articles, Sections, or Schedules, unless otherwise specifically provided, will be construed to refer to Articles, Sections or Schedules of this Agreement; (vii) provisions that require that a Party, the Parties or any committee hereunder "agree", "consent" or "approve" or the like shall require that such agreement, consent or approval be specific and in writing, whether by written agreement or through the exchange of letters or through approved minutes or otherwise as set out in this Agreement; (viii) any definition of or reference to any agreement, instrument or other document refers to such agreement, instrument other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein); and (ix) a capitalized term not defined herein but reflecting a different part of speech than a capitalized term that is defined herein shall be interpreted in a correlative manner. As used in this Agreement, (a) "business day" refers to any day, other than (A) Saturday, (B) Sunday, or (or a day on which a Party that is to perform an action under this Agreement (such as make a payment or receive a notice) is closed under applicable Laws or its internal policies. This Agreement has been drafted in English, and the English version of this Agreement will control.

17.6 **Counterparts**. This Agreement may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts will be deemed an original, will be construed together and will constitute one and the same instrument. Signature pages of this Agreement may be exchanged by facsimile using digital signatures or other electronic means (such as in portable document format (PDF)) without affecting the validity thereof.

17.7 **Entire Agreement**. This Agreement, together with the Ancillary Agreements, constitutes the entire agreement between the Parties as to the subject matter of this Agreement, and supersedes and merges all prior or contemporaneous negotiations, representations, agreements and understandings regarding the same. The Parties agree that any exchanges of Confidential Information before or after the Closing Date shall be subject to the terms of this Agreement and not any prior confidentiality agreement between the Parties (or their Affiliates), including that certain Confidential Disclosure Agreement dated June 27, 2017 executed by Sanofi Pasteur Biologics, LLC and Translate Bio (as may be amended from time to time, the "**Confidential Disclosure Agreement**").

17.8 **Force Majeure**. Neither Party will be liable for delay or failure in the performance of any of its obligations hereunder (other than the payment of money) to the extent such delay or failure is due to causes beyond its reasonable control that could not be avoided using reasonable efforts, which may include acts of God, fires, floods, pandemics, earthquakes, acts of war, terrorism or civil unrest ("**Force Majeure**"); *provided*, *that* the affected Party promptly notifies the other Party in writing (and continues to provide monthly status updates to the other Party for the duration of the effect), and will continue performance to the extent such Party's performance is not limited by the Force Majeure and with reasonable dispatch whenever such causes are removed. In the event of a prolonged condition of Force Majeure or as requested by the unaffected Party, the Parties shall consult and negotiate in good faith regarding reasonable alternative arrangements and appropriate scaling back of their activities to minimize or avoid the effects of the Force Majeure and may appropriately scale back their respective activities during the period affected by such Force Majeure in order to avoid waste or inappropriate usage of resources under the circumstances, and neither Party shall be liable for any such reasonable scale back, or be considered in breach of its obligations under this Agreement (other than obligations to make payments of money to the other Party), as a result of such reasonable scale back.

17.9 **Further Assurances**. Each Party agrees to do and perform all such further acts and things and will execute and deliver such other agreements, certificates, instruments and documents necessary or that the other Party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and to evidence, perfect or otherwise confirm its rights hereunder.

17.10 **Headings**. Headings and captions are for convenience only and are not to be used in the interpretation of this Agreement.

17.11 **Notices**. Any notice required or permitted to be given by this Agreement will be in writing, in English, and will be delivered by overnight courier with tracking, postage prepaid, addressed as set forth in Schedule 17.11 (Notices), unless changed by notice so given. Any such notice will be deemed given on the date delivered. A Party may add, delete (so long as at least one Person is remaining), or change the Persons or addresses to which notices should be sent at any time upon written notice delivered to the other Party in accordance with this Section 17.11 (Notices).

17.12 **Relationship of the Parties**. Each Party is an independent contractor under this Agreement. Nothing contained herein will be deemed to create an employment, agency, joint venture or partnership relationship between the Parties or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. The Parties will operate their own businesses separately and independently and they will hold themselves out as, act as, and constitute independent contractors in all respects and not as principal and agent, partners or joint venturers. Neither Party will have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

17.13 **Severability**. If any provision of this Agreement is held to be invalid, illegal or unenforceable, in any respect or to any extent, then in such respect and to such extent such provision will be given no effect by the Parties and will not form part of this Agreement. To the fullest extent permitted by applicable Law, all other provisions of this Agreement will remain in full force and effect and the Parties will use commercially reasonable efforts to negotiate a provision in replacement of any provision held invalid, illegal or unenforceable that is consistent with applicable Law and achieves, as nearly as possible, the original intention of the Parties.

17.14 **Third Party Beneficiaries**. Except as expressly provided with respect to Sanofi Indemnitees or Translate Bio Indemnities in Article 15 (Indemnification and Insurance), there are no Third Party beneficiaries intended hereunder and no Third Party will have any right hereunder.

17.15 **Waivers and Modifications**. The failure of a Party to insist on the performance of any obligation hereunder by the other Party will not be deemed to be a waiver of such obligation. Waiver of any breach of any provision hereof will not be deemed to be a waiver of any other breach of such provision, or of any breach of any other provision on such occasion or any other occasion. Subject to Section 2.8 (Limitations on Authority to Amend or Modify), no waiver, modification, release or amendment of any right or obligation under or provision of this Agreement will be valid or effective unless in writing and signed by both Parties.

17.16 **Other Activities**. The Parties acknowledge that each of them may now or in the future engage in research, manufacturing, development or commercialisation activities that utilize technologies similar to those contemplated by this Agreement, and nothing in this Agreement shall create any obligation on a Party not to research, manufacture, develop or commercialise products utilizing such similar technologies as long as such Party complies with the terms of this Agreement. Neither Party shall be prevented from using any publicly available research results or other information (including any publicly available information of the other Party) to the same extent as any Third Party is legally permitted to do so without a license from such other Party, as long as such results or information were not made publicly available as a result of a breach by the Party intending to use such results or information, or any of its Affiliates, but this sentence shall not be interpreted as granting a license under any Patent. Each

Party has limited resources, and it is anticipated that personnel assigned to activities hereunder may also participate in other activities that may utilize technologies similar to those contemplated by this Agreement as long as such Party complies with the terms of this Agreement.

17.17 **Compliance with applicable Laws**. Each Party agrees that in the course of performing its respective obligations and exercising its respective rights under this Agreement it shall comply with all applicable Laws.

17.18 **Choice of Law; Jurisdiction**. This Agreement shall be governed by and construed in accordance with the Laws of the State of New York, without reference to any rules of conflict of Laws that would result in the application of the Laws of another jurisdiction other than New York General Obligations Law Section 5-1401. Any rights to trial by jury with respect to any suit, action, proceeding or claim (whether based upon contract, tort or otherwise), directly or indirectly, arising out of or relating to this Agreement hereunder are expressly and irrevocably waived by each of the Parties.

17.19 **Conditions of Closing**. The obligations of each Party to consummate the transactions contemplated by this Agreement will be subject to the fulfillment of each of the following conditions: (a) the filings of Translate Bio and Sanofi pursuant to the HSR Act will have been made and the applicable waiting period and any extensions thereof will have expired or been terminated without action to prevent the Parties from implementing the transactions contemplated by this Agreement with respect to the United States; and (b) no Governmental Authority will have enacted any applicable Laws which has the effect of making the transactions contemplated by this Agreement illegal, otherwise restraining or prohibiting consummation of such transaction or causing the transaction contemplated hereunder to be rescinded following completion thereof.

17.20 **HSR Filing**. Within seven (7) business days after the Execution Date, both Parties shall file a copy of this Agreement and their respective premerger notification and report forms with the United States Department of Justice (the "**DOJ**") and the United States Federal Trade Commission (the "**FTC**") pursuant to the HSR Act.

17.21 **Cooperation**. The Parties shall use commercially reasonable efforts to promptly obtain clearance required under the HSR Act for the consummation of this Agreement and shall keep each other apprised of the status of any communications with, and any inquiries or requests for additional information from, the FTC and the DOJ and shall comply promptly with any such inquiry or request; *provided*, *however*, that neither Party shall be required to consent to the divestiture or other disposition of any of its assets or assets of its Affiliates or to consent to any other structural or conduct remedy, and each Party and its Affiliates shall have no obligation to contest, administratively or in court, any ruling, order or other action of the FTC or DOJ or any Third Party respecting the transactions contemplated by this Agreement. The Parties commit to instruct their respective counsel to facilitate and expedite the identification and resolution of any such issues and, consequently, the expiration of the applicable HSR Act waiting period. Each Party's counsel will undertake (i) to keep each other appropriately informed of communications from and to personnel of the reviewing antitrust authority, and (ii) to confer with each other regarding appropriate contacts with and response to personnel of the FTC or DOJ.

17.22 **Closing**. The consummation of the transactions set forth in this Agreement (the "**Closing**") shall take place at 10:00am Eastern Time at Boston, Massachusetts, US, on the third (3rd) business day after all conditions of closing set forth in Section 17.19 have either been met or waived (other than conditions which by their nature are to be satisfied on the Closing Date), or at such other time date and place as the Parties may mutually agree on in writing. The date on which the Closing is to occur is referred to herein as the "**Closing Date**".

[(*signature page follows*)]

IN WITNESS WHEREOF, the Parties have executed this Agreement.

Translate Bio MA, Inc.	**Sanofi**
By: /s/ Ronald C. Renaud, Jr.	By: /s/ John Shiver
Name: Ronald C. Renaud, Jr.	Name: John Shiver
Title: President & Chief Executive Officer	Title: Senior Vice President, Research & Development
Date: June 8, 2018	Date: June 8, 2018

Schedule 1.10

Collaboration Budget

[**]

Schedule 1.11

Collaboration Plan

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of ten pages were omitted. [**]

Schedule 1.51

Licensed Know-How*

(*subject to the process regarding identification and acceptance set forth in Section 1.51)

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of nine pages were omitted. [**]

Schedule 1.52

Licensed Material

[**]

Schedule 1.54

Licensed Patents

Docket Reference	Earliest PR	Appln No	Pub Date	Publ No.	Grant Date	Patent No.

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [**]

Schedule 1.80

Pre-Existing Agreements

MIT License

Shire Agreement

Schedule 1.89

Sanofi Background Technology

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [**]

Schedule 2.5

Responsibilities of the JSC

The JSC will be responsible for:

(i) final approval of the Collaboration Plan and Collaboration Budget, including annual amendments thereto;

(ii) strategic oversight of the Collaboration;

(iii) periodic review of the results of activities performed under the Collaboration Plans; and

(iv) establishment of any ad hoc subcommittee or working team as necessary to coordinate and conduct its activities hereunder; and

(v) approving Collaboration Plans for Optioned Fields (once exercised), but only if the Parties mutually agree to include such new Licensed Fields within the Collaboration.

Schedule 2.6

Responsibilities of the JPT

The JPT will be responsible for:

(i) preparing and updating the Collaboration Plan and Collaboration Budget;

(ii) operational oversight for the Collaboration, including pre-clinical testing, manufacture of investigational Product, preparation of Regulatory Filings, and such other activities as provided for in the Collaboration Plan;

(iii) executing the Collaboration Plan in accordance with the Collaboration Budget;

(iv) approval of protocols for all pre-clinical studies involving Product;

(v) facilitating the sharing of Collaboration Know-How and Collaboration Materials between the Parties regarding the Collaboration; and

(vi) preparing Collaboration Plans for Optioned Fields (once exercised) for JSC approval)), but only if the Parties mutually agree to include such new Licensed Fields within the Collaboration.

Schedule 3.9
Transfer of Materials

This Materials transfer is made in accordance with and subject to the Collaboration and License Agreement dated June 8, 2018 by and between Translate Bio MA. Inc. and Sanofi Pasteur Inc.

Procedure: The providing Party shall complete sections 1-4 below and upon receipt of the Materials in good condition, the receiving Party shall sign below to acknowledge receipt and provide a copy of this signed form to the providing Party's Alliance Manager or such other contact designated by such Party in writing.

