EX-10.45 9 d939702dex1045.htm EX-10.45

Exhibit 10.45

**Execution Version** 

THE SYMBOL "[\*\*\*]" DENOTES PLACES WHERE CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH (i) NOT MATERIAL, AND (ii) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED

COLLABORATION AGREEMENT

by and between

PFIZER INC.

and

**BIONTECH SE** 

March 17, 2020

# TABLE OF CONTENTS

| 1.  | DEFINITIONS  | 1         |
|-----|--|-----------|
| 2.  | SCOPE OF COLLABORATION                                 | 19        |
| 3.  | LICENSES   | 19        |
| 4.  | COMMERCIALIZATION                                      | 27        |
| 5.  | PAYMENTS AND FUNDING                                   | 27        |
| 6.  | RESEARCH AND DEVELOPMENT PLAN                          | 33        |
| 7.  | CONTRACT GOVERNANCE                                    | 34        |
| 8.  | MANUFACTURING  | 39        |
| 9.  | DEVELOPMENT, REGULATORY AND PHARMACOVIGILANCE          | 41        |
| 10. | INTELLECTUAL PROPERTY                                  | 48        |
| 11. | CONFIDENTIALITY  | <b>58</b> |
| 12. | REPRESENTATIONS AND WARRANTIES                         | 62        |
| 13. | GOVERNMENT APPROVALS; TERM AND TERMINATION             | 70        |
| 14. | CHANGE OF CONTROL                                      | 74        |
| 15. | LIMITATION ON LIABILITY, INDEMNIFICATION AND INSURANCE | <b>75</b> |
| 16. | MISCELLANEOUS  | <b>78</b> |

i

#### **COLLABORATION AGREEMENT**

This Collaboration Agreement (the "<u>Agreement</u>") is entered into as of March 17, 2020 (the "<u>Effective Date</u>"), by and between Pfizer Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at 235 East 42nd Street, New York, New York, 10017 United States ("<u>Pfizer</u>") and BioNTech SE, a corporation organized and existing under the laws of Germany and having a place of business at An der Goldgrube 12, D-55131 Mainz, Germany ("<u>BioNTech</u>"). Pfizer and BioNTech may each be referred to herein individually as a "<u>Party</u>" and collectively as the "<u>Parties</u>".

WHEREAS, BioNTech owns or otherwise Controls (as defined below) certain patents, patent applications, technology, know-how, scientific and technical information and other proprietary rights and information relating to the identification, research and development of Candidates (as defined below) in the Field (as defined below) for delivery via Delivery Technology (as defined below);

WHEREAS, Pfizer has extensive experience and expertise in the development and commercialization of pharmaceutical and biopharmaceutical products;

WHEREAS, in view of the current COVID-19 crisis, Pfizer and BioNTech wish to engage in expedited collaborative research and development pursuant to the Research and Development Plan (as defined below) to identify and develop Candidates for inclusion in the Product, seek expedited regulatory approval for such Product, and launch such Product in all countries of the Territory (as defined below) as quickly as reasonably possible; and

WHEREAS, Pfizer and BioNTech wish that Pfizer Commercializes the Product in all countries of the Territory, subject to BioNTech having the right to exclusively commercialize the Product in the BioNTech Commercialization Territory.

NOW THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

### 1. **DEFINITIONS**

As used in this Agreement, the following terms will have the meanings set forth below:

1.1. "Affiliate" means any entity directly or indirectly controlled by, controlling, or under common control with, a Person, but only for so long as such control will continue. For purposes of this definition, "control" (including, with correlative meanings, "controlled by", "controlling" and "under common control with") means (a) possession, direct or indirect, of the power to direct or cause direction of the management or policies of an entity (whether through ownership of securities or other ownership interests, by contract or otherwise), or (b) beneficial ownership of more than 50% of the voting securities or other ownership or general partnership interest (whether directly or pursuant to any option, warrant or other similar arrangement) or other comparable equity interests of an entity; *provided*, *however*, that where an entity owns a majority of the voting power necessary to elect a majority of the board of directors or other governing board of another entity, but is restricted from electing such majority by contract or otherwise, such entity will not be considered to be in control of such other entity until such time as such restrictions are no longer in effect. Notwithstanding the foregoing, for the purposes of this Agreement, AT Impf GmbH, having its place of business at Rosenheimer Platz 6, 81669 Munich, Germany, and any entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with AT Impf GmbH (other than BioNTech SE or any entity that is directly or indirectly controlled by BioNTech SE) (collectively, the "Impf Group") shall not be considered Affiliates of BioNTech.

- 1.2. "Anti-Corruption Laws" means all applicable anti-bribery and anti-corruption laws and regulations, including the U.S. Foreign Corrupt Practices Act of 1977, the U.K. Bribery Act 2010, and the local laws and regulations of any countries in which Candidates or Products, payments or services will be provided or procured under or pursuant to this Agreement.
- 1.3. "Applicable Data Protection Law" means all applicable personal data protection laws, rules and regulations, including the EU General Data Protection Regulation ("GDPR").
- 1.4. "Bankruptcy Code" means Section 101(35A) of Title 11 of the United States Code, as amended, or such other legislation, Law or code with effect in another jurisdiction to which BioNTech or its Affiliates is subject having equivalent or reasonably similar purpose or provisions to the foregoing.
- 1.5. "Binding Obligation" means, with respect to a Party (a) any oral or written agreement or arrangement that binds or affects such Party's operations or property, including any assignment, license agreement, loan agreement, guaranty, or financing agreement, (b) the provisions of such Party's charter, bylaws or other organizational documents or (c) any order, writ, injunction, decree or judgment of any court or Governmental Authority entered against such Party or by which any of such Party's operations or property are bound.
- 1.6. "BioNTech Commercialization Territory" means (a) Germany and Turkey, until such time, on a country by country basis, a BioNTech Territory Exit Option is exercised by BioNTech in respect of one or both of those countries; (b) those countries, on a country by country basis, which become Pfizer Exit Countries (if any); and (c) those countries within the Developing Countries Territory for so long as BioNTech or its Affiliate or designee pursuant to the relevant Third Party Funder agreement undertakes Commercialization of the Product in such countries.
- 1.7. "BioNTech Improvement" means any Research and Development Program Technology, regardless of inventorship, that is a modification or improvement made to the RNA Technology or RNA Process Technology and (a) would also be applicable to one or more candidates or products in addition to or other than the Candidates or Products (b) is not predominantly directed to the Pfizer Technology and (c) could have reasonably been developed without the aid, use or application of Pfizer Materials, Pfizer Improvements or Pfizer's Confidential Information or any improvements or enhancements thereto.
  - 1.8. "BioNTech Know-How" means [\*\*\*].
- 1.9. "BioNTech Materials" means any tangible materials (but not information about or contained in such materials) owned or Controlled by BioNTech that relate to or embody the BioNTech Know-How or BioNTech Patent Rights.

1.10. "BioNTech Patent Right" means any Patent Right (other than Pfizer Patent Rights or Patent Rights jointly owned by BioNTech and Pfizer pursuant to Section 10.2) in any form and whether pending or issued that (a) is Controlled by BioNTech or any of its Affiliates as of the Effective Date or comes into the Control of BioNTech or any of its Affiliates during the Term (other than, in either case, through the grant of a license by Pfizer) and (b) claims any BioNTech Know-How.

- 1.11. "<u>BioNTech Technology</u>" means the BioNTech Patent Rights, BioNTech Materials, BioNTech Know-How. For avoidance of doubt, BioNTech Technology includes all Intellectual Property Rights Controlled by BioNTech pursuant to the Fosun Agreement.
  - 1.12. "BioNTech Territory Exit Option" is defined in Schedule 4.1.
- 1.13. "BioNTech Third Party Agreement" means any agreement between BioNTech (or any of its Affiliates) and any Third Party (such Third Party, a "Third Party Licensor") that (a) relates to any of the BioNTech Technology or Research and Development Program Technology, or (b) otherwise grants a license or otherwise transfers any right to practice under any Patent Rights or Know-How, in each case that relate to the Candidates or Products or activities under this Agreement. For clarity, all Current Licenses shall be deemed BioNTech Third Party Agreements hereunder and all Current Licensors shall be deemed Third Party Licensors hereunder.
- 1.14. "Biologics License Application" or "BLA" means an application requesting permission from the FDA to introduce, or deliver for introduction, a biological product into interstate commerce, or any similar application or submission for marketing authorization of a product filed with a Regulatory Authority to obtain Regulatory Approval for such product in a country or group of countries.
- 1.15. "Biosimilar Notice" means a copy of any application submitted by a Third Party to the FDA under 42 U.S.C. § 262(k) of the Public Health Service Act (or, in the case of a country of the Territory outside the United States, any similar law) for Regulatory Approval of a biopharmaceutical product, which application identifies a Product as the Reference Product with respect to such product, and other information that describes the process or processes used to manufacture the biopharmaceutical product.
- 1.16. "Business Day" means a day other than a Saturday, Sunday or bank or other public holiday in New York, New York, USA or Mainz, Germany.
- 1.17. "Candidate" means an immunogenic composition in the Field that comprises Unmodified RNA Technology, Modified RNA Technology or Replicon Technology that (a) is Developed pursuant to the Research and Development Plan, (b) is Controlled by BioNTech as of the Effective Date or from time to time during the Term or (c) subject to Section 4.1, is Exploited by any of the Parties or their Affiliates pursuant to this Agreement, the Commercialization Terms and the Commercialization Agreement. Those Candidates Controlled by BioNTech and existing as of the Effective Date are set forth in Schedule 1.17.
- 1.18. "Calendar Quarter" means the respective periods of three consecutive calendar months ending on March 31, June 30, September 30 and December 31.
  - 1.19. "Calendar Year" means any twelve (12) month period beginning on January 1 and ending on the next subsequent December 31.
- 1.20. "<u>Capex Costs</u>" means any capital expenditure costs associated with (a) the Research and Development Program or (b) the build-out, establishment, construction, expansion or investment in any Manufacturing facilities.