1. provider:
2. recipient:
3. date shipped:
4. identity of materials (including quantity)

Shipped by: [name, title, date]

Received by: [name, title, date]

Schedule 4.2.2

Qualified Third Party Manufacturing Sites

[**]

Schedule 4.4

Terms of Supply & Quality Agreement

- Products supplied by Translate Bio to Sanofi for use in development shall be supplied at [**].
- Sanofi shall have the right to conduct audits of Translate Bio and its sub-contractors for compliance with cGMP, other applicable Laws, the terms of this Agreement and any other applicable agreement.
- Payment terms would be determined by the Parties and set forth in the Supply Agreement.
- The Supply Agreement will set forth which Party(ies) will bear the cost of any investigational Product which does not comply with cGMP (if intended for human or toxicological use) or otherwise fails to comply in all material respects with its specifications.
- The Supply Agreement shall include an indemnity of Translate Bio that ensures that Translate Bio is not responsible for any liability arising out of Sanofi's use of Products.
- [**]
- [**]

Schedule 4.7.1

Technology and Process Transfer Plan

The Technology and Process Transfer Plan, including the Success Criteria, would need to be developed by the Parties. Technology and Process Transfer shall include:

Completion of the transfer by Translate Bio to Sanofi of:

- Licensed Know-how and Licensed Materials to Sanofi to enable Sanofi to develop Products in the Licensed Fields; and
- manufacturing Licensed Know-How/Licensed Materials and processes to enable Sanofi to manufacture Products in the Licensed Fields; and
- Success Criteria

[this schedule intentionally left blank as of execution]

Schedule 4.7.4

Form of Technology and Process Transfer Memorandum

TO: Translate Bio MA, Inc., 29 Hartwell Ave, Lexington, MA 02421, USA.

TO: Sanofi Pasteur Inc., 1 Discovery Drive, Swiftwater, Pennsylvania, 18370 USA

RE: Collaboration and License Agreement dated June 8, 2018 completion of technology transfer

Translate Bio and Sanofi undertook a Technology and Process Transfer project in connection with the licenses granted to Sanofi under the Licensed Technology in accordance with an agreed Technology and Process Transfer Plan.

Each of Translate Bio and Sanofi acknowledge that in all of the activities set out in the agreed Technology and Process Transfer Plan have been completed and the Success Criteria have been met as of the date written below.

Acknowledged by the following representatives:

Sanofi Pasteur Inc.	**Translate Bio MA, Inc.**
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:
[DAY/MONTH/YEAR]	[DAY/MONTH/YEAR]

Schedule 7.6.1 - Royalty Stacking

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of two pages were omitted. [**]

Schedule 8.8

Payments owed by Translate Bio to Sanofi

A. Payment terms. All fees payable by Translate Bio hereunder shall be paid within [**] of the receipt of the invoice at the following mailing address: Translate Bio MA, Inc., 29 Hartwell Ave, Lexington, MA 02421, USA.

B. Royalty reports and payments. Within [**] of the close of each calendar quarter (i.e., each period of three months ending on 31 March, 30 June, 30 September or 31 December) during any Translate Bio shall furnish to Sanofi a written report, on a country-by-country and product by product basis stating gross sales of the products sold by Translate Bio, its Affiliates and/or Sublicensees under any license granted to Translate Bio hereunder during the corresponding calendar quarter and providing an accounting of net sales by country and product made during such calendar quarter, the amount of royalties payable. The royalties payable to Sanofi shall be delivered concurrently with the royalty report.

C. Withholding Taxes. Translate Bio shall make payments to Sanofi after deduction of any applicable withholding taxes. Prior to any first payment in each calendar year, Sanofi shall provide Translate Bio with any relevant form required by applicable tax authorities in order for Translate Bio to (i) attest to Sanofi's fiscal residence and (ii) obtain the application of the reduced withholding tax rate or the exemption of the withholding tax, according to the relevant bilateral agreement against double taxation. At the request of Sanofi, Translate Bio shall forward to Sanofi such relevant application forms for fulfillment. In the event Sanofi fails to return such forms duly filled in and signed before a payment date, Translate Bio shall declare and pay withholding tax at the local common law rate applicable to the payments, and Translate Bio shall deduct such tax from the corresponding payment to Sanofi. Translate Bio shall remit the withholding tax to the proper tax authority and proof of payment of such tax shall be secured and sent Sanofi upon request, as evidence of such payment within [**] from such payment.

D. Account Information. Sanofi will promptly provide Translate Bio any bank account information required Translate Bio to make any payments under this Agreement.

E. Late Payment Interest Rate. If any payment by Translate Bio to Sanofi is not made in a timely manner in accordance with this Agreement, such payments shall bear interest, compounded annually until payment, at a per annum rate of the lesser of (a) [**] for the date that the payment was due (or if unavailable on such date, the rate on the next first available date) as published by the Wall Street Journal Eastern Edition, or (b) if lower than (a) the maximum rate permitted by applicable Law.

Schedule 9.13

Specific obligations re MIT License

For so long as Sanofi is exercising any rights granted to it under this Agreement which are sublicensed by Translate Bio under the MIT License, the following provisions shall apply:

A. In the event that Sanofi or any Affiliate or Sublicensee brings a PATENT CHALLENGE (as defined in the MIT License) against M.I.T. or assists another party in bringing a PATENT CHALLENGE (as defined in the MIT License) against M.I.T. (except as required under a court order or subpoena) then Translate Bio may terminate the sublicense granted to Sanofi herein.

B. Sanofi's rights herein are subject to rights retained by M.I.T on its own behalf and all other non-profit research institutions to practice under the PATENT RIGHTS (as defined in the MIT License) for research, teaching, and educational purposes.

C. Sanofi, its Affiliates and Sublicensees shall indemnify, defend, and hold harmless M.I.T. and its trustees, officers, faculty, students, employees, and agents and their respective successors, heirs and assigns (the "**MIT Indemnitees**"), against any liability, damage, loss, or expense (including reasonable attorneys' fees and expenses) (collectively "MIT Losses") incurred by or imposed upon any of the MIT Indemnitees in connection with any claims, suits, investigations, actions, demands or judgments arising out of or related to the exercise of any rights sublicensed to Sanofi, its Affiliates and Sublicensees under this Agreement with respect to the rights under the MIT License or any breach of the obligations under the MIT License imposed on Sanofi, its Affiliates and Sublicensees by this Agreement; *provided*, *however*, that Sanofi shall have no obligation pursuant to the foregoing with respect to any MIT Losses to the extent that they result from the gross negligence or willful misconduct of any MIT Indemnitee, or breach of the MIT License by M.I.T.

D. Sanofi, its Affiliates and Sublicensees shall comply with all Laws controlling the export of certain commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce with respect to Products (collectively, the "**Export Control Obligations**"). Among other things, these Laws (and the Export Control Obligations) prohibit or require a license for the export of certain types of commodities and technical data to specified countries. Sanofi bears sole responsibility for any violation of the Export Control Obligations by itself or any Affiliate or Sublicensee. Sanofi, its Affiliates and Sublicensees will indemnify, defend, and hold M.I.T. harmless for the consequences of any violation of any Export Control Obligations by itself, its Affiliates or any Sublicensee. If Sanofi or any Affiliate or Sublicensee fails to cure a breach of the Export Control Obligations within [**] after receiving written notice thereof from Translate Bio, then Translate Bio may immediately terminate the rights sublicensed to Sanofi herein which are sublicensed under the MIT License.

E. None of Sanofi, its Affiliates or Sublicensees may use the name of "Massachusetts Institute of Technology," "Lincoln Laboratory" or any variation, adaptation, or abbreviation thereof, or of any of its trustees, officers, faculty, students, employees, or agents, or any trademark owned by M.I.T., or any terms of the MIT License in any promotional material or other public announcement or disclosure without the prior written consent of M.I.T., which consent M.I.T. may withhold in its sole discretion.

F. Subject to Section E of this Schedule 9.13, Translate Bio shall have the right to terminate the sublicense granted to Sanofi with respect to the rights arising under the MIT License in the event that Sanofi or its Affiliate or Sublicensee breaches a term of this Agreement which is derived from or required by the sublicense of the MIT License if such breach is not cured within [**] after receiving written notice thereof from Translate Bio.

G. To the extent commercially feasible and consistent with prevailing business practices, and permitted under applicable Laws, Sanofi shall mark, and shall cause its Affiliates and Sublicensees to mark, all Products that are manufactured or sold under this Agreement which are made under a sublicense of rights under the MIT License with the number of Patent that applies to such Product.

H. Termination of the MIT License shall not release Sanofi, any of its Affiliates or any Sublicensee from the obligation to pay any undisputed amounts that became due on or before the effective date of termination of the MIT License.

I. Sanofi's, its Affiliates' and its Sublicensees' indemnification obligations and compliance with Export Control Obligations in this Schedule 9.13 shall survive termination of the MIT License or the rights granted to Sanofi or such Affiliate or Sublicensee derived MIT License.

Schedule 13.10

Press Release

[DRAFT – NOT FOR IMMEDIATE RELEASE]

Translate Bio Announces Agreement with Sanofi Pasteur to Develop Vaccines for Infectious Diseases using Novel mRNA Technology

— Three-year collaboration focused on developing vaccines for up to five infectious disease pathogens will bring together Sanofi Pasteur's leadership in vaccines with Translate Bio's expertise in mRNA research and development—

LEXINGTON, Mass.– June 8, 2018 –Translate Bio, a leading messenger RNA (mRNA) therapeutics company developing a new class of potentially transformative medicines to treat diseases caused by protein or gene dysfunction, announced today a multi-year research and development collaboration and exclusive licensing agreement with Sanofi Pasteur, the vaccines global business unit of Sanofi (NYSE: SNY), to develop mRNA vaccines for up to five undisclosed infectious disease pathogens.

Under the agreement, Translate Bio and Sanofi Pasteur will jointly conduct research and development activities to advance mRNA vaccines during an initial three-year research term. Sanofi Pasteur will make an upfront payment of $45 million. In total, Translate Bio is eligible to receive up to a total of $805 million in payments, which also includes certain development, regulatory and sales-related milestones across a number of vaccine targets, as well as tiered royalty payments associated with worldwide sales of the developed vaccines. Sanofi Pasteur will pay for all costs during the research term and will receive exclusive worldwide commercialization rights. Translate Bio will be responsible for clinical manufacture during the collaboration and will be entitled to additional payments under a separate supply agreement.

"Sanofi Pasteur is pursuing a variety of emerging technologies that will allow us to continue to lead in research and development of next-generation vaccines," said John Shiver, Senior Vice President, R&D, Sanofi Pasteur. "We believe mRNA technology has significant potential for rapid and versatile manufacturing, reduced industrialization costs for multiple vaccines, and the improved breadth of immune response for infectious disease vaccines. The [Translate Bio] platform will allow us to further address medical needs worldwide, including those not readily accessible using conventional vaccine strategies."

"Sanofi Pasteur is at the forefront of vaccine research and development which makes them an ideal partner as we expand upon our promising early efforts in vaccines," said Ronald Renaud, chief executive officer, Translate Bio. "We believe that this partnership validates the potential of our mRNA platform, and also enables us to apply our mRNA technology beyond the current therapeutic applications that we are pursuing in cystic fibrosis and ornithine transcarbamylase (OTC) deficiency, ultimately advancing our goal of delivering innovative medicines to patients."

The transaction is subject to customary closing conditions, including the expiration of the applicable waiting period under the Hart Scott Rodino Antitrust Improvements Act of 1976 in the United States.

About mRNA Vaccines

Vaccines work by mimicking disease agents to stimulate the immune system; building up a defense mechanism that can be deployed to fight future infections. mRNA vaccines offer an innovative approach by delivering the nucleotide sequence encoding any protein associated with prevention or treatment of a pathogen. Because of their high potency, capacity for rapid development and potential for low-cost manufacture and safe administration, mRNA vaccines represent a potentially innovative alternative to conventional vaccine approaches. A desired protein can be expressed from mRNA without the need to adjust the production process offering maximum flexibility in development, potentially enabling the development of vaccines for disease areas where vaccination is not a viable option today.

About Translate Bio

Translate Bio is a leading mRNA therapeutics company developing a new class of potentially transformative medicines to treat diseases caused by protein or gene dysfunction. The Company's MRT platform is designed to develop product candidates that deliver mRNA carrying instructions to produce intracellular, transmembrane and secreted proteins for therapeutic benefit. The Company believes that its MRT platform is applicable to a broad range of diseases caused by insufficient protein production or where production of proteins can modify disease, including diseases that affect the lung, liver, eye, central nervous system, lymphatic system and circulatory system. The Company also believes its platform may be applied to produce therapeutic antibodies and vaccines in areas such as infectious disease and oncology. The Company's two lead programs are being developed as treatments for CF and ornithine transcarbamylase (OTC) deficiency. For more information about the Company, please visit www.translate.bio or on Twitter at @TranslateBio.

Forward-Looking Statements

This press release contains forward-looking statements. Such forward-looking statements include those regarding the expected benefits of the research and development collaboration and exclusive licensing agreement. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "would," "could," "potential," "possible," "hope," "strategy," "milestone," "will," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from Management's current expectations and beliefs. Management's expectations and, therefore, any forward-looking statements in this press release could also be affected by risks and uncertainties relating to a number of other important factors, including: Translate Bio's results of preclinical studies and clinical trials; the

content and timing of decisions made by the U.S. Food and Drug Administration and other regulatory authorities; Translate Bio's ability to obtain and maintain requisite regulatory approvals and to enroll patients in its planned and ongoing clinical trials; and Translate Bio's ability to obtain, maintain and enforce patent and other intellectual property protection for any product candidates it is developing. Any forward-looking statements contained in this press release speak only as of the date hereof, and Translate Bio expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

###

Contacts for Translate Bio

Teri Dahlman
tdahlman@translate.bio
857-242-7792

Maura Gavaghan
mgavaghan@translate.bio
857-242-7789

Schedule 17.4

Binding Arbitration Procedure

1. The Parties agree that disputes (other than those referred to in Section 17.4 (Dispute Resolution) shall be resolved solely and exclusively by final and binding arbitration ("**Arbitration**") to be conducted before the International Chamber of Commerce ("**ICC**") or its successor, and shall be conducted under the ICC Rules of Arbitration, as amended from time to time, except as provided in this Schedule 17.4. Arbitration shall be initiated by a Party by sending the other Party a written notice of Arbitration to the legal contacts identified on Schedule 17.11 (Notice).

2. The Arbitration tribunal shall consist of three (3) arbitrators, which shall be selected as follows: (i) one (1) arbitrator shall be selected by Sanofi; (ii) one (1) arbitrator shall be selected by Translate Bio; and (iii) one (1) arbitrator (who shall be the chair of the panel) who shall be selected by the two (2) foregoing arbitrators (each, such arbitrator, an "**Arbitrator**").

The two Party's selected Arbitrators shall each be an individual with significant business experience in the pharmaceutical industry or a lawyer with significant legal experience in issues relating to the pharmaceutical industry. The chair of the Arbitration panel shall be a lawyer with significant legal experience in issues relating to the pharmaceutical industry and also experience in international commercial arbitration. No Arbitrators shall be current or former employees, officers or directors of, or consultants or advisors to, or have a material relationship with, either Party or its Affiliates.

In the event that either Party fails to select an acceptable Arbitrator within [**] of the delivery of the Arbitration notice or the two (2) Arbitrators selected by the Parties fail to select the third Arbitrator within [**] after the selection of the first two (2) Arbitrators, then, at the request of either Party, the President of the ICC shall make such selection(s) on behalf of the Parties in accordance with instructions set out in this Schedule 17.4.

3. The venue of the Arbitration shall be a place in New York, New York mutually agreed by the Parties. The Arbitration shall be conducted in the English language, and all non-English language documents shall be submitted in the original language and shall be accompanied by a translation into English.

4. It is the objective of the Parties to establish procedures to facilitate the resolution of disputes arising under this Agreement in an expedient manner. In furtherance of the foregoing, the Arbitrators shall order the prompt exchange of relevant documents by each Party. Each Party shall have the right to take up to [**] depositions, and the Arbitrators may allow an additional deposition upon good cause shown by the moving Party that [**] depositions and such documents, collectively, are insufficient and the lack of an additional deposition would prejudice the fairness of the arbitration. The Arbitrators shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any Arbitration, each Party shall provide to the other, no later than [**] before the date of the Arbitration, the identity of all persons that may testify at the Arbitration and a copy of all documents that may be introduced at the Arbitration or considered or used by a Party's witness or expert.

5. The Parties covenant and agree that they will participate in the Arbitration in good faith and that they will share equally in the required advanced costs of the Arbitration, except as otherwise provided herein or as ordered by the Arbitrators. Prior to any arbitration hearing, the Parties shall equally share the costs of the Arbitration process such that each Arbitrator shall bill each Party for one half of his/her fees.

6. The chair of the arbitral panel shall have the authority to award the costs as part of his/her order, and shall award full costs to a Party who prevails on all issues at dispute, and partial costs if both Parties prevail in respect of one or more issues at dispute, and no costs to either Party if arbitral panel finds that the Parties have prevailed equally on the issues at dispute; in this latter case, the Parties shall bear their own internal costs (including costs of external counsel, witnesses and experts) and also half of the costs associated with the hearing itself (including the fees of the Arbitrators and any venue where the arbitration is held). Any costs awarded to a Party shall be paid to such Party within [**] of the date of receipt of the order for costs. The Party to whom costs are owed shall fully cooperate with the paying Party in respect of payment of such award.

7. The decision by the Arbitrators shall be final and binding on the Parties, non-reviewable and non-appealable and judgment upon any arbitral award may be entered and enforced by any court or other judicial authority of competent jurisdiction.

8. Except as provided required by applicable Law, the existence of any Arbitration and any briefs outlining a Party's claim and any draft or executed settlement agreements exchanged for such proceedings and the rulings or awards of the Arbitrators shall be deemed to be Confidential Information of both Parties under Article 13 (Confidentiality, Publications and Press Releases), and the Arbitrators shall have the authority to impose sanctions for unauthorized disclosure of such Confidential Information, but each Party may disclose such Confidential Information in accordance with Article 13 or to enforce the arbitral award. For clarity, Confidential Information of a Party shared in discovery shall not be deemed, by virtue of this Section 8, to be the other Party's Confidential Information.

9. The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) shall be tolled while the dispute resolution procedures set forth in this Schedule 17.4 are pending, and the Parties shall cooperate in taking all actions reasonably necessary to achieve such a result.

Schedule 17.11

Notices

Where a provision of this Agreement requires notice be delivered by one Party to the other Party, it shall be delivered to the following address and point of contact, which address and point of contact a Party may change at any time on written notice to the other Party:

To Translate Bio	To Sanofi
Translate Bio MA, Inc. 29 Hartwell Ave., Lexington, MA 02421, USA Attention: Legal Affairs	Sanofi Pasteur Inc. Discovery Drive, Swiftwater, PA 18370 USA Attention: Legal Affairs

Technical and business correspondence between the Parties (other than notices) shall be directed as follows:

To Translate Bio	To Sanofi
Attention: Chief Business Officer	Attention: Co-Chair of JSC

Payment, invoice and tax inquiries between the Parties (other than notices) shall be directed as follows:

To Translate Bio	To Sanofi
Attention: Chief Finance Officer	Attention: Accounts Payable

Matters regarding the Patents, Know-How and Materials, including any prosecution, enforcement, and related activities between the Parties (other than notices) shall be directed as follows:

To Translate Bio	To Sanofi
Attention: Head of IP	Attention: [**]

Matters regarding changes to Alliance Manager or committee members (which, notwithstanding anything to the contrary in Section 17.11, may be delivered by email:

To Translate Bio	To Sanofi
Attention: Chief Business Officer	Attention: Alliance Management

EX-10.1 2 d907899dex101.htm EX-10.1

EXHIBIT 10.1

Certain identified information has been marked in the exhibit because it is both (i) not material and (ii) would likely cause competitive harm to the Company, if publicly disclosed. Double asterisks denote omissions.

FIRST AMENDMENT to the COLLABORATION AND LICENSE AGREEMENT

This First Amendment (the "First Amendment") to the Collaboration and License Agreement with an Execution Date of June 8th, 2018 (the "Agreement") is made by and between Translate Bio MA, Inc., with offices at 29 Hartwell Ave, Lexington, MA 02421, USA., a corporation registered under the laws of the State of Delaware ("Translate Bio" or "TB") and Sanofi Pasteur Inc., a company incorporated under the laws of the state of Delaware, with offices at Discovery Drive, Swiftwater, PA 18370 USA ("Sanofi"). Capitalized terms used and not defined herein shall have the respective meanings ascribed to them in the Agreement.

WHEREAS:

1. On March 11, 2020, the World Health Organization declared a global pandemic of SARS-CoV-2 a novel virus which causes COVID19 disease (the "SARS-CoV-2 Pandemic").

2. In view of the SARS-CoV-2 Pandemic, Translate Bio as a leading mRNA therapeutics company and Sanofi as the world's leading supplier of vaccines against influenza have been discussing expanding their existing collaboration under the Agreement in order to discover, research and conduct testing for mRNA-based vaccines against SARS-CoV-2 with an aim of helping to address the SARS-CoV-2 Pandemic. With this aim in mind, each of Translate Bio and Sanofi is willing to enter into this First Amendment relating to the field of vaccines against SARS-CoV-2 as set forth below.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and intending to be legally bound, the Parties agree as follows:

1. Article 1 Definitions, is hereby amended as follows:

(a) Section 1.11 (Collaboration Budget) is hereby deleted and replaced in its entirety as follows:

***"Collaboration Budget**" means the budget prepared jointly by the Parties to reflect the costs of the Translate Bio Collaboration Activities set forth in the Collaboration Plan, which shall consist of (a) FTE Costs to be reimbursed by Sanofi in accordance with Section 7.1 (Collaboration Funding), (b) Out-Of-Pocket Costs, and (c) Manufacturing Costs incurred by Translate Bio for the Translate Bio Collaboration Activities, which shall be funded by Sanofi in accordance with Section 7.1 (Collaboration Funding). An initial Collaboration Budget is attached hereto as Schedule 1.11 (Collaboration Budget). The Parties shall update the Collaboration Budget annually in accordance with Section 3.1.2. Notwithstanding the foregoing, the Parties agree that the Collaboration Budget for the Licensed Field of SARS-CoV-2 shall reflect the costs of the Translate Bio Collaboration Activities directed to SARS-CoV-2 set forth in the Collaboration Plan and the Sanofi Collaboration Activities directed to SARS-CoV-2 set forth in the Collaboration Plan, including each Party's FTE Costs and Out-Of-Pocket Costs.*

(b) Section 1.12 (Collaboration Plan) is hereby deleted and replaced in its entirety as follows:

"***Collaboration Plan****" means (a) with respect to Products in each Licensed Field, the plans for the execution of certain research, development, regulatory and manufacturing activities which the Parties have allocated between them with respect to such Products in such Licensed Field during the Collaboration Term as described in Parts 2 through 4 of Schedule 1.12, and also (b) with respect to activities directed to [**] for vaccines which activities are directed to Products in the Licensed Fields but not specific to Products in any particular Licensed Field and such other activities as described in Part 1 of Schedule 1.12 ("Vaccine Platform Development"), which plan provides for the execution of such activities which the Parties have allocated between them during the Collaboration Term. An initial Collaboration Plan for each Licensed Field and for the Vaccine Platform Development is attached hereto as Schedule 1.12 (Collaboration Plan). The Parties shall update the Collaboration Plans annually in accordance with Section 3.1.2.2. Notwithstanding the foregoing, the Parties agree that the Collaboration Plan for the Licensed Field of SARS-CoV-2 shall be limited to discovery and pre-clinical research and any responsibilities to conduct activities directed to clinical development or commercialization of a Product directed to SARS-CoV-2 shall be by mutual agreement of the Parties in a separate amendment to the Agreement.*

(c) *Section 1.19 (***Commercially Reasonable Efforts)** is hereby deleted and replaced in its entirety as follows:

*"**Commercially Reasonable Efforts****" means (a) with respect to Sanofi, on a market-by- market basis for a given Product, that measure of efforts, consistent with [**]; and (b) with respect to Translate Bio, that measure of efforts and resources, consistent with [**]. Notwithstanding the foregoing in this Section 1.19, the term Commercially Reasonable Efforts, shall with respect to Sanofi mean with respect to a Product directed to SARS-CoV-2, that measure of efforts, consistent with [**].*

(d) Section 1.49 (Licensed Field) is hereby deleted and replaced in its entirety as follows:

*"**Licensed Field****" means [**] Influenza virus [**] SARS-CoV-2, [**] Influenza virus, [**]*

SARS-CoV-2 [**].

(e) A new Section 1.115 (SARS-CoV-2) is hereby added to the Agreement.

*"**SARS-CoV-2**" has the meaning set forth in the Preamble of the First Amendment."*

(f) A new Section 1.116 (SARS-CoV-2 Pandemic) is hereby added to the Agreement.

*"**SARS-CoV-2 Pandemic**" has the meaning set forth in the Preamble of the First Amendment."*

(g) A new Section 1.117 (COVID19) is hereby added to the Agreement.

*"**COVID19**" means the disease in humans caused by SARS-CoV-2."*

(h) A new Section 1.118 (Pandemic) is hereby added to the Agreement.

*"**Pandemic**" means an outbreak of a disease that occurs over a wide geographic area and affects a large proportion of people in such area."*

(i) A new Section 1.119 (Pandemic Product) is hereby added to the Agreement.

*"**Pandemic Product**" means a Product (i) which is indicated for the prevention of COVID19 for which a Pandemic has been declared by a Governmental Authority and (ii) for which the purchaser of such Product is a Governmental Authority that is purchasing the Product for the Pandemic, including but not limited to for stockpiling, emergency use, humanitarian donations and other circumstances, other than for sales in the ordinary course of business. A Product shall be deemed a Pandemic Product for so long as these two criteria are met."*

2. Section 2.3 (Governance) is hereby amended by adding a new Section 2.3.4 as follows:

"The Parties agree that the execution of the SARS-CoV-2 Collaboration Plan shall be carried out by their personnel having appropriate expertise and knowledge, however a JPT will not need to be formed for such activities. The Parties intend that the performance of their respective Collaboration activities directed to SARS-CoV-2 will not interfere or distract from the performance of the Collaboration activities directed to the other Licensed Fields or Technology and Process Transfer activities."