1.21. "Change of Control" means, with respect to a Party (a) the acquisition of beneficial ownership, directly or indirectly, by any Person (other than such Party or an Affiliate of such Party, and other than by virtue of obtaining irrevocable proxies) of securities or other voting interest of such Party representing of the combined voting power of such Party's then outstanding securities or other voting interests, (b) any merger, reorganization, consolidation or business combination involving such Party with a Third Party that results in the holders of beneficial ownership (other than by virtue of obtaining irrevocable proxies) of the voting securities or other voting interests of such Party (or, if applicable, the ultimate parent of such Party) immediately prior to such merger, reorganization, consolidation or business combination ceasing to hold beneficial ownership of at least 50% of the combined voting power of the surviving entity immediately after such merger, reorganization, consolidation or business combination, (c) any sale, lease, exchange, contribution or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of such Party to which this Agreement relates, other than a sale or disposition of such assets to an Affiliate of such Party or (d) the approval of any plan or proposal for the liquidation or dissolution of such Party (other than in circumstances where such Party is deemed a Debtor pursuant to Section 13.7).

- 1.22. "Clinical Trial" means a human clinical study conducted on sufficient numbers of human subjects that is designed to (a) establish that a pharmaceutical product is reasonably safe for continued testing, (b) investigate the safety and efficacy of the pharmaceutical product for its intended use, and to define warnings, precautions and adverse reactions that may be associated with the pharmaceutical product in the dosage range to be prescribed or (c) support Regulatory Approval of such pharmaceutical product or label expansion of such pharmaceutical product. Without limiting the foregoing, Clinical Trial includes any Phase I Clinical Trial, Phase III Clinical Trial or other expedited clinical trial conducted by or on behalf of one or both Parties in connection with this Agreement.
- 1.23. "Combination Product" means a product comprising a Candidate or Product in combination with one or more other therapeutically active ingredients (which includes any prophylactic activity) that are co-formulated as part of the same dosage form or packaged and administered to patient together. For the avoidance of doubt, adjuvants, including molecular adjuvants, are not considered therapeutically active ingredients for the purposes of this definition regardless of whether or not such adjuvant is packaged together with a Candidate or Product but in a separate container.
- 1.24. "Commercialization Agreement" means the definitive agreement pursuant to which (i) Pfizer shall be licensed to Commercialize the Product on the Commercialization Terms and (ii) BioNTech shall retain and have rights to Commercialize the Product in the BioNTech Commercialization Territory; such agreement to be entered into between the Parties in accordance with the provisions of Section 4 and Schedule 4.1.
- 1.25. "Commercialize" or "Commercializing" means to market, promote, distribute, offer for sale, sell, have sold, import, have imported, export, have exported or otherwise commercialize a compound or product. When used as a noun, "Commercialization" and "Commercialized" means any and all activities involved in Commercializing.
- 1.26. "Commercially Reasonable Efforts" means, with respect to the efforts to be expended by a Party with respect to any objective, those reasonable, good faith efforts to accomplish such objective as such Party would normally use to accomplish a similar objective under similar circumstances, in particular taking into account the then-current urgency of the COVID-19 crisis. With respect to any efforts relating to the Development, Regulatory Approval or Commercialization of a Candidate or Product by a Party, generally or with respect to any particular country in the Territory, a Party will be deemed to have exercised Commercially Reasonable Efforts if such Party has exercised those efforts normally used by such Party having regard to the circumstances, in the relevant country, with respect to a compound or protein, product

or product candidate, as applicable (a) of similar modality Controlled by such Party, (b) to which such Party has similar rights, (c) which is of similar market potential in such country, and (d) which is at a similar stage in its development or product life cycle, as any Candidate or Product, in each case, taking into account all Relevant Factors in effect at the time such efforts are to be expended. Further, to the extent that the performance of a Party's obligations hereunder is adversely affected by the other Party's failure to perform its obligations hereunder, the impact of such performance failure will be taken into account in determining whether such Party has used its Commercially Reasonable Efforts to perform any such affected obligations.

- 1.27. "Compassionate Use Purposes" means, with respect to the Product, providing Product under compassionate or emergency use or expanded access programs, including pursuant to an emergency use authorization granted by a Governmental Authority or Regulatory Authority, or in jurisdictions or to vulnerable populations experiencing emergency pandemic, or crisis epidemic, coronavirus conditions.
- 1.28. "Competitive Product" means a pharmaceutical product that incorporates an immunogenic composition comprising RNA in the Field that is intended to be, has been, or is being Exploited by a Third Party. For avoidance of doubt, Competitive Product does not include Product (a) Commercialized by or on behalf of BioNTech in the BioNTech Commercialization Territory pursuant to this Agreement or the Commercialization Agreement, as applicable; or (b) Commercialized outside of the Territory in accordance with the terms of the Fosun Agreement.
- 1.29. "Compliance" means the adherence by the Parties in all material respects to all applicable Laws and Party Specific Regulations, in each case with respect to the activities to be conducted under this Agreement.
- 1.30. "Confidential Information" means, with respect to each Party, all Know-How or other information, including proprietary information and materials (whether or not patentable) regarding or embodying such Party's or its Representatives' technology, products, business information or objectives, that is communicated by or on behalf of the Disclosing Party to the Receiving Party or its permitted recipients, on or after the Effective Date, but only to the extent that: (a) such Know-How or other information in written form is marked in writing as "confidential" at the time of disclosure, (b) such Know-How or other information disclosed orally or in non-tangible form is identified by the Disclosing Party as "confidential" at the time of disclosure or within 30 days thereafter, or (c) such Know-How or other information (regardless of the form of disclosure) is disclosed in circumstances of confidence or would be understood by the Parties, exercising reasonable business judgment, to be confidential. Confidential Information does not include any Know-How or other information to the extent the Receiving Party can demonstrate by competent proof that such Know-How or other information (a) was already known by the Receiving Party (other than under an obligation of confidentiality to the Disclosing Party) at the time of disclosure by or on behalf of the Disclosing Party, (b) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the Receiving Party, (c) became generally available to the public or otherwise part of the public domain after its disclosure to the Receiving Party, other than through any act or omission of the Receiving Party in breach of its obligations under this Agreement. (d) was disclosed to the Receiving Party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the Disclosing Party not to disclose such information to the Receiving Party or (e) was independently discovered or developed by or on behalf of the Receiving Party without the use of any Confidential Information belonging to the Disclosing Party. The terms and conditions of this Agreement will be considered Confidential Information of both Parties. Joint Know-How shall be deemed Confidential Information of either Party and either Party shall be deemed the Receiving Party in respect of Joint Know-How.

- 1.31. "Control" or "Controlled" means with respect to any Intellectual Property Right or material (including any Patent Right, Know-How or other data, information or material), the ability (whether by sole, joint or other ownership interest, license or otherwise, other than pursuant to this Agreement) to, without violating the terms of any agreement with a Third Party, grant a license or sublicense or provide access or other right in as provided in this Agreement, to or under such Intellectual Property Right or material.
  - 1.32. "Conversion Costs" means [\*\*\*].
- 1.33. "Copyright" means any copyright which pertains to the promotional materials and literature utilized by Pfizer in connection with the Commercialization of Products in the Territory.
- 1.34. "Cover", "Covered" or "Covering" means, with respect to (a) a given Candidate or Product and Patent Right, that a valid claim of such Patent Right would, absent a license thereunder or ownership thereof, be infringed by the making, sale, offer for sale or importation of such Candidate or Product and (b) a given Candidate or Product and Know-How, that such Know-How would, absent a license thereunder or ownership thereof, be misappropriated or misused by the use or making of such Candidate or Product.
- 1.35. "Current Good Manufacturing Practices" or "cGMP" means all applicable standards and applicable Laws relating to manufacturing practices for products (including ingredients, testing, storage, handling, intermediates) promulgated by the U.S. Food and Drug Administration and any other governmental authority (including, European Union or member state level and Japan), including, but not limited to, standards in the form of applicable laws, guidelines, advisory opinions and compliance policy guides, and current interpretations of the applicable authority or agency thereof (as applicable to pharmaceutical and biological products and ingredients), as the same may be updated, supplemented or amended from time to time, in each case of those jurisdictions in which the products are Manufactured.
- 1.36. "<u>Current Licenses</u>" means any agreement (a) that BioNTech or its Affiliates has entered into prior to the Effective Date with a Third Party and (b) pursuant to which BioNTech or its Affiliates are (i) granted rights to any BioNTech Technology as of the Effective Date or (ii) granted a license or otherwise transferred any right to practice under any Patent Rights or Know-How, in each case that relate to the Candidates or Products or activities under this Agreement. BioNTech's Current Licenses are disclosed on Schedule 1.36.
  - 1.37. "Current Licensor" means any Third Party that is a party to a Current License.