3. Section 3.2 (Collaboration Costs) is hereby deleted and replaced in its entirety as follows:

*"**Collaboration Costs**. The estimated costs for Translate Bio's Collaboration Activities will be as set forth in the applicable Collaboration Budget; provided, however, that Sanofi shall be responsible for paying FTE Costs, Out-of-Pocket Costs and Manufacturing Costs up to [**] percent ([**]%) of such costs set forth in the applicable Collaboration Budget with respect to the Translate Bio Collaboration Activities. Any variation in excess of [**] percent ([**]%) of the Collaboration Budget will require Sanofi's express prior written consent. With respect to Collaboration Activities directed to SARS-CoV-2, each Party shall bear its own FTE Costs and [**].*

4. Section 7.1 (Collaboration Funding) is hereby deleted and replaced in its entirety as follows:

"Collaboration Funding. In consideration of the performance by Translate Bio of the Translate Bio Collaboration Activities in the Collaboration, Sanofi shall pay Translate Bio the agreed sum set out in the Collaboration Budget for each of (a) FTE Costs, (b) Out-Of-

Pocket Costs, and (c) Manufacturing Costs. Each of FTE Costs, Out-Of-Pocket Costs or Manufacturing Costs is a "Cost Category") which shall be accounted for separately by Translate Bio and in no event shall Translate Bio include costs or expenses from one such Cost Category in another such Cost Category. In the event that the Collaboration Budget or Supply Agreement includes certain Out-of-Pocket Costs or Manufacturing Costs which Translate Bio is [**], Sanofi shall [**] the full amount of those Out-of-Pocket Costs and Manufacturing Costs to Translate Bio. Notwithstanding the foregoing, the Parties agree that each of them shall bear their own FTE Costs and [**] incurred in the performance of their respective Collaboration activities directed to SARS-CoV-2 as set out in the Collaboration Budget.

5. The Parties agree that no upfront fee is payable by Sanofi to Translate Bio with respect to the license granted in the Licensed Field of SARS-CoV-2.

6. The Parties agree that Section 7.4 (Milestones) shall not apply to any Pandemic Product.

7. The Parties agree that Section 7.5 (Royalties and Royalty Reductions), Section 7.6 (Royalty Stacking) and Section 7.7 (Fully-Paid-Up License) shall not apply to any Pandemic Products and the Parties will negotiate in good faith royalty terms to apply to Pandemic Products, which shall reflect the economic conditions applicable to commercializing such Pandemic Product, and in no event will the royalty terms applicable to any Pandemic Product be higher than those set out in Section 7.5 (Royalties and Royalty Reductions), Section 7.6 (Royalty Stacking) and Section 7.7 (Fully-Paid-Up License for Products which are not Pandemic Products.

8. Section 13.10 (Press Releases) is hereby amended by adding a new Section 13.10.1 as follows:

"Translate Bio and/or Sanofi may announce the inclusion of SARS-CoV-2 as a Licensed Field in the Agreement in a press release in the form attached hereto as Schedule 13.10.1 (SARS-CoV-2 Press Releases). In addition, Translate Bio and/or Sanofi may issue additional press releases concerning their Collaboration activities directed to SARS-CoV-2, provided that a draft of any such press release shall be delivered to the other Party at least [**] in advance, and the receiving Party shall not unreasonably withhold its consent to the issuance of such press release. Notwithstanding the foregoing, any Party may issue a press release regarding their respective Collaboration activities directed to SARS- CoV-2 if such disclosure is required by applicable Law or the rules of the US Securities and Exchange Commission (SEC) or any securities exchange, as reasonably advised by the disclosing Party's counsel."

9. Section 13.11 Publications is hereby amended by adding a new Section 13.11.4 as follows:

"Notwithstanding Section 13.11,1 and 13.11.2, the Parties recognize the importance of contributing to the field of SARS-CoV-2 research rapidly and therefore the Parties have agreed to use the following expedited review process with respect to any proposed Publication of results arising from their SARS-CoV-2 Collaboration Activities. A Party wishing to submit a Publication shall provide the other Party with a draft of such Publication at least [**] in advance of the planned date of submission to enable the other Party to consider its impact on its business. A Party that receives a draft Publication from the other Party under this Section 13.11.4 shall not unreasonably withhold its consent to the submission of the Publication."

10. Schedule 1.11 (Collaboration Budget) is hereby amended by adding to such budget the separate Collaboration Budget for SARS-Cov-2 attached hereto as Schedule 1.11(A).

11. Schedule 1.12 (Collaboration Plan) is hereby amended by adding to such plan the separate Collaboration Plan for SARS-Cov-2 attached hereto as Schedule 1.12(A).

12. Section 16.6 (Termination for Material Breach) is hereby amended by adding a new Section 16.6.3 as follows:

"Notwithstanding Sections 16.6.1 or 16.6.2, if (i) despite good faith negotiations, the Parties are unable to mutually agree in a separate amendment to their respective commitments and responsibilities to conduct activities directed to clinical development and commercialization of a Product directed to SARS-CoV-2, or (ii) Sanofi is in breach of its material obligations with regard to Collaboration activities solely directed to SARS-CoV-2, Translate Bio shall have the right to terminate and revoke the license granted herein solely with respect to the Licensed Field of SARS-CoV-2 on sixty (60) days written notice to Sanofi. Upon such termination and revocation by Translate Bio, (i) the Licensed Field of SARS-CoV-2 shall cease to be a Licensed Field and shall be a Translate Bio Field and (ii) the Parties shall negotiate in good faith a termination agreement with respect to Translate Bio's use of any Sanofi Collaboration Technology or jointly-owned Collaboration Technology, that is necessary or useful to the further development or commercialization of a Product directed to SARS-Co-V-2.

13. Section 16.6 (Termination for Material Breach) is hereby amended by adding a new Section 16.6.4 as follows:

"Notwithstanding Section 16.6.1 or 16.6.2 or 16.6.3, Translate Bio shall not have the right to terminate Sanofi's rights granted herein with respect to any Licensed Field other than SARS-Cov-2 in the event of a material breach by Sanofi of its material obligations with regard to SARS-Cov-2."

14. This First Amendment amends the Agreement solely to the extent expressly provided below as of the First Amendment Effective Date. In all other respects, the Agreement continues in full force and effect and is ratified in all respects. Any references in the Agreement to the "Agreement" will be deemed to mean the Agreement as amended by this First Amendment. The provisions of the Agreement apply to this First Amendment except to the extent this First Amendment amends any such provisions. If there is a conflict between the provisions of this First Amendment and the Agreement, the provisions of this First Amendment control.

15. This First Amendment shall become effective as of March 24, 2020 (the "First Amendment Effective Date").

16. Section 17.4 (Dispute Resolution) is hereby deleted and replaced in its entirety as follows:

"The Parties shall negotiate in good faith and use reasonable efforts to settle any dispute, controversy or claim arising from or related to this Agreement or the breach hereof. If the Parties do not fully settle each such dispute, controversy or claim, and a Party wishes to pursue the matter, then:

(a) In respect of any dispute concerning the validity of a Party's intellectual property rights, each Party may assert any remedy available at law or equity to enforce its rights under this Agreement before a court of competent jurisdiction;

(b) In respect of any dispute regarding inventorship or ownership of Collaboration Technology, in accordance with the process set forth in Section 10.1; and

(c) In respect of any dispute concerning whether a Product is or is not a Pandemic Product, the Parties shall refer the dispute to an expert having experience in vaccine commercialization in public and private markets; and

(d) In respect of all matters other than any dispute concerning (i) the validity of a Party's

intellectual property rights or the inventorship or ownership of Collaboration Technology, or (ii) whether a Product is or is not a Pandemic Product, including for example disputes regarding the existence, interpretation, validity or termination of this Agreement, the Parties agree to submit to binding arbitration in accordance with Schedule 17.4 (Binding Arbitration Procedure)."

17. This First Amendment may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts will be deemed an original, will be construed together and will constitute one and the same instrument. This First Amendment may be executed using Adobe Sign or other validated e-signature platform or other electronic means (such as in portable document format (PDF)) without affecting the validity thereof.

IN WITNESS WHEREOF, the Parties have executed this First Amendment to the Collaboration and License Agreement effective as of the First Amendment Effective Date.

Translate Bio MA, Inc.

By: /s/ Ronald C. Renaud, Jr.
Name: Ronald Renaud
Title: President and CEO

Sanofi Pasteur Inc.

By: /s/ John Shiver
Name: John Shiver
Title: Senior Vice President, R&D

Schedule 1.11(A) (Collaboration Budget—SARS-Cov-2)

USD	TB	Sanofi
[**]	[**]	
[**]		[**]
[**]		[**]
[**]		[**]
Total		$[**]

[**]

EX-10.1 2 d930380dex101.htm EX-10.1

Exhibit 10.1

Certain identified information has been marked in the exhibit because it is both (i) not material and
(ii) would likely cause competitive harm to the Company, if publicly disclosed.
Double asterisks denote omission.

SECOND AMENDMENT to the
COLLABORATION AND LICENSE AGREEMENT

This Second Amendment (the "**Second Amendment**") to the Collaboration and License Agreement with an Execution Date of June 8th, 2018, (the "**Agreement**") as amended by the First Amendment dated March 24, 2020 (the "**First Amendment**") is made by and between Translate Bio MA, Inc., with offices at 29 Hartwell Ave, Lexington, MA 02421, USA, a corporation registered under the laws of the State of Delaware ("**Translate Bio**" or "**TB**") and Sanofi Pasteur Inc., a company incorporated under the laws of the state of Delaware, with offices at Discovery Drive, Swiftwater, PA 18370 USA ("**Sanofi**"). Capitalized terms used and not defined herein shall have the respective meanings ascribed to them in the Agreement or the First Amendment, as applicable.

WHEREAS: Sanofi and TB wish to expand the scope of their Collaboration and the scope of the licenses granted by TB to Sanofi subject to the terms of this Second Amendment.

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and intending to be legally bound, the Parties agree as follows:

1. ARTICLE 1 DEFINITIONS of the Agreement, as amended by the First Amendment, is hereby amended as follows:

(a) Section 1.11 (Collaboration Budget) is hereby deleted and replaced in its entirety as follows:

*""**Collaboration Budget**" means the budget prepared jointly by the Parties to reflect the costs of the Translate Bio Collaboration Activities set forth in the Collaboration Plan, which shall consist of (a) FTE Costs to be reimbursed by Sanofi in accordance with Section 7.1 (Collaboration Funding), (b) Out-Of-Pocket Costs, and (c) Manufacturing Costs of Translate Bio for the Translate Bio Collaboration Activities, which shall be funded by Sanofi in accordance with Section 7.1 (Collaboration Funding). Collaboration Budgets for each Licensed Field in which the Parties shall conduct the Collaboration, and for the Vaccine Platform Development, are attached hereto as Schedule 1.11 (Collaboration Budget)."*

(b) Section 1.12 (Collaboration Plan) is hereby deleted and replaced in its entirety as follows:

*""**Collaboration Plan**" means (a) with respect to Products in each Licensed Field, the plans for the execution of certain research, development, regulatory and manufacturing activities which the Parties have allocated between them with respect to such Products in such Licensed Field during the Collaboration Term as described in Parts 2 through 8 of Schedule 1.12, and also (b) with respect to activities directed to [**] for vaccines which activities are directed to Products in the Licensed Fields but not specific to Products in any particular Licensed Field and such other activities as described in Part 1 of Schedule 1.12 ("Vaccine Platform Development"), which plan provides for the execution of such activities which the Parties have allocated between them during the Collaboration Term. Collaboration Plans for each of the following Licensed Fields: Influenza, [**], SARS-CoV-2, [**] Licensed Fields and for the Vaccine Platform Development are attached hereto as Schedule 1.12 (Collaboration Plan). The Parties acknowledge that such Collaboration Plans may require minor adjustments based on agreement to the Collaboration Budgets for such Collaboration Plans. The Parties shall update the Collaboration Plans annually in accordance with Section 3.1.2."*

(c) Section 1.31 (FTE Rate) is hereby deleted and replaced in its entirety as follows:

*""**FTE Rate**" means (a) for Collaboration Plans in respect of the Influenza, [**] Licensed Fields and the Vaccine Platform Development, for the period beginning on the Execution Date and ending December 31, 2020, a rate of [**] U.S. dollars ($[**]) per FTE, (b) for Collaboration Plans in respect of the Influenza, [**] Licensed Fields and the Vaccine Platform Development, for the period beginning on January 1, 2021 and ending when the Collaboration Term (or any extension thereof) is terminated or expires, a rate of [**] U.S. dollars ($[**]) per FTE, (c) for Collaboration Plans in respect of the [**] Licensed Fields, for the period beginning on the Second Closing and ending when the Collaboration Term (or any extension thereof) is terminated or expires, a rate of [**] U.S. dollars ($[**]) per FTE; (d) for the Collaboration Plan in respect of the SARS-CoV-2 Licensed Field, for the period beginning on the First Amendment Effective Date and ending December 31, 2020, a rate of [**] U.S. dollars ($[**]) per FTE, (e) for the Collaboration Plan in respect of the SARS-CoV-2 Licensed Field, for the period beginning on January 1, 2021 and ending when the Collaboration Term (or any extension thereof) is terminated or expires, a rate of [**] U.S. dollars ($[**]) per FTE, and (f) for any Collaboration Plan for any Licensed Field not listed in item (a) through (e) which Collaboration Activities do not commence unless and until, Sanofi (in its sole discretion) extends the Collaboration Term pursuant to Section 2.2.2, for the period beginning on July 1, 2022 and ending on June 30, 2023, a rate of [**] U.S. dollars ($[**]) per FTE, which rate specified in (a), (b) (c), (d) and (e) above is, in each case, inclusive of salaries, bonus, benefits and overhead; provided however that beginning on January 1, 2022, the above FTE rates in (b), (c), (e) and (f) above shall increase by the percentage increase in the Producer Price Index (PPI) for Pharmaceutical and Medicine Manufacturing (NAICS 325400) for the twelve (12) month period preceding each such January 1."*

(d) Section 1.49 (Licensed Field) is hereby deleted and replaced in its entirety as follows:

*""**Licensed Field**" means [**]."*

(e) Section 1.62 (MIT License) is hereby deleted and replaced in its entirety as follows:

*""**MIT License**" shall mean the APPL License and the OF-02 License."*

(f) Sections 1.66 (Option), 1.67 (Option Exercise Fee), 1.68 (Optioned Field), 1.69 Option Notice and Section 1.70 (Option Term) are hereby deleted and each such Section shall be replaced with the word [Reserved].

(g) Section 1.71 (Out-Of-Pocket Costs) is hereby deleted and replaced in its entirety as follows:

*""**Out-Of-Pocket Costs**" shall mean those costs and expenses, including applicable taxes, paid to Third Parties, such as Service Providers, but excluding Manufacturing Costs; provided however that beginning as of January 1, 2021, Translate Bio may charge a mark-up of [**] percent ([**]%) to such costs."*

(h) Section 1.80 (Pre-Existing Agreements) shall be deleted in its entirety and replaced as follows:

*""**Pre-Existing Agreements**" mean the agreements executed by Translate Bio which are listed in Schedule 1.80 (Pre-Existing Agreements)."*

(i) Section 1.99 (Success Criteria) shall be deleted in its entirety and replaced as follows:

" "Success Criteria" means the technical criteria, mutually agreed to by the Parties and described in the Technology and Process Transfer Plan or the SARS-CoV-2 Technology and Process Transfer Plan, as applicable."

(j) Section 1.108 (Third Party Obligations) shall be deleted in its entirety and replaced as follows:

*""**Third Party Obligations**" means the royalty payments (including any earn out payments payable under the Shire Agreement) which Translate Bio or any of its Affiliates owes to any Third Party with respect to a Product in a Licensed Field, in any calendar quarter, arising from an obligation under any Pre-Existing Agreement and/or Future Agreement."*

(k) A new Section 1.120 (Acquired Patent) is hereby added to the Agreement as follows:

"***Acquired Patent"*** *has the meaning set forth in Section 17.23."*

(l) A new Section 1.121 (Additional Milestone*)* is hereby added to the Agreement as follows:

*"**Additional Milestone**" has the meaning set forth in Section 7.4.6."*

(m) A new Section 1.122 (APPL License) is hereby added to the Agreement as follows:

*""**APPL License**" shall mean that certain Exclusive Patent License Agreement relating to "Amino Acid, Peptide, Polypeptide-Lipids (APPL) Derivatives and Uses Thereof" made effective November 1, 2013 (regarding MIT Case No. [**]) made by and between the M.I.T. and Shire AG, as amended from time to time, which license was assigned by Shire AG to Translate Bio."*

(n) A new Section 1.123 (Collaboration Term Extension) is hereby added to the Agreement as follows:

*""**Collaboration Term Extension**" has the meaning set forth in Section 2.2.2."*

(o) A new Section 1.124 ([**]) is hereby added to the Agreement as follows:

*""**[**]**" means [**]."*

(p) A new Section 1.125 (Major Markets) is hereby added to the Agreement as follows:

*""**Major Markets**" means [**]."*

(q) A new Section 1.126 (Negotiation Period) is hereby added to the Agreement as follows:

*""**Negotiation Period**" has the meaning set forth in Section 17.23."*

(r) A new Section 1.127 (OF-02 License) is hereby added to the Agreement as follows:

*""**OF-02 License**" shall mean that certain Exclusive Patent License Agreement relating to "Ionizable Lipid OF-02 and its use in mRNA Delivery" Agreement, made effective as of January 17, 2019 (regarding MIT Case No. [**]) made by and between M.I.T. and Translate Bio, as amended from time to time."*

(s) A new Section 1.128 (*SARS-CoV-2 Quality Agreement)* is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Quality Agreement**" has the meaning set forth in Section 4.4.3."*

(t) A new Section 1.129 (SARS-CoV-2 Sales Milestones*)* is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Sales Milestones**" has the meaning set forth in Section 7.4.4(b)."*

(u) A new Section 1.130 (SARS-CoV-2 Supply Agreement*)* is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Supply Agreement**" has the meaning set forth in Section 4.4.3."*

(v) A new Section 1.131 (SARS-CoV-2 Technology and Process Transfer Plan) is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Technology and Process Transfer Plan**" has the meaning set forth in Section 4.10.1."*

(w) A new Section 1.132 (SARS-CoV-2 Technology and Process Transfer Memorandum*)* is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Technology and Process Transfer Memorandum**" has the meaning set forth in Section 4.10.4."*

(x) A new Section 1.133 (SARS-CoV-2 Technology and Process Transfer Commencement Fee) is hereby added to the Agreement as follows:

*""**SARS-CoV-2 Technology and Process Transfer Commencement Fee**" has the meaning ascribed to it in Section 7.3.2."*

(y) A new Section 1.134 (Solicit) is hereby added to the Agreement as follows:

*""**Solicit**" has the meaning ascribed to it in Section 17.24."*

2. Section 2.2 (Collaboration Term) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

*"2.2.1 The Collaboration will begin on the Closing Date and the Collaboration will expire on June 30, 2022 unless extended at Sanofi's sole discretion in accordance with Section 2.2.2 or otherwise mutually agreed by the Parties in writing (the "**Collaboration Term**"). Sanofi shall have the right, on written notice to Translate Bio to terminate (a) the Collaboration with respect to all Collaboration Plans, if at any time Translate Bio is unable to perform its obligations under such Collaboration Plans for any*

Licensed Field or the Vaccine Platform Development due to lack of appropriate personnel or facilities or a Change of Control, and (b) the Collaboration with respect to any specific Collaboration Plan, if at any time Translate Bio is unable to perform its obligations under such Collaboration Plan for any Licensed Field, or the Vaccine Platform Development, due to lack of appropriate personnel or facilities or a Change of Control; provided, however, in each case (a) or (b) that such termination shall be effective as of the date specified by Sanofi in such notice which date is at least [**] after such notice is received by Translate Bio. In the event that Sanofi provides such a notice to Translate Bio with respect to (a) all of the Collaboration Plans, the Collaboration Term shall end as of the effective date of such notice and Sanofi shall continue to pay for the FTE Costs, in accordance with the applicable Collaboration Budget, and any non-cancellable Out-of-Pocket Costs, for a period of [**] after such notice is received by Translate Bio, and (b) one or more, but not all of the Collaboration Plans, the Collaboration Term shall end only with respect to such terminated Collaboration Plan(s) as of the effective date of such notice and (1) the Parties shall reallocate FTEs from terminated Collaboration Plan(s) to non-terminated Collaboration Plan(s) maintaining the aggregate Collaboration Budget for all Collaboration Plans (whether such Collaboration Plans were terminated or not) until the end of the period covered by Collaboration Budgets; and (2) Sanofi shall continue to pay for the FTE Costs, in accordance with the applicable Collaboration Budget, and any non-cancellable Out-of-Pocket Costs, for a period of [**] after such notice is received by Translate Bio.

*2.2.2 Sanofi may elect, in its sole discretion, to extend the Collaboration Term for one additional year, until June 30, 2023 ("**Collaboration Term Extension**"), by notifying Translate Bio of such election no later than December 31, 2021, which extended term may include additional Collaboration Plans for up to three (3) Pathogens not already the subject of Collaboration Plans, and the Collaboration Term Extension shall become effective upon payment of the Collaboration Term Extension Fee."*

3. Section 2.4.4 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

"Subject to Section 2.4.5, Sanofi shall have final decision-making authority, and the tie-breaking vote at the JSC, following the escalation in accordance with Sections 2.4.2 and 2.4.3 during the Collaboration Term, with respect to [**]; provided however that Sanofi shall not have the right [**] under this Agreement, including regarding [**], each of which shall be decided on mutual consent of the Parties, such consent not to be unreasonably withheld by either Party."

4. Section 2.7 (Reporting) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

*"2.7 **Reporting**. During the Collaboration Term (and any extension thereof), each Party will keep the applicable committee or team informed of progress and results of activities for which it is responsible or that it is permitted to conduct hereunder through its members on such committee or team at each regularly scheduled meeting thereof and as otherwise provided herein. Each Party shall disclose to the other Party, in a timely manner, the Collaboration Know-How in such Party's power, possession or control, including as required to enable such other Party to perform its activities under any Collaboration Plan and to determine ownership of such Collaboration Know-How in accordance with this Agreement; provided however that Sanofi shall have no obligation to [**].*

5. Section 3.2 (Collaboration Costs) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

"3.2.1 ***Collaboration Budget****. As of the Second Amendment Execution Date, the Parties have agreed to Collaboration Budgets for each of Influenza, [**] and SARS-CoV-2 Licensed Fields and for Vaccine Platform Development, each of which are included in Schedule 1.11 (Collaboration Budgets). Within [**] of the Second Closing, the Parties shall (a) update the Collaboration Budget for the SARS-CoV-2 Licensed Field and Vaccine Platform Development, and (b) shall agree to initial Collaboration Budgets for each of the [**] Licensed Fields, which updated or initial Collaboration Budgets (as the case may be), when agreed by the Parties, shall form part of Schedule 1.11 (Collaboration Budgets) and shall be incorporated by reference herein. In the event that Sanofi elects in its sole discretion to extend the Collaboration Term pursuant to Section 2.2.2, the Parties may agree to additional Collaboration Budgets for up to three (3) additional Pathogens. The Parties shall update the Collaboration Budgets at least annually in accordance with Section 3.1.2.*

3.2.2 ***Collaboration Costs****. The estimated costs for Translate Bio's Collaboration Activities will be as set forth in the applicable Collaboration Budget; provided, however, that Sanofi shall be responsible for paying FTE Costs, Out-of-Pocket Costs and Manufacturing Costs up to [**] percent ([**]%) of such estimated costs set forth in the applicable Collaboration Budget with respect to the Translate Bio Collaboration Activities. Any variation in excess of [**] percent ([**]%) of the Collaboration Budget will require Sanofi's express prior written consent. Notwithstanding the first sentence of this Section 3.2, in no event shall Sanofi pay to Translate Bio an amount that is less than the amount of the FTE Costs set forth in the aggregate of all Collaboration Budgets for all Collaboration Plans, unless Sanofi terminates all Collaboration Plans."*

6. Section 4.1.1 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

"Unless otherwise agreed by the Parties in writing, Translate Bio shall be responsible for manufacturing and supplying non-clinical Products, related Materials (other than Licensed Materials provided under Section 3.9 or made by Sanofi as described in Section 3.9 or Section 6.4.2) and investigational Products, in each case, as required by and pursuant to the Collaboration Plan and Supply Agreement (as applicable):

(a) for each of the Influenza, [**] Licensed Fields, until the earlier of (1) the end of the first Phase 2 clinical trial for the first Product to Start a Phase 2 clinical trial on a Licensed Field-by-Licensed Field basis, or (2) [**] following execution of the Technology and Process Transfer Memorandum or Deemed Completion, as applicable, has occurred for each initial Licensed Field on a Licensed Field by Licensed Field basis; provided however that if [**] is combined with [**] into a Multi-Component Product, Translate Bio's obligations in this paragraph (a) would include such Multi-Component Product but Translate Bio shall not have any obligation in respect of such a Multi-Component Product for any new order for Materials or Products after June 30, 2024; and

(b) for the SARS-CoV-2 Licensed Field, for non-clinical use and for all clinical trials required in such Licensed Field for orders placed no later than, the later of (i) the first Market Approval or (ii) June 30, 2025;

(c) for each of [**] Licensed Fields to the end of the first Phase I clinical trial for the first Product in such Licensed Field to Start a Phase I clinical trial; provided that Sanofi would not place any new orders for Materials or Products in the of [**] Licensed Fields after June 30, 2023.

(d) if the Collaboration Term is extended by Sanofi in its sole discretion in accordance with Section 2.2.2, for each of three (3) additional Licensed Fields (that is, such other Pathogens as Sanofi may select in its discretion), to the end of the first Phase I clinical trial for the first Product in such Licensed Field to Start Phase I; provided that Sanofi would not place any new orders for Materials or Products in such three (3) additional Licensed Fields after June 30, 2024.

Notwithstanding Section 4.7.8 (Deemed Completion), Translate Bio shall be responsible for manufacturing and supplying non-clinical Products, related Materials (other than Licensed Materials provided under Section 3.9 or made by Sanofi as described in Section 3.9 or Section 6.4.2) and investigational Products, in each case, as required by and pursuant to the Collaboration Plan and Supply Agreement (as applicable) for each of the [**] Licensed Fields referred to in paragraph (c) above during the period set forth in paragraph (c) and also, if Sanofi elects to exercise its Collaboration Term Extension, an additional three (3) Licensed Fields referred to in paragraph (d) above during the period set forth in paragraph (d) above, even if Sanofi is also manufacturing Products in such Licensed Fields.

The Parties will monitor Sanofi's demand for investigational Products so that Translate Bio will be able to meet Sanofi's requirements without interference with Translate Bio's other programs, including advanced planning, reservation of suites and employee allocations."

7. Section 4.4 (Supply and Quality Agreements) of the Agreement, as amended by the First Amendment, is hereby amended by adding a new subsection 4.4.3 (SARS-CoV-2 Commercial Supply Agreement) as follows:

***"SARS-CoV-2 Commercial Supply Agreement**. The Parties shall negotiate in good faith and execute a supply agreement (the **"SARS-CoV-2 Commercial Supply Agreement**") and a related quality agreement (the "**SARS-CoV-2 Quality Agreement**"), each such agreement shall be consistent with industry standards, governing the terms of the supply of Phase III and commercial supply of Products in the SARS-CoV-2 Licensed Field by Translate Bio by no later than December 31, 2020. The terms of the SARS-CoV-2 Commercial Supply Agreement shall include a [**] percent mark-up to be added to Translate Bio's Manufacturing Costs. Concurrent with the execution of the SARS-CoV-2 Supply Agreement, the Parties shall execute a separate Pharmacovigilance Agreement or amend any existing Pharmacovigilance Agreement as necessary with respect to the SARS-CoV-2 Licensed Field."*

8. Schedule 4.4 of the Agreement, as amended by the First Amendment, is hereby deleted.

9. Section 4.4.1 (Supply & Quality Materials) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

*"**Supply & Quality Matters**. Concurrent with the execution of the Second Amendment, the Parties will enter into a supply agreement (the "**Supply Agreement**") and have entered into related quality agreements (the "**Quality Agreements**") governing the terms of the supply of Products by Translate Bio."*

10. Section 4.7.1 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

*"4.7.1 **Technology and Process Transfer Plan**. As of the Second Amendment Execution Date, Translate Bio and Sanofi have established a plan for the transfer of Licensed Technology required for the development and manufacturing of Products in the Influenza virus, [**] Licensed Fields. Translate Bio shall use Commercially Reasonable Efforts to deliver to Sanofi the tangible items of the Licensed*

*Technology listed within Technology and Process Transfer Plan within the timeframes prescribed therein. The Technology and Process Transfer Plan, as amended by the mutual agreement by the Parties from time to time, is attached hereto as Schedule 4.7.1 (the "**Technology and Process Transfer Plan**")."*

11. Section 4.7.5 (Qualified Personnel) of the Agreement, as amended by the First Amendment, is hereby amended deleting that provision and replacing it as follows:

*"**Qualified Personnel**. Each Party will make their respective suitably qualified and experienced employees available (whether, as reasonably necessary, by telephone, e-mail, in person or such other method as the Parties may find mutually convenient) to execute the Technology and Process Transfer in accordance with Technology and Process Transfer Plan. Translate Bio's personnel that are transferring Licensed Technology under the Technology and Process Transfer Plan shall have actual knowledge of the Licensed Technology and Licensed Improvements, if any, they are transferring. The Technology and Process Transfer may include on-site training at Translate Bio's facilities and also at Sanofi's facilities as per the Technology and Process Transfer Plan."*

12. Section 4.9.5 (Escrow Period) of the Agreement, as amended by the First Amendment, is hereby amended deleting that provision and replacing it as follows:

*""**Escrow Period**" means the period commencing [**] after the Closing Date and continuing until the earliest of (i) execution of the Technology and Process Transfer Memorandum, (ii) Deemed Completion or (iii) termination of this Agreement; provided however that, with respect to the SARS-CoV-2 Licensed Field, the Escrow Period shall mean the period commencing on the Second Closing and continuing until the earliest of (i) execution of the SARS-CoV-2 Technology and Process Transfer Memorandum, (ii) manufacture and release of a [**] batch of formulated drug substance for a Product in the Licensed Field of SARS-CoV-2 by Sanofi or a subcontractor of Sanofi, (iii) termination of this Agreement or (iv) termination of Sanofi's license with respect to the SARS-CoV-2 Licensed Field."*

13. ARTICLE 4 MANUFACTURING of the Agreement, as amended by the First Amendment, is hereby amended by adding a new Section 4.10 (Technology Transfer: SARS-CoV-2) as follows:

***"**4.10.1. **SARS-CoV-2 Technology and Process Transfer Plan**. Translate Bio and Sanofi will establish a plan for the transfer of Licensed Technology required for the development and manufacturing of Products in the SARS-CoV-2 Licensed Field at [**] scale for each of the mRNA, LNP and formulated drug substance, consistent with Schedule 4.10.1 (the "**SARS-CoV-2 Technology and Process Transfer Plan**"). Translate Bio shall use Commercially Reasonable Efforts to deliver to Sanofi the tangible items of the Licensed Technology listed within the SARS-CoV-2 Technology and Process Transfer Plan within the timeframes prescribed therein. When such SARS-CoV-2 Technology and Process Transfer Plan is agreed by both Parties, it shall be incorporated herein by reference."*

*4.10.2 **Timing**. The Parties will commence performance of activities described in the SARS-CoV-2 Technology and Process Transfer Plan upon the payment of the first milestone in accordance with Section 7.4.1(b); provided however that if such milestone is not then due and has not been paid, Sanofi may elect, in its discretion, to pay the SARS-CoV-2 Technology and Process Transfer Commencement Fee by delivering to Translate Bio notice of such election; further provided however that if the first milestone in accordance with Section 7.4.1(b) is achieved after Sanofi has paid the SARS-CoV-2 Technology and Process Transfer Commencement Fee, then the amount of such SARS-CoV-2 Technology and Process Transfer Commencement Fee shall be fully credited against such milestone payment.*

4.10.3 ***Technology and Process Transfer Lead****. The Parties shall each appoint a technology and process transfer lead to oversee and manage the technical transfer process in accordance with SARS-CoV-2 Technology and Process Transfer Plan.*

4.10.4 ***Success Criteria/ SARS-CoV-2 Technology and Process Transfer Memorandum****. Within [**] following successful completion of the SARS-CoV-2 Technology and Process Transfer Plan in accordance with the Success Criteria listed in the SARS-CoV-2 Technology and Process Transfer Plan, the Parties shall execute a SARS-CoV-2 Technology and Process Transfer Memorandum, a form of which SARS-CoV-2 Technology and Process Transfer memorandum is attached hereto as Schedule 4.10.4 (the "****SARS-CoV-2 Technology and Process Transfer Memorandum****").*

4.10.5 ***Qualified Personnel****. Each Party will make their respective suitably qualified and experienced employees available (whether, as reasonably necessary, by telephone, e-mail, in person or such other method as the Parties may find mutually convenient) to execute the SARS-CoV-2 Technology and Process Transfer in accordance with SARS-CoV-2 Technology and Process Transfer Plan. Translate Bio's personnel or its CMOs that are transferring SARS-CoV-2 Licensed Technology under the SARS-CoV-2 Technology and Process Transfer Plan shall have actual knowledge of the Licensed Technology and Licensed Improvements, if any, they are transferring. The SARS-CoV-2 Technology and Process Transfer may include on-site training at Translate Bio's or its CMO's facilities and also at Sanofi's facilities as per the SARS-CoV-2 Technology and Process Transfer Plan. Translate Bio shall use commercially reasonable efforts to ensure that it has contracts in place with its CMOs necessary to complete any action in respect of the SARS-CoV-2 Technology and Process Transfer Plan that requires the cooperation or participation of such CMO so as to not delay the execution of such SARS-CoV-2 Technology and Process Transfer Plan.*

4.10.6 ***Third Parties****. In the event that Sanofi or Translate Bio need to retain any Third Party to assist with any aspect of executing the SARS-CoV-2 Technology and Process Transfer Plan, Sanofi or Translate Bio (as the case may be) shall execute an agreement with each such Third Party to protect the other Party's Confidential Information the terms of which will be consistent with this Agreement.*

4.10.7 ***Costs****. Sanofi shall bear all costs and expenses associated with the execution of the SARS-CoV-2 Technology and Process Transfer Plan. A budget for the cost of executing the SARS-CoV-2 Technology and Process Transfer Plan shall be established by the Parties, and mutually agreed by the Parties as part of such plan. In the event that Sanofi and Translate Bio perform technology transfer by Sanofi observing Translate Bio's CMO manufacturing of Product, and such Product will be supplied to Sanofi under this Agreement or a Supply Agreement, then Sanofi shall only pay the additional costs incurred by Translate Bio and such CMO for such technology transfer which are not otherwise already paid to Translate Bio pursuant to this Agreement or any Supply Agreement.*

4.10.8 ***Technical Assistance****. Upon execution of the SARS-CoV-2 Technology and Process Transfer Memorandum referred to in Section 4.10.4, and for a period of [**] thereafter, Translate Bio shall use Commercially Reasonable Efforts to provide reasonable assistance to Sanofi in connection with manufacturing of Products in the SARS-CoV-2 Licensed Field, at Sanofi's expense, and upon Sanofi's reasonable request."*

14. Subsection 6.1.1 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

"Sanofi shall use Commercially Reasonable Efforts to (a) research, develop and seek Market Approval for Products indicated for up to [**] separate Licensed Fields in each Major Market, and (b) following Market Approval of a Product in a Licensed Field in a Major Market, to commercialize such Product in such Major Market."

15. Subsection 6.3.5 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

"Sanofi shall provide any report required by any Pre-Existing Agreement or Future Agreement, at the frequency and with the information required by such Pre-Existing Agreement or Future Agreement, at least [**] before Translate Bio is required to provide such report to the applicable counterparty to such agreement. Such reports include the reports referred to in Section 1.11(g) of the Shire Agreement and Section 5 of each license included in the definition of MIT License. In the event that any such report would include the same information as set forth in another report and at a similar timing set forth in this Section 6.3, the Parties may agree that the report set forth in the other provisions of this Section 6.3, but not in this Section 6.3.5, may be suspended in favor of the report set forth in this Section 6.3.5. Upon Translate Bio's request, Sanofi shall provide any information in connection with such reports requested by Translate Bio, such as clarifications or additional information requested by the applicable counterparty to such agreement."