1.38. "<u>Delivery Technology</u>" means the BioNTech Know-How applicable to formulating nucleic acids to enable the delivery of such nucleic acids to target cells *in vivo*. For clarity, Delivery Technology does not include [\*\*\*].

- 1.39. "Developed" or "Developing" means to discover, research or otherwise develop or improve a process, compound or product, including planning and conducting non-clinical and clinical research and development activities prior to Regulatory Approval or any research or development conducted after receipt of Regulatory Approval, including those required by any Regulatory Authority to maintain any Regulatory Approval. When used as a noun, "Development" means any and all activities involved in Developing.
- 1.40. "Developing Countries Territory." means, to the extent BioNTech or any of its Affiliates receive Third Party funding from [\*\*\*] to fund Development or Manufacturing of the Candidates or Products pursuant to this Agreement, those countries listed in Schedule 1.40 which are also defined in the relevant funding documents as "Developing Countries"; provided that if prior to the execution of such funding documents, the price of any medicinal product (including the Product) in any country within Schedule 1.40 is made relevant as a reference price for the sale of the Product in any country outside of the countries listed within Schedule 1.40, then such country shall be automatically removed as a country within Schedule 1.40, unless otherwise mutually agreed in writing by the Parties.
- 1.41. "Development Budget" means the budget to be agreed and updated by the JSC for all activities, costs and expenses that are to be funded as Shared Development Costs, and which initial budget for the first [\*\*\*] of this Agreement is to be agreed between the Parties in accordance with Section 2.2.
  - 1.42. "EMA" means the European Medicines Agency or any successor agency thereto.
- 1.43. "Expedited Trial Pathway" means a Clinical Trial protocol or pathway recognized or authorized by any Regulatory Authority for the emergency or expedited approval of medicines for human use, as opposed to a traditional Clinical Trial.
- 1.44. "Exploit" means to Develop, Manufacture, Commercialize, use or otherwise exploit. Cognates of the word "Exploit" will have correlative meanings.
- 1.45. "FD&C Act" means the United States Federal Food, Drug, and Cosmetic Act, as amended, and the rules and regulations promulgated thereunder.
  - 1.46. "FDA" means the United States Food and Drug Administration or any successor agency thereto.
- 1.47. "Field" means immunogenic compositions comprising RNA encoding a SARS-CoV-2 polypeptide or fragment thereof, including naturally occurring or engineered variants thereof, for prophylaxis against COVID-19 in humans.
- 1.48. "Flu Collaboration License" means the separate research collaboration and license agreement between, inter alia, the Parties for the development and commercialization of immunogenic compositions comprising RNA that encodes at least one Antigen for prophylaxis against influenza in humans dated July 20, 2018, as amended.

- 1.49. "Fosun" means Shanghai Fosun Pharmaceutical Industrial Development, Co. Ltd, a company incorporated in China, and having a place of business at No. 1289 Yishan Road, Shanghai, China.
  - 1.50. "Fosun Agreement" means the Development and License Agreement concluded between BioNTech and Fosun on March 13, 2020.
- 1.51. "<u>Funding Event</u>" means (a) the BioNTech Deferred Development Costs have been repaid in full (other than solely through the payment of the Regulatory Approval Milestone in the event that the then-current Development Budget contemplates the expenditure of additional funds for the continued Development of the Product); (b) a Change of Control of BioNTech; or (c) the date notice is served by either Party to terminate this Agreement in accordance with Section 13.
- 1.52. "<u>Future License</u>" means an agreement approved by the Parties (a) that BioNTech or its Affiliates enters into on or after the Effective Date with a Third Party or (b) that Pfizer or its Affiliates enters into on or after the Effective Date; which in the case of (a) and (b) grants a license (sublicensable in accordance with the licenses granted hereunder) to that Third Party's ("<u>Future Licensor</u>") Patent Rights for the Commercialization of the Candidates or Products by BioNTech and Pfizer in the Field, and which license is applicable to the Candidates or Products and is necessary to avoid, overcome or settle any potential or actual infringement of those Third Party Patent Rights.
  - 1.53. "GAAP" means United States generally accepted accounting principles, consistently applied.
  - 1.54. "GEIA" means the German Employee Invention Act.
- 1.55. "<u>GEIA Technology</u>" means all BioNTech Technology and Research and Development Program Technology invented by employees of BioNTech or its Affiliates (solely or jointly with employees of Third Parties) under the jurisdiction of GEIA.
- 1.56. "Government" or "Governmental Authority" is to be broadly interpreted and includes (a) any national, federal, state, local, regional or foreign government, or level, branch, or subdivision thereof; (b) any multinational or public international organization or authority; (c) any ministry, department, bureau, division, authority, agency, commission, or body entitled to exercise any administrative, executive, judicial, legislative, police, regulatory, or taxing authority or power; (d) any court, tribunal, or governmental arbitrator or arbitral body; (e) any government-owned or controlled institution or entity; (f) any enterprise or instrumentality performing a governmental function; and (g) any political party.
- 1.57. "Government Official", to be broadly interpreted, means (a) any elected or appointed government official (e.g., a member of a ministry of health), (b) any employee or person acting for or on behalf of a government official, Governmental Authority, or other enterprise performing a governmental function, (c) any political party, candidate for public office, officer, employee, or person acting for or on behalf of a political party or candidate for public office, (d) any member of a military or a royal or ruling family, and (e) any employee or person acting for or on behalf of a public international organization (e.g., the United Nations). For clarity, healthcare providers employed by Government-owned or -controlled hospitals, or a person serving on a healthcare committee that advises a Government, will be considered Government Officials.
  - 1.58. "Gross Profit" means [\*\*\*].

- 1.59. "GxP" means, collectively, all relevant good practice quality guidelines and regulations, encompassing such internationally recognized standards as Good Manufacturing Practice (GMP), Good Clinical Practice (GCP), Good Laboratory Practice (GLP), Good Distribution Practice (GDP), and Good Review Practice (GRP).
- 1.60. "HCP" or "Healthcare Professional" includes any physician, nurse, pharmacist, or other person who may administer, prescribe, purchase or recommend pharmaceutical products or other healthcare products.
- 1.61. "Human Material" means any biological samples of one or more Subjects collected, provided or utilized by BioNTech during the Research and Development Plan pursuant to this Agreement.
- 1.62. "<u>ICF</u>" means an informed consent form that was approved by a qualified Institutional Review Board or Independent Ethics Committee ("<u>IRB / IEC</u>") in accordance with all applicable Laws and recognized international standards for the protection of human research subjects.
- 1.63. "IFRS" means International Financing Reporting Standards, as in effect from time to time, together with its pronouncements thereon from time to time, consistently applied.
- 1.64. "IND" means an Investigational New Drug Application submitted under the FD&C Act, or an analogous application or submission with any analogous agency or Regulatory Authority outside of the United States for the purposes of obtaining permission to conduct Clinical Trials.
- 1.65. "Intellectual Property Rights" means any and all (a) Patent Rights, (b) proprietary rights in Know-How, including trade secret rights, (c) proprietary rights associated with works of authorship and software, including copyrights, moral rights, and copyrightable works, and all applications, registrations, and renewals relating thereto, and derivative works thereof, (d) other forms of proprietary or intellectual property rights however denominated throughout the world, other than trademarks, service marks, trade names, domain names and other indicators of origin.
  - 1.66. "Joint Steering Committee" or "JSC" means the steering committee described in Section 7.3.1.
- 1.67. "Joint Know-How" means any Research and Development Program Know-How, whether or not patentable, made or created jointly by (a) BioNTech or any of its Representatives and (b) Pfizer or any of its Representatives, which does not constitute BioNTech Know-How, Product Know-How or Pfizer Know-How.
- 1.68. "Joint Patent Rights" means Research and Development Program Patent Rights that claim or disclose any invention included in Joint Know-How.
  - 1.69. "Joint Technology" means the Joint Know-How and the Joint Patent Rights.
- 1.70. "Know-How" means any proprietary invention, discovery, development, data, information, process, method, technique, technology, result, cell line, cell, antibody or other protein, compound, probe, nucleic acid, (including RNAi) or other sequences or other know-how, whether or not patentable, and any physical embodiments of any of the foregoing or any information contained in any of the foregoing.