16. The heading ARTICLE 7 COLLABORATION FUNDING, LICENSE AND OPTION ISSUE FEES, OPTION EXERCISE FEES, MILESTONES, ROYALTIES of the Agreement, as amended by the First Amendment, is hereby renamed, deleted and replaced as follows:

*"ARTICLE 7 COLLABORATION FUNDING, OTHER FEES**,** LICENSE FEES, MILESTONES, ADDITIONAL MILESTONES, ROYALTIES"*

17. Section 7.1 (Collaboration Funding) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows:

*"7.1.1 **Collaboration Funding**. In consideration of the performance by Translate Bio of the Translate Bio Collaboration Activities in the Collaboration, Sanofi shall pay Translate Bio the agreed sum set out in the Collaboration Budget for each of (a) FTE Costs, (b) Out-Of-Pocket Costs, and (c) Manufacturing Costs. Each of FTE Costs, Out-Of-Pocket Costs or Manufacturing Costs is a "**Cost Category**", which shall be accounted for separately by Translate Bio and in no event shall Translate Bio include costs or expenses from one such Cost Category in another such Cost Category. In the event that the Collaboration Budget or Supply Agreement includes certain Out-of-Pocket Costs or Manufacturing Costs which Translate Bio is [**], Sanofi shall [**] the full amount of those Out-of-Pocket Costs and Manufacturing Costs to Translate Bio.*

*7.1.2 **External Funding**. The Parties shall discuss and coordinate efforts during the Collaboration Term (and any extension thereto) to seek and obtain funding which may be available from time to time to support the research, development, manufacture and commercialization of Products in the SARS-CoV-2 Licensed Field from Third Party organizations, including any governmental or non-governmental organization such as the United States Biomedical Advanced Research and Development Authority (BARDA) and the Coalition for Epidemic Preparedness Innovations (CEPI); provided however that no Party shall agree to accept any funding on behalf of the other Party without such Party's express prior consent, and further provided that no Party shall be obligated to seek or accept the funding of any such Third Party. Any dispute under this Section 7.1.2 shall be resolved by referring the matter to the JSC.*

18. Section 7.2 (License and Option Issue Fees) of the Agreement, as amended by the First Amendment, is hereby renamed, deleted and replaced in its entirety as follows:

*"**License Fees**. As partial consideration of the license granted herein, Sanofi shall pay Translate Bio the agreed upfront fees in respect of the licenses granted herein with respect to the Licensed Technology, in two installments that are each non-refundable, non-creditable: a first payment of forty-five million dollars ($45,000,000) to be dated no earlier than the Closing, which payment Translate Bio acknowledges has been paid by Sanofi in full, and (b) a second payment of three hundred million dollars ($300,000,000) within ten (10) business days after receiving all of the following (i) Translate Bio's invoice, (ii) Translate Bio's wire transfer information required to process the payment and (iii) Translate Bio's residency forms. Translate Bio's invoice for the second payment referred to in item (b) above shall not be dated earlier than the Second Closing Date."*

19. Section 7.3 (Option Exercise Fees) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety with the following new provision entitled "Other Fees":

"*7.3.1 **Collaboration Term Extension Fee**. Sanofi shall pay Translate Bio a non-refundable, non-creditable fee of seventy-five million dollars ($75,000,000) (the "**Collaboration Term Extension Fee**") within [**] after receiving all of the following (i) Translate Bio's invoice, (ii) Translate Bio's wire transfer information required to process the payment and (iii) Translate Bio's residency forms; provided however that Translate Bio may not issue any invoice under this Section 7.3.1 (Collaboration Term Extension Fee) until Sanofi has delivered notice of its election to exercise the Collaboration Term Extension in accordance with Section 2.2.2."*

*7.3.2 **SARS-CoV-2 Technology and Process Transfer Commencement Fee**. In the event that Sanofi delivers notice of its election to proceed with the execution of the SARS-CoV-2 Technology and Process Transfer Plan in accordance with Section 4.10.2, Sanofi shall pay Translate Bio a non-refundable, non-creditable (except as set forth in Section 4.10.2) fee of [**] dollars ($[**]) (the "**SARS-CoV-2 Technology and Process Transfer Commencement Fee**") within [**] after receiving all of the following (i) Translate Bio's invoice, (ii) Translate Bio's wire transfer information required to process the payment and (iii) Translate Bio's residency forms; provided however that Translate Bio may not issue any invoice under this Section 7.3.2 (SARS-CoV-2 Technology and Process Transfer Commencement Fee) until Translate Bio receives Sanofi's notice in accordance with Section 4.10.2."*

20. Section 7.4.1 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced with the following:

"7.4.1 ***Development and Regulatory Milestones***.

(a) The following development and regulatory milestones shall be paid by Sanofi once per Licensed Field the first time such Milestone is achieved by a Product in such Licensed Field (other than the SARS-CoV-2 Licensed Field):

Milestone:	*Milestone payment:*
[**]	*[**]*
[**]	*[**]*

Milestone:	*Milestone payment:*
[**]	*[**]*
[**]	*[**]*
[**]	*[**]*

(b) The following development and regulatory milestones which demonstrate proof of concept of the Licensed Technology (which demonstration shall be the SARS-CoV-2 Licensed Field and no other Licensed Field), shall be paid by Sanofi one time only when such Milestone is first achieved by a Product:

Milestone:	*Milestone payment:*
[**]	*[**]*
[**]	*[**]*
[**]	*[**]*

21. Section 7.4.4 (Sales Milestones) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced with the following:

"Sales Milestones.

*(a) Sanofi will pay Translate Bio the following sales milestones on aggregate, annual, royalty-bearing Net Sales with respect to all Products in a Licensed Field (other than the SARS-CoV-2 Licensed Field), once per Licensed Field (the "**Sales Milestones**"):*

When aggregate royalty-bearing annual Net Sales for all Products in a Licensed Field (other than the SARS-CoV-2 Licensed Field) first reach the following thresholds:	*Sales Milestone payment:*
(i) $[**] to less than $[**]	*[**]*
(ii) $[**] to less than $[**]	*[**]*
(iii) $[**] or more	*[**]*

No more than [**] Sales Milestones per the table above may be earned in any calendar year, and where [**] such Sales Milestones are earned in a single calendar year, Sanofi will pay [**] such Sales Milestone when achieved and may defer payment of [**] Sales Milestone for [**]. For example, if aggregate royalty-bearing annual Net Sales for all Products in a Licensed Field first reach $[**] or more, Sanofi shall pay Translate Bio the Sales Milestone in item [**] above plus [**] Sales Milestone, which [**] Sales Milestone shall be elected by Translate Bio by written notice to Sanofi following receipt of payment of the [**] Sales Milestone. The [**] Sales Milestone [**].

*(b) Sanofi will pay Translate Bio the following sales milestones on aggregate, annual, royalty-bearing Net Sales with respect to all Products in the SARS-CoV-2 Licensed Field when the following thresholds (the "**SARS-CoV-2 Sales Milestones**") are reached:*

When aggregate royalty-bearing annual Net Sales for all Products in the SARS-CoV-2 Licensed Field first reach:	*Sales Milestone payment:*
(i) $[**]	*[**]*
(ii) $[**]	*[**]*

Each SARS-CoV-2 Sales Milestone would be payable one time only."

22. Section 7.4 (Milestones) of the Agreement, as amended by the First Amendment, is hereby amended by adding a new subsection 7.4.6 (Additional Milestones) as follows:

*"**Additional Milestones**. As partial consideration of the license rights granted herein, Sanofi agrees to pay Translate Bio the following amounts upon achievement of the milestones set forth below by Sanofi, its Affiliates or Sublicensees (or, to the extent anticipated in the applicable Collaboration Plan, by or on behalf of Translate Bio) (each an "**Additional Milestone**") in accordance with Section 8.1, except as expressly provided for in this Section 7.4.6, each such Additional Milestone payment to be made one time only:*

Additional Milestone:	*Additional Milestone payment:*
[**]	*[**]*
[**]	*[**]*
[**]	*[**]*
[**]	*[**]*

For the purpose of each of the Additional Milestones, "[**]" shall mean that [**].

In the event that [**] of the above Additional Milestone are achieved in a single calendar year, Sanofi would pay [**] such Additional Milestones in such calendar year, and [**] Additional Milestone payment will be payable [**].

Sanofi and Translate Bio shall each use Commercially Reasonable Efforts to achieve each of the Additional Milestones by no later than December 31, 2024."

23. Section 7.5.2 (Third Party Royalty Reductions) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced with the following:

*"**Third Party Royalty Reductions**. Subject to Section 7.6, when Translate Bio's royalty obligations to any Third Party under the Pre-Existing Agreements have expired, been terminated, or are reduced, the royalty Sanofi would pay Translate Bio pursuant to Section 7.5.1 would be reduced by [**] per cent ([**]%) of the amount that Translate Bio's royalty to such Third Party is reduced. For example, if Translate Bio's royalties payable under the Shire Agreement are reduced to [**]%, then Sanofi's royalty under Section 7.5.1 would be reduced by [**]% in each applicable royalty tier. Notwithstanding the first sentence of this paragraph, in the event that during the Royalty Term, Translate Bio amends the Shire Agreement so as to reduce or revoke the earn-out provision of such agreement as part of an amendment to such agreement in exchange for consideration in any form (including without limitation, cash, equity, in-kind, exchange of rights or otherwise) as recorded in the audited financial statements of Translate Bio, Sanofi would pay to Translate Bio the royalty rates provided for in Section 7.5.1, except such royalty rates would be adjusted in accordance with this Section 7.5.2 with respect to (a) any then remaining royalty obligations under any Pre-Existing Agreements other than the Shire Agreement and (b) any remaining royalty obligations to Shire if the earn out provisions were reduced rather than revoked.."*

24. Section 7.5 (Royalties and Royalty Reductions) of the Agreement, as amended by the First Amendment, is hereby amended by adding a new subsection 7.5.6 (Adjustments to Royalties in SARS-CoV-2 Licensed Field).

*"**Adjustments to Royalties in SARS-CoV-2 Licensed Field.** In the SARS-CoV-2 Licensed Field, where Products are supplied as a donation or are otherwise transferred by Sanofi, its Affiliates and Sublicensees to a Third Party without any profit margin, the royalties payable to Translate Bio shall be adjusted so as to pay to Translate Bio only such royalties as would be owed by Translate Bio to any Third Party and Translate Bio hereby agrees to forego any additional royalties on such Products at no margin in the SARS-CoV-2 Licensed Field."*

25. The first paragraph of Section 8.1 (Payment Terms) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced as follows:

*"**Payment terms**. Except as provided for in Section 7.1 (Collaboration Funding), Section 7.2 (License Fees), Section 7.3 (Other Fees), Section 6.3.4, Section 7.4.5 (Special Payment Terms for Milestones under Shire Agreement) or Section 7.4.6 (Additional Milestones), all amounts payable by Sanofi hereunder shall be paid within [**] of the receipt of the invoice at the following mailing address:"*

26. Section 8.7 (Pre-Existing Agreements) of the Agreement, as amended by the First Amendment, is hereby deleted in its entirety and replaced as follows:

*"**Pre-Existing Agreements**. Prior to the Second Amendment Execution Date, Translate Bio disclosed to Sanofi the Pre-Existing Agreements listed on Schedule 1.80 (Pre-Existing Agreements). As between them, the Parties have agreed that all fees, milestones, royalties and other costs payable under such Pre-Existing Agreements shall be paid by Translate Bio and that Sanofi shall have no liability to any Third Party with respect to the payments due under such agreements, but shall, where applicable, comply with reporting and other obligations under such Pre-Existing Agreements."*

27. The last sentence of Section 9.1 (Exclusive Licenses Granted to Sanofi) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows

"Any license under the rights granted to Translate Bio in accordance with each license included in the definition of MIT License shall be limited to the scope and purposes set forth in such MIT License."

28. Section 9.2 (Option Rights Granted to Sanofi) of the Agreement, as amended by the First Amendment, is hereby deleted in its entirety and replaced with the word [Reserved].

29. Section 9.4 (Governmental Rights) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows

*"**Governmental Rights**. If a Product contains or is made utilizing Licensed Technology developed with resources provided by the United States Federal Government (such as the subject matter of each license included in the definition of MIT License), then the Parties shall comply with all applicable Laws relevant thereto (including the Bayh-Dole Act). Sanofi may request, where necessary, that Translate Bio request that the relevant owner of the Licensed Technology or Licensed Improvement, as the case may be, seek a waiver from the United States Federal Government to the requirement to manufacture a Product, in whole or in part, in the United States, and if necessary, Translate Bio and Sanofi shall cooperate, and provide reasonable assistance to the relevant owner, to seek such a waiver, at Sanofi's expense."*

30. All references to "MIT License" in Sections 9.8.1 through 9.8.3 of the Agreement shall be replaced with "APPL License". In the event that Sanofi deems it necessary or useful to further sublicense the OF-02 License, Translate Bio shall use Commercially Reasonable Efforts to amend the OF-02 License to allow for such sublicense pursuant to terms no more restrictive to Sanofi that the terms applicable under Section 9.8.1 with respect to the APPL License.

31. Section 9.9 (Affiliates) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced as follows:

*"**Affiliates**. The rights granted to Sanofi under Section 9.1 (Exclusive Licenses Granted to Sanofi) and 9.8 (Sub-Licenses) may all be practiced by its Affiliates, and the provisions of Section 17.1 (Affiliates) shall apply with respect thereto."*

32. Section 9.13 (Specific obligations re MIT License) of the Agreement, as amended by the First Amendment, is hereby deleted in its entirety and replaced as follows:

*"**Specific obligations re MIT License**. With respect to each license included in the definition of MIT License, Sanofi agrees to comply with the provisions of Schedule 9.13 (Specific obligations re MIT License), unless Sanofi has terminated the rights it sub-licensed under such MIT License in accordance with Section 16.5 (Termination of Rights under MIT License)."*

33. Section 9.14 (Waiver or Amendment of MIT License) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows

*"**Waiver or Amendment of MIT License**. In the event that a provision of any license included in the definition of MIT License may impose a material hardship on Sanofi and/or could create a material impediment to the commercialization of Products hereunder, Translate Bio shall, at Sanofi's expense, use Commercially Reasonable Efforts to obtain a waiver from M.I.T. or execute an amendment to such MIT License to relieve Sanofi of such hardship as soon as practicable upon Sanofi's reasonable request."*

34. Section 13.11.1 of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows

*"During the Term of this Agreement, each Party agrees to (i) provide the other Party the opportunity to review any proposed abstracts, manuscripts or other form of public disclosure of scientific results under this Agreement, including any such public disclosure in the form of any poster, student thesis, slide, text of oral presentations, or text of any transmission through any electronic media, which relate to any Product in a Licensed Field (each, a "**Publication**") at least [**] prior to their intended submission for publication and (ii) upon request, not to submit any such Publication until the other Party is given a reasonable period of time, not to exceed [**], to secure Patent protection for any material in such Publication which it believes to be patentable. Except as provided for in Section 13.6 (Authorized Disclosure) 13.9 (Confidential Treatment of Terms and Conditions) or 13.10 (Press Releases), no Party shall have the right to publish or present or otherwise disclose Confidential Information of the other Party without the prior written consent of such other Party, which consent may be withheld."*

35. Section 13.11 (Publications) of the Agreement, as amended by the First Amendment, is hereby amended by adding a new Section 13.11.5 as follows:

"Within [**] following the Second Closing Date, the Parties, through the JSC, shall agree to a plan regarding scientific publications arising from the Collaboration during the Collaboration Term and any Collaboration Term Extension. Translate Bio shall propose an initial draft of such plan within [**] of the Second Amendment Execution Date. The Parties may modify any publication plan, as mutually agreed by them, from time to time."

36. Section 14.2 (Translate Bio's Representations and Warranties) of the Agreement, as amended by the First Amendment, is hereby amended by deleting subsection (e) and replacing it as follows:

"no Licensed Patent is the subject of any pending interference, opposition, cancellation or patent protest, except, as of the Second Amendment Execution Date, those Licensed Patents listed on Schedule 14.2(e), which are, as of the Second Amendment Execution Date, the subject of opposition proceedings in the European Union."

37. Section 14.2 (Translate Bio's Representations and Warranties) of the Agreement, as amended by the First Amendment, is hereby amended by adding new subsections (t) and (u) as follows:

"(t) prior to the Second Amendment Execution Date, Translate Bio disclosed to Sanofi true, complete, and correct copies of the Pre-Existing Agreements, including all amendments and modifications thereto, and any material notices to the Pre-Existing Agreements and Translate Bio has the right to grant sublicenses to Sanofi and its Affiliates in accordance with the terms of the Pre-Existing Agreements; and

(u) all representations and warranties (a) through to (d) and (f) through to and including (s) are true as of the Second Amendment Execution Date;"

38. Section 15.2 (Indemnity by Sanofi) of the Agreement, as amended by the First Amendment, is hereby deleted and replaced in its entirety as follows

*"**Indemnity by Sanofi**. Sanofi will defend, indemnify, and hold harmless Translate Bio, its Affiliates, and their respective directors, officers, employees, agents and representatives (collectively, "**Translate Bio Indemnitees**"), at Sanofi's cost and expense, from and against any and all Losses arising out of any Third Party Claims brought against any Translate Bio Indemnitee to the extent such Losses result from: (a) the negligence or willful misconduct of Sanofi or its Affiliates (or any employees, agents or representatives of any of them) in performing Sanofi's obligations or exercising Sanofi's rights hereunder, (b) a breach by Sanofi of this Agreement, including a breach of Sanofi's representations or warranties in Section 14.1 (Mutual Representations and Warranties), or any Ancillary Agreement, (c) the development, manufacture or commercialization of any Product in a Licensed Field by or on behalf of Sanofi, any of its Affiliates or its Sublicensees or (d) any claim arising from the alleged breach by Sanofi or by any of its Affiliates or its Sublicensees of its/their obligations under (i) any sub-license granted under any license included in the definition of MIT License or (ii) any Future Agreement except to the extent that such claim arises from the actions or omissions of Translate Bio or any of its Affiliates."*

39. Section 16.5 (Termination of Rights under MIT License) of the Agreement, as amended by the First Amendment, is hereby deleted in its entirety and replaced as follows:

*"**Termination of Rights under MIT License**. Subject to the terms of each license included in the definition of MIT License, Sanofi will have the right to terminate this Agreement solely with respect to any rights sublicensed to it by Translate Bio under such MIT License on three (3) months' prior written notice to Translate Bio. Sanofi shall remain liable for payment for all amounts due to Translate Bio arising from such sublicense until the effective date of such termination."*

40. A new Section 17.23 (Translate Bio Acquisition of Third Party) is hereby added to the Agreement, as amended by the First Amendment, as follows:

*"**Translate Bio Acquisition of Third Party**. Notwithstanding anything to the contrary in this Agreement, in the event that Translate Bio acquires any Patent from a Third Party (an "**Acquired Patent**"), which Patent may be infringed by the manufacture, use, offer for sale, sale, or importation or other exploitation of a Product, Translate Bio shall provide Sanofi with notice of such Acquired Patent to enable Sanofi to determine if it wishes to obtain a license under such Acquired Patent to research, develop, make, have made, use, register, sell, have sold, offer for sale, import, have imported, have exported and export the applicable Product(s) in the Licensed Field in the Territory after having reasonable opportunity to conduct due diligence with respect thereto whether any of the foregoing activities would infringe a valid claim of such Acquired Patent, and in such event, Translate Bio shall first offer to Sanofi the opportunity to take a license under such Acquired Patent prior to offering such opportunities to any Third Party, the terms of which license agreement would be negotiated in good faith during the Negotiation Period. During the first [**] following the date of the notice of such Acquired Patent (the "**Negotiation Period**"), Translate Bio will not itself, or instruct any Third Party to, enforce such Acquired Patent against Sanofi, its Affiliates and Sublicensees.*

41. A new Section 17.24 (Non-Solicitation) is hereby added to the Agreement, as amended by the First Amendment, as follows:

*"**Non-Solicitation**. During the Collaboration Term and for [**] thereafter, neither Party nor any of its Affiliates, shall, without the prior consent of the other Party, solicit or recruit the employment or engagement as an independent contractor of (collectively, "**Solicit**"), any individual (a) who is an employee of such other Party or any of such other Party's Affiliates and (b) who has been a member of the JSC or the JPT or an Alliance Manager. General recruiting activities, including placing a job listing with any journal, website, or any other publication or any recruitment firm, by a Party or any of its Affiliates shall not be deemed solicitation of any employee or independent contractor of the other Party or of any of its Affiliates."*

42. The following Schedules to the Agreement, as amended by the First Amendment, are hereby added (in the case of Schedules added to the Agreement in accordance with this Second Amendment) or are hereby deleted and replaced with the Schedules attached hereto (in the case of Schedules already included in the Agreement or the First Amendment and updated in accordance with this Second Amendment):

Schedule 1.11 (Collaboration Budget) for the following Licensed Fields: Influenza Virus[**], SARS-CoV-2, [**] and for the Vaccine Platform Development.

Schedule 1.12 (Collaboration Plan) for the following Licensed Fields: Influenza Virus, [**], SARS-CoV-2, [**] and for the Vaccine Platform Development.

Schedule 1.54 (Licensed Patents)

Schedule 1.89 (Sanofi Background Technology)

Schedule 2.5 (Responsibilities of the JSC)

Schedule 2.6 (Responsibilities of the JPT)

Schedule 4.7.1 (Technology and Process Transfer Plan)

Schedule 4.10.1 (SARS-CoV-2 Technology and Process Transfer Plan)

Schedule 4.10.4 (SARS-CoV-2 Form of Technology and Process Transfer Plan Memorandum)

Schedule 9.13 (Specification obligations re MIT License)

Schedule 14.2(e) (Licensed Patents which are the subject of opposition proceedings in the European Union.)

43. The following provisions of the First Amendment are hereby deleted and each replaced with the word [Reserved]: Section 6, Section 7, Section 12, and Section 13.

44. In accordance with Section 4.1(f)(iii) of the OF-02 License, Translate Bio shall elect to make Sanofi Pasteur Inc. a SUBLICENSEE (as that term is defined in the OF-02 License) under the OF-02 License by providing to M.I.T. written notice of such election, and by making payment of the required fee of [**] dollars ($[**]) to M.I.T. in accordance with the terms of the OF-02 License.

45. The Parties acknowledge that by the inclusion of the OF-02 License within the definition of the MIT License, it is the express intent of the Parties that the OF-02 License shall be treated in all respects under the Agreement as a Pre-Existing Agreement and not as a Future Agreement and the Agreement shall be interpreted in such a manner consistent with that intent.

46. This Second Amendment amends the Agreement (as amended by the First Amendment, except as provided herein) solely to the extent expressly provided herein as of the Second Amendment Execution Date. In all other respects, the Agreement (as amended by the First Amendment, except as provided herein) continues in full force and effect and is ratified in all respects. Any references in the Agreement to the "Agreement" will be deemed to mean the Agreement as amended by the First Amendment and this Second Amendment. The provisions of the Agreement apply to this Second Amendment except to the extent this Second Amendment amends any such provisions. If there is a conflict between the provisions of this Second Amendment and the Agreement (as amended by the First Amendment), the provisions of this Second Amendment control.

47. This Second Amendment has been executed on June 22, 2020 (the "**Second Amendment Execution Date**").

48. This Second Amendment will become effective on the Second Closing Date.

49. The obligations of each Party to consummate the transactions contemplated by this Second Amendment will be subject to the fulfillment of each of the following conditions: (a) the filings of Translate Bio and Sanofi pursuant to the HSR Act will have been made and the applicable waiting period and any extensions thereof will have expired or been terminated without action to prevent the Parties from implementing the transactions contemplated by this Agreement with respect to the United States; and (b) no Governmental Authority will have enacted any applicable Laws which has the effect of making the transactions contemplated by this Agreement illegal, otherwise restraining or prohibiting consummation of such transaction or causing the transaction contemplated hereunder to be rescinded following completion thereof.

50. Within [**] after the Second Amendment Execution Date, both Parties shall file a copy of this Second Amendment and their respective premerger notification and report forms with DOJ and the FTC pursuant to the HSR Act.

51. The Parties shall use commercially reasonable efforts to promptly obtain clearance required under the HSR Act for the consummation of this Second Amendment and shall keep each other apprised of the status of any communications with, and any inquiries or requests for additional information from, the FTC and the DOJ and shall comply promptly with any such inquiry or request; provided, however, that neither Party shall be required to consent to the divestiture or other disposition of any of its assets or assets of its Affiliates or to consent to any other structural or conduct remedy, and each Party and its Affiliates shall have no obligation to contest, administratively or in court, any ruling, order or other action of the FTC or DOJ or any Third Party respecting the transactions contemplated by this Second Amendment. The Parties commit to instruct their respective counsel to facilitate and expedite the identification and resolution of any such issues and, consequently, the expiration of the applicable HSR Act waiting period. Each Party's counsel will undertake (i) to keep each other appropriately informed of communications from and to personnel of the reviewing antitrust authority, and (ii) to confer with each other regarding appropriate contacts with and response to personnel of the FTC or DOJ.

52. The consummation of the transactions set forth in this Second Amendment (the "**Second Closing**") shall take place at 10:00am Eastern Time at Boston, Massachusetts, US, on the third (3rd) business day after all conditions of closing set forth in Section 49 of this Second Amendment have either been met or waived (other than conditions which by their nature are to be satisfied on the Second Closing Date), or at such other time date and place as the Parties may mutually agree on in writing. The date on which the Second Closing is to occur is referred to herein as the "**Second Closing Date**".

53. Concurrent with the execution of this Second Amendment, Sanofi and Translate Bio will enter into a Securities Purchase Agreement.

54. This Second Amendment may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts will be deemed an original, will be construed together and will constitute one and the same instrument. This Second Amendment may be executed using Adobe Sign or other validated e-signature platform or other electronic means (such as in portable document format (PDF)) without affecting the validity thereof.

[signatures on next page]

IN WITNESS WHEREOF, the Parties have executed this Second Amendment to the Agreement effective as of the Second Amendment Execution Date.

Translate Bio MA, Inc.

By: /s/ Ronald C. Renaud, Jr.

Name: Ronald C. Renaud, Jr
Title: President and CEO

Sanofi Pasteur Inc.

By: /s/ John Shiver

Name: John Shiver
Title: Senior Vice President, Research & Development