- 1.71. "Law" means any law, statute, rule, regulation, order, judgment or ordinance of any Governmental Authority, including all applicable Anti-Corruption Laws, accounting and recordkeeping laws, and laws relating to interactions with HCPs and Government Officials. For the avoidance of doubt, any specific references to any applicable Law or any portion thereof shall be deemed to include all then-current amendments thereto or any replacement or successor law, statute, standard, ordinance, code, rule, regulation, resolution, promulgation, order, writ, judgment, injunction, decree, stipulation, ruling or determination thereto.
- 1.72. "MA Holder" means, on a country by country basis within the Territory, the Party (or its Affiliate or designee under its control) that holds the Regulatory Approval required for the Commercialization of the Product in such country.
  - 1.73. "Major EU Market Country" means any of France, Germany, Italy, Spain or the United Kingdom.
  - 1.74. "Major Market Country" means the Major EU Market Countries, the United States and Japan.
- 1.75. "Manufacture" or "Manufacturing" means to make, produce, manufacture, process, fill, finish, package, label, perform quality assurance testing, release, ship or store, and for the purposes of further Manufacturing, distribute, import or export, a compound or product or any component thereof. When used as a noun, "Manufacture", "Manufactured" or "Manufacturing" means any and all activities involved in Manufacturing a compound or protein, device or product or any component thereof.
  - 1.76. "Manufacturing Costs" means [\*\*\*].
- 1.77. "Manufacturing Plan" means the plan for establishing Manufacturing and the Manufacturing facilities, as well as the Manufacturing obligations of each Party, in respect of the Candidates and Products, as such plan may be updated and modified from time to time with the unanimous consent of the JSC, and which initial plan for the first [\*\*\*] of this Agreement is to be agreed between the Parties in accordance with Section 2.2.

- 1.78. "Manufacturing Variances" means [\*\*\*].
- 1.79. "Materials" means the Pfizer Materials or the BioNTech Materials, as the context requires.
- 1.80. "Modified RNA" means an mRNA that has been modified by the incorporation of one or more modified nucleosides, excluding the 5' CAP.
- 1.81. "Modified RNA Technology" means the BioNTech Know-How applicable to Modified RNA. For clarity, Modified RNA Technology does not include [\*\*\*].
  - 1.82. "Mutation" means [\*\*\*].
  - 1.83. "Net Sales" means with respect to a Product [\*\*\*].

[\*\*\*]

11

[\*\*\*]

- 1.84. "Patent Rights" means any and all (a) issued patents, (b) pending patent applications, including all provisional applications, non-provisional applications, substitutions, continuations, continuations-in-part, divisions and renewals, applications sharing a priority claim and all patents granted thereon, (c) patents-of-addition, reissues, reexaminations and extensions or restorations by existing or future extension or restoration mechanisms, including patent term adjustments, patent term extensions, supplementary protection certificates or the equivalent thereof, (d) inventor's certificates, (e) other forms of government-issued rights substantially similar to any of the foregoing and (f) United States and foreign counterparts of any of the foregoing.
- 1.85. "Party Specific Regulations" means all non-monetary judgments, decrees, orders or similar decisions issued by any Governmental Authority specific to a Party, and all consent decrees, corporate integrity agreements, or other agreements or undertakings of any kind by a Party with any Governmental Authority, in each case as the same may be in effect from time to time and applicable to a Party's activities contemplated by this Agreement.
- 1.86. "Person" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision or department or agency of a government.
- 1.87. "Personal Data" means any information relating to an identified or identifiable natural person as further specified in Art. 4 no. 1 of the GDPR.
- 1.88. "Pfizer Commercialization Territory" means the Territory, except for countries within the BioNTech Commercialization Territory from time to time.
- 1.89. "<u>Pfizer Exit Countries</u>" means, on a country by country basis, those countries out of the United Arab Emirates and South-East Asia where Pfizer elects, pursuant to the Commercialization Terms or Commercialization Agreement, not to Commercialize the Product pursuant to any Pfizer Exit Option.
- 1.90. "Pfizer Improvements" means any Research and Development Program Technology, regardless of inventorship, that is a modification or improvement to the Pfizer Technology and (a) would also be applicable to one or more candidates or products in addition to or other than the Candidates or Products, (b) is not predominantly directed to the Candidates or Products or the RNA Technology or RNA Process Technology and (c) could have reasonably been developed without the aid, use or application of BioNTech Materials, BioNTech Know-How or BioNTech's Confidential Information or any improvements or enhancements thereto.
  - 1.91. "Pfizer Know-How" means [\*\*\*]

[\*\*\*]

- 1.92. "Pfizer Patent Right" means any Patent Right (other than Patent Rights jointly owned by BioNTech and Pfizer pursuant to Section 10.2) in any form and whether pending or issued that (a) is Controlled by Pfizer or any of its Affiliates on the Effective Date or that comes into the Control of Pfizer or any of its Affiliates during the Term (other than, in either case, through the grant of a license by BioNTech), and (b) claims any Pfizer Know-How.
- 1.93. "<u>Pfizer Quarter</u>" means each of the four (4) thirteen (13) week periods (a) with respect to the United States, commencing on January 1 of any Pfizer Year and (b) with respect to any country in the Territory other than the United States, commencing on December 1 of any Pfizer Year. Wherever non-country specific timelines are specified in this Agreement in reference to a Pfizer Quarter, such reference shall be deemed to be made to the Pfizer Year applicable in the United States.
  - 1.94. "Pfizer Technology" means the Pfizer Patent Rights, Pfizer Materials and Pfizer Know-How.
- 1.95. "<u>Pfizer Year</u>" means the twelve (12) month fiscal periods observed by Pfizer (a) commencing on January 1 with respect to the USA; and (b) commencing on December 1 with respect to any country in the Territory other than the USA.
- 1.96. "Phase I Clinical Trial" means a Clinical Trial that generally provides for the first introduction into humans of a pharmaceutical product with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical pharmacology of such product, in a manner that is generally consistent with 21 CFR § 312.21(a), as amended (or its successor regulation), provided, however, a Phase I Clinical Trial does not include any study generally characterized by the FDA as an "exploratory IND study" in CDER's Guidance for Industry, Investigators, and Reviewers Exploratory IND Studies, January 2006, irrespective of whether or not such study is actually performed in the United States or under an IND. A so-called Phase I/II Clinical Trial shall be deemed to be a Phase I Clinical Trial unless such trial, when completed, allows Pfizer to proceed directly to a Phase III Clinical Trial.
- 1.97. "Phase II Clinical Trial" means a Clinical Trial, the principal purpose of which is to make a preliminary determination as to whether a pharmaceutical product is safe for it intended use and to obtain sufficient information about such product's efficacy, in a manner that is generally consistent with 21 CFR § 312.21(b), as amended (or its successor regulation), to permit the design of further Clinical Trials.
- 1.98. "Phase III Clinical Trial" means a pivotal Clinical Trial with a defined dose or a set of defined doses of a pharmaceutical product designed to ascertain efficacy and safety of such product, in a manner that is generally consistent with 21 CFR § 312.21(c), as amended (or its successor regulation), for the purpose of enabling the preparation and submission of an NDA.
- 1.99. "<u>Price Approval</u>" means, in any country where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of such reimbursement authorization or pricing approval or determination (as the case may be).
  - 1.100. "Product" means any pharmaceutical product in a formulation suitable for administration to humans that [\*\*\*].

1.101. "<u>Product Know-How</u>" means any Research and Development Program Know-How that is predominantly directed to the composition of matter, treatment with, or the delivery of, Manufacture, form, formulation, or use of a Candidate or Product in the Field and is not generally applicable to compositions or products in addition to or other than a Candidate or Product.

- 1.102. "Product Materials" means all raw materials (including, without limitation, active pharmaceutical ingredients and excipients, vectors, plasmids and mRNA), labeling or packaging materials and components needed for the Manufacture and supply of a given Candidate or Product.
  - 1.103. "Product Patent Rights" means any Patent Right that claims any invention included in Product Know-How.
  - 1.104. "Product Technology" means the Product Know-How and Product Patent Rights.
- 1.105. "Public Health Service Act" or "PHS Act" means the United States Public Health Service Act (42 U.S.C. 201 *et seq*), as amended from time to time (including any rules and regulations promulgated thereunder) or any subsequent or superseding law, statute or regulation.
  - 1.106. "RNA" means ribonucleic acid.
  - 1.107. "RNA Process Technology" means the BioNTech Know-How used to Manufacture Candidates or Products.
- 1.108. "RNA Technology" means Replicon Technology, Unmodified RNA Technology, Modified RNA Technology and Delivery Technology that is, in each case, used by BioNTech in the Research and Development Program
- 1.109. "Regulatory Approval" means all technical, medical and scientific licenses, registrations, authorizations and approvals (including approvals of INDs, NDAs, BLAs, supplements and amendments, pre- and post- approvals and labeling approvals) of any Regulatory Authority, necessary or useful for the use, Development, Manufacture, and Commercialization of a pharmaceutical or biopharmaceutical product in a regulatory jurisdiction, including commercially reasonable Price Approvals and commercially reasonable Third Party reimbursement approvals.
- 1.110. "Regulatory Authority" means, with respect to a country in the Territory, any national (e.g., the FDA), supra-national (e.g., the European Commission, the Council of the European Union, or the European Medicines Agency), regional, state or local regulatory agency, department, bureau, commission, council or other Governmental Authority involved in the granting of a Regulatory Approval or, to the extent required in such country, Price Approval, for pharmaceutical products in such country.
- 1.111. "Relevant Factors" means all relevant factors that may affect the Development, Regulatory Approval or Commercialization of a Candidate or Product, including (as applicable): [\*\*\*]

[\*\*\*]

- 1.112. "Replicon" means an RNA molecule(s) that comprises a gene encoding a polymerase that can, when the RNA molecule(s) is introduced into a cell, replicate the same or a different RNA molecule(s), that also comprises a gene or a sequence encoding at least one non-human polypeptide that is capable of eliciting an immune response (an "Antigen") and does not comprise the full set of genes required to make an infectious virus and is capable, when introduced into a cell, of expressing detectable levels of the encoded Antigen.
  - 1.113. "Replicon Product" means any Product comprising Replicon Technology.
- 1.114. "Replicon Technology" means the BioNTech Know-How applicable to Replicons. For clarity, Replicon Technology does not include Modified RNA Technology, Unmodified RNA Technology or Delivery Technology.
- 1.115. "Representatives" means (a) with respect to Pfizer, Pfizer, its Affiliates, its Sublicensees and subcontractors, and each of their respective officers, directors, employees, consultants, contractors and agents and (b) with respect to BioNTech, BioNTech, its Affiliates, its Sublicensees and subcontractors, and each of their respective officers, directors, employees, consultants, contractors and agents.
- 1.116. "Research and Development Plan" means the research and development plan to define the Development activities pursuant to the collaboration anticipated under this Agreement, which plan is initially to be agreed between the Parties in accordance with Section 2.2 for the first [\*\*\*] of activities under this Agreement, and as may be amended from time to time pursuant to Section 6.1.
- 1.117. "Research and Development Program" means the program of collaboration between the Parties to Develop and Manufacture Candidates and Products in the Field, including the activities described in the Research and Development Plan.
- 1.118. "Research and Development Program Know-How" means any and all Know-How, Candidates and Products, whether or not patentable, made or created solely by or on behalf of either Party or its Representatives in the conduct of activities under the Research and Development Plan or made jointly by or on behalf of (a) BioNTech or its Representatives and (b) Pfizer or its Representatives in the conduct of activities under the Research and Development Plan.
- 1.119. "Research and Development Program Patent Rights" means any and all Patent Rights claiming or disclosing any invention included in Research and Development Program Know-How.
- 1.120. "Research and Development Program Technology" means the Research and Development Program Patent Rights and Research and Development Program Know-How.
- 1.121. "Residual Knowledge" means knowledge, techniques, experience and Know-How that (a) are, or are based on, any Confidential Information of the Disclosing Party and (b) are retained in the unaided memory of any authorized Representative of the Receiving Party after having access to such Confidential Information. An individual's memory will be considered to be unaided if the individual has not intentionally memorized the Confidential Information for the purpose of retaining and subsequently using or disclosing it.

- 1.122. "Shared Development Cost" means [\*\*\*].
- 1.123. "Signing Date" means April 9, 2020.
- 1.124. "South-East Asia" means [\*\*\*].
- 1.125. "Subject" means the individual donor of the Human Material or of the original tissues from which the Human Material was derived.
- 1.126. "Sublicensee" means any Person to whom a Party grants or has granted, directly or indirectly, a license or sublicense of any of the same Intellectual Property Rights licensed to such Party by the other Party under this Agreement in accordance with Section 3.6. For the avoidance of doubt, distributors used by a Party to Commercialize Product in a country or region shall not be regarded a Sublicensees.
- 1.127. "Tax" means all corporation tax, advance corporation tax, income tax, capital gains tax, value added tax, customs and other import duties, inheritance tax, purchase tax, capital duties, social insurance contributions, foreign taxation and duties and all penalties, charges and interest relating to any of the foregoing or resulting from a failure to comply with the provisions of any enactment relating to any of the foregoing.
  - 1.128. "Territory" means worldwide, except for the People's Republic of China (including Hong Kong SAR and Macau SAR) and Taiwan.
  - 1.129. "Third Party" means any Person other than Pfizer, BioNTech or their respective Affiliates.
- 1.130. "Third Party License Payment" shall mean a payment due to a Third Party Licensor or Future Licensor pursuant to a Current License or Future License, as applicable, that is [\*\*\*]. For the avoidance of doubt, [\*\*\*]

[\*\*\*].

1.131. "<u>Trademark</u>" means any trademark, trade name, service mark, service name, brand, domain name, trade dress, logo, slogan or other indicia of origin or ownership, including the goodwill and activities associated with each of the foregoing.

- 1.132. "<u>Transfer Price</u>" shall mean [\*\*\*] of the Manufacturing Cost of such Candidate or Product, subject to any different percentage between [\*\*\*] as determined by the JCC, to be applied for Products to be supplied to the Developing Countries Territory or to take account of any supply requirements of any Governmental Authority within the Territory or pursuant to the terms and conditions of any funding agreement with a Third Party Funder.
  - 1.133. "Unmodified RNA" means an mRNA that [\*\*\*].
- 1.134. "<u>Unmodified RNA Technology</u>" means the BioNTech Know-How applicable to Unmodified RNA. For clarity, Unmodified RNA Technology does not include Replicon Technology, Modified RNA Technology or Delivery Technology.
- 1.135. "<u>UPC Agreement</u>" means the treaty Agreement on the Unified Patent Court signed 19 February 2013, as may be amended or superseded from time.
  - 1.136. The following terms are defined in the section of this Agreement listed opposite each term:

| Defined Term                        | Section in Agreement |
|-------------------------------------|----------------------|
| Acquirer                            | 14.2.2               |
| Acquisition Program                 | 14.1.1               |
| Additional Patent Jurisdictions     | 10.3.1.1             |
| Affected Party                      | 14.1                 |
| Agreement                           | Preamble             |
| Alliance Managers                   | 7.1                  |
| Audited Party                       | 5.10                 |
| Auditing Party                      | 5.10                 |
| BARDA                               | 5.5.1                |
| BioNTech                            | Preamble             |
| BioNTech Deferred Development Costs | 5.4.2                |
| BioNTech Enforcement Patent Rights  | 10.4.2               |
| BioNTech Indemnified Party          | 15.2                 |
| BioNTech JSC Members                | 7.3.1                |
| BioNTech Prosecution Patent Rights  | 10.3.1.1             |
| Capex Funding                       | 5.5.1                |
|                                     |                      |

| Defined Term<br>Change of Control Party                 | Section in Agreement<br>11.7 |
|---|------------------------------|
| Commercialization Terms                                 | 4.1                          |
| Consequential Damages                                   | 15.1                         |
| Consequential Damages  Competitive Product Infringement | 10.4.3                       |
| Continuing Party  | 10.3.2                       |
| Cure Plan   | 3.7.3                        |
| Debtor  | 13.7.1                       |
|   |                              |
| Declining Party   | 10.3.2                       |
| Disputed Matter   | 7.3.5                        |
| Disclosing Party  | 11.1                         |
| Enforcement Action                                      | 10.4.1                       |
| Effective Date  | Preamble                     |
| Equity Investment                                       | 5.2                          |
| Force Majeure   | 16.3                         |
| FTO Action  | 10.7.1                       |
| Global Trade Control Laws                               | 16.10                        |
| Impf Group  | 1.1                          |
| Incremental Withholding Tax                             | 5.7.1                        |
| Indemnified Party                                       | 15.4.1                       |
| Indemnifying Party                                      | 15.4.1                       |
| Infringement Claim                                      | 10.8                         |
| IRB / IEC   | 1.62                         |
| JSC Chair   | 7.3.2                        |
| Key Patent Jurisdictions                                | 10.3.1.1                     |
| Lead Development Party                                  | 9.1.1                        |
| Lead Party  | 5.5.1                        |
| Liabilities   | 15.2                         |
| Licensed Activities                                     | 10.7.1                       |
| Litigation Conditions                                   | 15.4.2                       |
| Marketing Authorization Applications                    | 9.2.2                        |
| Notice of Dispute                                       | 16.11.1                      |
| Party or Parties  | Preamble                     |
| Patent Committee  | 10.1                         |
| Patent Term Extension                                   | 10.3.4                       |
| Pfizer  | Preamble                     |
| Pfizer Indemnified Party                                | 15.3                         |
| Pfizer JSC Members                                      | 7.3.1                        |
| Pfizer Materials  | 7.4.1                        |
| Pharmacovigilance Agreement                             | 9.2.7                        |
| Prosecution Proceedings                                 | 10.3.5                       |
| Policies  | 12.3.20                      |
| Program Director and Program Directors                  | 7.2                          |
| Reference Product Sponsor                               | 10.4.6.2                     |
| Receiving Party   | 11.1                         |
| Regulatory Approval Milestone                           | 5.3                          |
| Restricted Market                                       | 16.10.1                      |
| Restricted Parties                                      | 16.10.2                      |
| Restricted Party List                                   | 16.10.2                      |
| Review Period   | 11.5.2                       |
| ROW   | 9.1.1                        |
| 1011  | 5.1.1                        |

| Defined Term         | Section in Agreement |  |
|----------------------|----------------------|--|
| Term                 | 13.2                 |  |
| Third Party Claim    | 15.4.1               |  |
| Third Party Funder   | 5.5.1                |  |
| Third Party Licensor | 1.12                 |  |
| Upfront Payment      | 5.1                  |  |
| VAT                  | 5.7.2                |  |
| Withholding Tax      | 5.7.1                |  |

#### 2. SCOPE OF COLLABORATION

- 2.1. <u>Scope of Collaboration</u>. Subject to the terms and conditions of this Agreement, the Parties shall (a) cooperate in good faith to conduct their respective activities under the Agreement; and (b) establish one or more committees as described in Article 7 of this Agreement to oversee and coordinate the Development, Manufacture and Commercialization of Candidates and Products in the Territory.
- 2.2. <u>Initial Research and Development Plan and Manufacturing Plan</u>. Commencing on the Signing Date each Party shall, acting reasonably and in good faith, negotiate and seek to agree binding versions of the Research and Development Plan, Development Budget and the Manufacturing Plan, which shall be agreed by [\*\*\*]. The Research and Development Plan to be agreed shall reflect the requirements described in Sections 6.1 and 6.2.

#### 3. LICENSES.

#### 3.1. Research Licenses.

- 3.1.1. **Research License from BioNTech to Pfizer**. Subject to the terms and conditions of this Agreement, effective as of the Effective Date, BioNTech on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to Pfizer a sole license under the BioNTech Technology to use, have used, Develop, have Developed, Manufacture, and have Manufactured [\*\*\*] Candidates and Products within the Territory [\*\*\*].
- 3.1.2. **Research License from Pfizer to BioNTech**. Subject to the terms and conditions of this Agreement, effective as of the Effective Date, Pfizer on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to BioNTech a sole license under the Pfizer Technology to use, have used, Develop, have Developed, Manufacture, and have Manufactured [\*\*\*] (a) Candidates and Products and within the Territory [\*\*\*], and (b) Candidates or products identical to any Product within the Field for their Development (but not Manufacture) outside the Territory by or on behalf of BioNTech (including by Fosun or its Affiliates) pursuant to the Fosun Agreement. With respect to (b) above, such license shall (i) exclude and prohibit the disclosure and license by BioNTech of Pfizer Technology used for Manufacture or formulation of the Candidate or Products, other than to the extent necessary for Fosun or its Affiliates to undertake fill/finish of a product identical to any Product in China or to comply with information requirements of the China National Medical Products Administration relating to such product required under applicable Law; and (ii) automatically terminate on the termination or expiration of the Fosun Agreement and will, unless earlier terminated, survive the termination or expiration of this Agreement in those circumstances described in Section 13.

3.1.3. **Scope of Research Licenses**. Each of the licenses granted under Section 3.1.1 and 3.1.2 is (a) a sole license, such that the applicable licensor Party shall not grant a Third Party (unless it is necessary for the Third Party undertaking a fee-for-service Development or Manufacturing activity on its behalf pursuant to this Agreement) a license under the same Intellectual Property Rights for any Exploitation within the Field and within the Territory in respect of any product, whether or not it is a Candidate or Product; (b) royalty-free; (c) sub-licensable in accordance with and subject to Section 3.6; (d) non-assignable, in whole or part, other than where a Party's benefit under this Agreement may be assigned pursuant to Section 16.1; and (e) granted subject to the provisions of this Agreement, and for the duration of the Term or until termination or expiry of this Agreement if earlier, unless otherwise specified herein.

# 3.2. Licenses for Commercial Manufacturing.

- 3.2.1. **License from BioNTech to Pfizer.** Subject to the terms and conditions of this Agreement, effective as of the Effective Date, BioNTech on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to Pfizer a non-exclusive license under the BioNTech Technology to Manufacture and have Manufactured Candidates and Products for use within the Territory and, subject to Section 3.4, Commercialization within the Territory in any indication.
- 3.2.2. License from Pfizer to BioNTech. Subject to the terms and conditions of this Agreement, effective as of the Effective Date, Pfizer on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to BioNTech a non-exclusive license under the Pfizer Technology to Manufacture and have Manufactured (a) Candidates and Products for Commercialization within the Territory in accordance with Section 3.4 in any indication and (b) Candidates and products identical to any Product within the Field for their use and Commercialization outside the Territory by BioNTech or Fosun and its Affiliates pursuant to the Fosun Agreement. With respect to (b) above, such license shall (i) exclude and prohibit the disclosure and license by BioNTech of Pfizer Technology used for Manufacture or formulation of the Candidate or Product, other than to the extent necessary for Fosun or its Affiliates to (x) undertake fill/finish of a product identical to any Product in China or (y) comply with information requirements of the China National Medical Products Administration relating to such product required under applicable Law; and (ii) shall automatically terminate on the termination or expiration of the Fosun Agreement and will, unless earlier terminated, survive the termination or expiration of this Agreement in those circumstances described in Section 13.
- 3.2.3. **Scope of Commercial Manufacturing Licenses**. Each of the licenses granted under Section 3.2.1 and 3.2.2 is (a) royalty-free; (b) sub-licensable in accordance with and subject to Section 3.6; (c) non-assignable, in whole or part, other than where a Party's benefit under this Agreement may be assigned pursuant to Section 16.1; and (d) granted subject to the provisions of this Agreement, and for the duration of the Term or until termination or expiry of this Agreement if earlier, unless otherwise specified herein.

#### 3.3. Regulatory Dossier Licenses.

3.3.1. License from BioNTech to Pfizer. Effective as of the Effective Date, in respect of the Drug Master Files, Regulatory Approvals and Regulatory Documentation (as defined in the Fosun Agreement), BioNTech hereby grants to Pfizer a sole license to rely upon and make reference to such Drug Master Files, Regulatory Approvals and Regulatory Documentation (and the data referenced therein), to use the same in respect of any application for, and maintaining, any Regulatory Approvals (as defined in this Agreement) filed by Pfizer pursuant to this Agreement in respect of Candidates or Products. The license granted under this Section 3.3.1 is (a) royalty-free; (b) sub-licensable in accordance with and subject to Section 3.6; (c) non-assignable, in whole or part, other than where a Party's benefit under this Agreement may be assigned pursuant to Section 16.1; and (d) granted subject to the provisions of this Agreement, and for the duration of the Term or until termination or expiry of this Agreement if earlier, unless otherwise specified herein. BioNTech shall procure disclosure of such Drug Master Files, Regulatory Approvals and Regulatory Documentation upon Pfizer's request. Without limiting any of the foregoing, but subject to Section 3.10, BioNTech shall be permitted to use such Drug Master Files, Regulatory Approvals and Regulatory Documentation (to the extent not comprising Pfizer's Technology or Pfizer's Confidential Information) with respect to any application for or maintenance of any Regulatory Approvals outside the Field.

### 3.4. Commercialization Licenses.

- 3.4.1. **License from BioNTech to Pfizer**. Subject to the terms and conditions of this Agreement, and the terms of Schedule 4.1 until the Parties execute the Commercialization Agreement, BioNTech on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to Pfizer an exclusive (even as to BioNTech) license under the BioNTech Technology to Commercialize and have Commercialized Products within the Pfizer Commercialization Territory in any indication. The foregoing license shall be subject to the terms of the Commercialization Agreement once executed.
- 3.4.2. License from Pfizer to BioNTech. Subject to the terms and conditions of this Agreement, and the terms of Schedule 4.1 until the Parties execute the Commercialization Agreement, Pfizer on behalf of itself and its Affiliates hereby grants (and will procure that its Affiliates grant) to BioNTech a license under the Pfizer Technology to Commercialize and have Commercialized (a) Products within the BioNTech Commercialization Territory in any indication, which license shall be granted on a sole basis; and (b) products identical to any Product within the Field but outside the Territory by BioNTech or by Fosun or its Affiliates pursuant to the Fosun Agreement. With respect to (b) above, such license shall (i) be sole; (ii) royalty-bearing; (iii) exclude and prohibit the disclosure and license by BioNTech of Pfizer Technology used for Manufacture or formulation of any Candidate or Product, other than to the extent necessary for Fosun or its Affiliates to (x) undertake fill/finish of a product identical to any Product in China or (y) comply with information requirements of the China National Medical Products Administration relating to such product required under applicable Law; and (iv) shall automatically terminate on the termination or expiration of the Fosun Agreement and will, unless earlier terminated, survive the termination or expiration of this Agreement in those circumstances described in Section 13.
- 3.4.3. **Scope of Commercialization Licenses**. Each of the licenses granted under Section 3.4.1 and 3.4.2 is (a) sub-licensable in accordance with and subject to Section 3.6; (b) non-assignable, in whole or part, other than where a Party's benefit under this Agreement may be assigned pursuant to Section 16.1; and (c) granted subject to the provisions of this Agreement, the Commercialization Agreement upon its execution, Schedule 4.1 and for the duration of the Term or until termination or expiry of this Agreement if earlier, unless otherwise specified herein. Furthermore, [\*\*\*].

#### 3.4.4. **Financial Provisions for Commercialization**. The license under:

- 3.4.4.1. Section 3.4.1 and 3.4.2(a) is royalty-free but each is subject to the Gross Profit share set out in the Commercialization Terms; and
- 3.4.4.2. Section 3.4.2(b) shall be royalty bearing at a rate of (i) [\*\*\*] percent of net sales of the product(s) sold pursuant to the Fosun Agreement where such product(s) is Covered by any Pfizer Patent Right or any Joint Patent Rights (ii) if, or when, (i) does not apply, then [\*\*\*] percent of net sales of the product(s) sold pursuant to the Fosun Agreement where such product(s) is Covered by any Pfizer Know-How or any Joint Know-How with net sales having the same definition, *mutatis mutandis*, to Net Sales under this Agreement, with sales and royalty reporting every Pfizer Quarter, payments on a Pfizer Quarter basis, and Pfizer having audit rights comparable with those under this Agreement); *provided*, *however*, that (a) during the period in which a generic or biosimilar equivalent to such product(s) is Commercialized in any part of the territory that is the subject of the Fosun Agreement, the royalty under (i) above shall be reduced by [\*\*\*]; or (b) if the gross profit share earned by BioNTech in connection with sale of products under the Fosun Agreement is lower than the royalty amount to be paid to Pfizer hereunder in respect of those same sales, then no royalty shall be payable hereunder for those sales. The foregoing royalty obligations shall commence on the first commercial sale of the product(s) sold pursuant to the Fosun Agreement, and extend (a) with respect to the royalty under (i) for so long as such product(s) is Covered by any such Patent Rights (until such Patent Right expires, is surrendered, or is otherwise irrevocably revoked or declared invalid), and (b) with respect to the royalty under (ii), the [\*\*\*] anniversary of the date of the first commercial sale of such product(s) in the territory that is the subject of the Fosun Agreement; and in each case, such provision shall survive the termination or expiry of this Agreement.

# 3.5. Additional Licenses.

3.5.1. **To Pfizer.** Without limiting any other license or sublicense granted under this Agreement or the Commercialization Agreement and subject to the terms and conditions of this Agreement, BioNTech on behalf of itself and its Affiliates, effective as of the Effective Date, hereby grants (and will procure that its Affiliates grant) to Pfizer a non-exclusive, royalty-free, fully paid-up, sublicensable license under all BioNTech Improvements and Product Technology that were solely or jointly made or invented by Pfizer Representatives to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized and otherwise Exploit any products or processes outside the Field. In addition to the obligations set forth in Section 3.10 for the avoidance of doubt, the license granted in this Section 3.5.1 shall not include or imply a right of Pfizer to use any of BioNTech's Confidential Information (that is not a BioNTech Improvement or Product Technology) outside the Field.

#### 3.5.2. **To BioNTech**.

3.5.2.1. Without limiting any other license or sublicense granted under this Agreement or the Commercialization Agreement and subject to the terms and conditions of this Agreement, Pfizer, effective as of the Effective

Date, hereby grants to BioNTech a non-exclusive, royalty-free, fully paid-up, sublicensable license under all Pfizer Improvements that were solely or jointly invented by BioNTech Representatives to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized and otherwise Exploit any products or processes outside the Field.

- 3.5.2.2. Without limiting any other license or sublicense granted under this Agreement or the Commercialization Agreement and subject to the terms and conditions of this Agreement, Pfizer, effective as of the Effective Date, hereby grants to BioNTech a non-exclusive, royalty-free, fully paid-up, sublicensable license under Pfizer's interest in the Research and Development Program Technology to use, have used, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized and otherwise Exploit any products or processes outside the Field.
- 3.5.2.3. For the avoidance of doubt, the licenses granted in this Section 3.5.2 shall not include or imply a right of BioNTech to use any Pfizer Confidential Information (that is not a Pfizer Improvement or Research and Development Program Technology) outside the Field, but remain subject to the obligations set forth in Section 3.10.

3.6. <u>Sublicensees</u>. Either Party shall have the right to grant sublicenses and, as applicable, sub-sublicenses under and subject to the rights granted to it under this Section 3 to (a) its Affiliates; (b) permitted Third Party subcontractors which such Party uses to undertake services for, or to perform its obligations under, this Agreement, the Commercialization Terms and the Commercialization Agreement; (c) Sublicensees in respect of Manufacturing, provided that, other than where a sublicense is required by a Governmental Authority or pursuant to a Third Party Funder agreement, the sublicensing Party shall (i) discuss the proposed use of a Third Party with the other Party, and take into account any reasonable views, objections or comments with respect to the proposed Third Party; (ii) impose industry standard obligations of confidentiality and non-use on the Third Party with respect to the other Party's Confidential Information, and limit the disclosure of that other Party's Confidential Information so far as is reasonably necessary; and (iii) not, where Pfizer is the sublicensing Party, subcontract Manufacturing of the Product [\*\*\*] without BioNTech's prior consent (such consent not to be unreasonably withheld); and (d) distributors of the Product in the Territory; and (e) in the case of BioNTech, and subject to the restrictions in Sections 3.1, 3.2, and 3.4 and the terms of Section 11, Fosun and any of Fosun's Affiliates pursuant to the Fosun Agreement for Commercialization in the Field outside the Territory. In respect of any and all such sublicenses (or sub-sublicenses):

- 3.6.1. the sublicensing Party shall be responsible for failure by its Sublicensees to comply with the terms and conditions of this Agreement;
- 3.6.2. the rights sublicensed under the sublicense may not be further sublicensed by the Sublicensee;
- 3.6.3. the sublicensing Party shall notify the other Party in writing of any sublicenses granted to Third Parties (other than Fosun);

3.6.4. in the event of a sublicense in respect of the Commercialization of Product, shall provide a copy of the relevant sublicense agreement to the other Party upon request which may be redacted to delete provisions not applicable to the calculation of Gross Profits; and

3.6.5. unless otherwise agreed between the Parties on a case-by-case basis, all sublicenses shall automatically terminate (and the sublicensing Party shall ensure that all sublicenses automatically terminate) upon termination (for whatever reason) or expiry of a license granted hereunder, but only to the extent necessary to terminate the sublicense in so far as it corresponds to any terminated or expired licenses granted in this Agreement.

### 3.7. BioNTech Current Licenses.

- 3.7.1. **Maintenance of Current Licenses.** BioNTech will maintain in full effect and will perform all of its obligations in a timely manner under each of the Current Licenses. Absent Pfizer's prior written consent (which may be provided, conditioned or withheld in Pfizer's sole discretion), BioNTech will not terminate, modify or amend any Current License in any manner that would adversely affect any of the rights granted or that may be granted to Pfizer under this Agreement or that would impose any obligations upon Pfizer hereunder (including any increase in Third Party License Payments) that are in addition to those obligations that would exist under this Agreement based on the Current Licenses as they exist on the Effective Date or adversely affect BioNTech's ability to perform its obligations under this Agreement. Further, BioNTech will not take any action or omit to take any action that would cause it to be in breach of any Current License or that would give rise to a right of any Current Licensor to terminate the applicable Current License.
- 3.7.2. **Communications and Performance**. Notwithstanding anything to the contrary in this Agreement, BioNTech will use Commercially Reasonable Efforts to facilitate any communications between Pfizer and any Current Licensor required for Pfizer to exercise the rights granted to it pursuant to Section 3 and will use Commercially Reasonable Efforts to cause each applicable Current Licensor to perform all of its obligations under the applicable Current License.
- 3.7.3. **Breach of Current License by BioNTech**. If BioNTech receives notification of any actual or potential breach or otherwise becomes aware of its breach of any Current License (and if uncured, such breach could give rise to the termination of the applicable Current License), then BioNTech will immediately notify Pfizer of such breach. To the extent that any act or omission on the part of Pfizer is the cause of such breach of a Current License, Pfizer will take all actions and provide BioNTech with all cooperation necessary to cure such breach, in each case as reasonably requested by BioNTech and at Pfizer's sole cost and expense. To the extent that Pfizer is not the cause of such breach of a Current License, BioNTech will have the first opportunity to cure such breach in accordance with a plan to be mutually agreed upon by the Parties in writing, acting reasonably (each, a "Cure Plan"). If (a) BioNTech, at any time, is not using diligent efforts to cure such breach pursuant to the applicable Cure Plan or (b) BioNTech is unable to cure such breach in accordance with the applicable Cure Plan or it becomes reasonably apparent that BioNTech will not be able to cure such breach pursuant to the applicable Cure Plan, then Pfizer may, at its election and in its sole discretion and without prejudice to its other remedies against BioNTech, act reasonably to cure such breach and BioNTech will take all actions and provide Pfizer with all cooperation to cure such breach, in each case as directed by Pfizer. Further, if Pfizer is not the cause of such breach of a Current License, then BioNTech will, at Pfizer's sole election, (i) reimburse Pfizer for all out-of-pocket costs and expenses incurred by or on behalf of Pfizer or any of its Representatives in connection with curing such breach, go fits permit Pfizer, under the Commercialization Agreement, to offset any such costs and expenses incurred by or on behalf of Pfizer or any of Pfizer's Representatives in connection with curing such breach against Pfizer's future payme

3.7.4. **Termination of any Current License**. In the event that any Current License is terminated by the applicable Current Licensor and this Agreement, as of the effective date of such termination, has not otherwise been terminated, Pfizer, to the extent permitted by such Current License (or if not permitted or addressed in such Current License, to the extent permitted by the applicable Current Licensor), will have the right without prejudice to its other remedies against BioNTech, at Pfizer's election, to convert the sublicenses granted under this Agreement by BioNTech to Pfizer under such Current License to a direct license from the applicable Current Licensor to Pfizer on the terms and conditions contained in such Current License (with Pfizer assuming the applicable obligations of BioNTech thereunder) or such other terms and conditions as may be negotiated by Pfizer and the applicable Current Licensor. In the event Pfizer enters into any such direct license with a Current Licensor, BioNTech will, at Pfizer's sole election and without prejudice to its other remedies hereunder:

- 3.7.4.1. in respect of royalties payable by Pfizer under such direct license to the Current Licensor, to the extent such royalties are due in connection with the sale of Candidates or Products hereunder, reimburse to Pfizer the difference between (a) the amount that would have been payable by BioNTech to the Current Licensor under the Current License if the Current License had not been terminated and (b) the amount that would have to be reimbursed by Pfizer to BioNTech in accordance with the terms of the Commercialization Agreement; or
- 3.7.4.2. permit Pfizer to offset any such reimbursement amounts (to the extent not reimbursed pursuant to clause (a) above), against Pfizer's future payment obligations to BioNTech (or any of its successor or assigns) under the Commercialization Agreement.
- 3.7.5. **Consents and Waivers**. BioNTech represents, warrants and covenants to Pfizer that, to the extent any terms and conditions of this Agreement do not (or will not at any time during the Term) conform to any requirements relating to the grant of sublicenses under any Current License, it has obtained the irrevocable consent (or, if applicable, the waiver of any resultant conflict) from the applicable Current Licensor that is necessary to permit the activities contemplated under this Agreement, including, such that BioNTech may grant the applicable sublicenses granted or to be granted hereunder and perform all of its obligations hereunder and Pfizer may exercise all of its rights and perform all of its obligations hereunder, in each case, without breaching the applicable Current License. In the event that any provision in any Current License which conflicts with this Agreement or adversely impacts the activities contemplated under this Agreement comes to the attention of either BioNTech or Pfizer or which otherwise, at any time during the Term, would cause the representation, warranty and covenant set forth in the preceding sentence to be untrue, BioNTech, in consultation with Pfizer, will obtain any and all additional required consents or waivers from the applicable Current Licensor(s) which may be necessary to align the conflicting provision(s) of the applicable Current License with this Agreement and to permit the activities contemplated by this Agreement.
- 3.7.6. **Exceptions to the Fosun Agreements**. If BioNTech (as opposed to Pfizer) has breached the Fosun Agreement [\*\*\*]. In addition, in respect of the Fosun Agreement (i) [\*\*\*]; and (ii) [\*\*\*].

- 3.7.7. **Reduction in Royalties**. BioNTech shall use reasonable efforts to obtain any reductions or waivers in royalties or other payments due under the Current Licenses that could constitute Third Party License Payments due to the pandemic status of COVID-19 or with respect to countries or populations experiencing emergency pandemic or crisis epidemic, coronavirus conditions, including taking into account any restrictions on pricing for the Product based on applicable Law and funding agreements with Third Party Funders. For the avoidance of doubt, BioNTech does not guarantee that any such reductions or waivers can be obtained from such licensors.
- 3.8. <u>Third Party Agreements</u>. Each Party will be solely responsible for all obligations (including royalty and payment obligations) that relate to Candidates, Products, BioNTech Technology or Pfizer Technology under its or its Affiliates' own agreements with Third Parties that are in effect on or prior to the Effective Date, including the Current Licenses for which BioNTech has sole responsibility.
- 3.9. No Implied Rights. Except as expressly provided in this Agreement, neither Party will be deemed to have granted the other Party (by implication, estoppel or otherwise) any right, title, license or other interest in or with respect to any Patent Rights, Know-How or other Intellectual Property Rights or information Controlled by such Party.

### 3.10. Exclusivity.

- 3.10.1. **Mutual Exclusivity.** Except if otherwise permitted by the unanimous consent of the JSC, during the Term, neither Party shall, and shall procure that its Affiliates shall not, itself or with or on behalf of a Third Party, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized or otherwise Exploit or have Exploited any [\*\*\*] in the Field within the Territory, except that each Party may continue any existing agreement with a Third Party for non-clinical research within the Field with academic institutions and consortia. For avoidance of doubt, the foregoing exclusivity obligation shall not apply to (a) [\*\*\*]; (b) [\*\*\*]; (c) [\*\*\*]; or (d) [\*\*\*].
- 3.10.2. **Exclusivity of the Licenses**. Without prejudice to the licenses granted by BioNTech pursuant to this Section 3 or pursuant to the Commercialization Agreement, BioNTech shall not, and shall procure that its Affiliates shall not, grant any license, permission, waiver, covenant not to sue, or other right to use or Exploit any of the BioNTech Technology within the Field and within the Territory that would conflict with or erode any of Pfizer's rights hereunder.

3.10.3. **Exclusivity in the Product**. Except pursuant to this Agreement or the Commercialization Terms or Commercialization Agreement, neither Party shall, and shall procure that its respective Affiliates shall not, itself or with or on behalf of a Third Party, Develop, have Developed, Manufacture, have Manufactured, Commercialize, have Commercialized or otherwise Exploit (a) any Candidate Controlled by BioNTech as of the Effective Date within the Field; or (b) any Candidate that, as a consequence of the Development under this Agreement, becomes Controlled by BioNTech after the Effective Date, for any field; or (c) any Product for any field or application; in each case (a), (b) and (c) other than for non-clinical research purposes, or within the Field pursuant to the Fosun Agreement.

### 4. COMMERCIALIZATION

- 4.1. Commercialization Agreement. With respect to Commercialization, the Parties have agreed to the terms set forth in Schedule 4.1 ("Commercialization Terms") and will, for [\*\*\*] following the Signing Date (or any other time period agreed by the Parties in writing), negotiate and execute a definitive Commercialization Agreement reflecting such Commercialization Terms. Such agreement shall be negotiated in good faith and acting reasonably, and shall set forth the rights and responsibilities of the Parties in connection with the Commercialization of the Products and which shall be consistent with the Commercialization Terms. If the Commercialization Agreement is not executed within the [\*\*\*] period the Parties will prioritize and engage in additional discussions to conclude and execute the Commercialization Agreement as soon as possible.
- 4.2. <u>Commercialization Rights Pending Agreement</u>. If a definitive Commercialization Agreement is not executed before the Product is first ready to be Commercialized in the Territory, each Party may still commence and continue with the Commercialization of the Product in its respective Commercialization territory, but shall do so subject to the provisions of the Commercialization Terms until the Commercialization Agreement is executed.

# 5. PAYMENTS AND FUNDING.

- 5.1. <u>Upfront Payment</u>. Pfizer shall make a one-time, non-refundable (without limiting Pfizer's right to claim for damages under this Agreement) payment of Seventy-two Million Dollars (\$72,000,000) to BioNTech ("<u>Upfront Payment</u>") within thirty (30) days of receipt of BioNTech's invoice (such invoice to be delivered on or following the Signing Date), but not before the Research and Development Plan, Development Budget and Manufacturing Plan are agreed between the Parties in accordance with Section2.2, which payment shall be dedicated to activities to be performed under the Research and Development Plan.
- 5.2. <u>Equity Investment</u>. Pfizer and BioNTech shall enter into an "Investment Agreement" contemporaneously with this Agreement pursuant to which Pfizer agrees to subscribe for shares in BioNTech in consideration for an investment amount of One Hundred and Thirteen Million Dollars (\$113,000,000) based on a price per share of \$47.53, subject to the conditions as prescribed in such Investment Agreement ("<u>Equity Investment</u>").
- 5.3. Regulatory Milestone Payment. Within [\*\*\*] of the date upon which either BioNTech or Pfizer first obtains all Regulatory Approvals required for the Commercialization of the Product in a Major Market Country in the Territory, Pfizer shall pay BioNTech a one-time, non-refundable (without limiting Pfizer's right to claim for damages under this Agreement) milestone payment of [\*\*\*] Dollars (US\$[\*\*\*]) ("Regulatory Approval Milestone"), which shall be automatically applied to repayment of, and offset against, the BioNTech Deferred Development Costs, and to the extent that at such time the BioNTech Deferred Development Costs are less than the value of the Regulatory Approval Milestone any difference shall be paid to BioNTech.

- 5.4. Sharing of Development Costs.
- 5.4.1. **Shared Development Costs.** Except as otherwise provided herein, each Party shall bear fifty percent (50%) of all Shared Development Costs.
- 5.4.2. **BioNTech Deferred Development Costs**. Without prejudice to Section 5.4.1, BioNTech's share of the Shared Development Costs incurred in accordance with the binding parts of the Development Budget, Research and Development Plan and the Manufacturing Plan, and this Agreement, and which are not funded by a Third Party Funder, shall be funded initially by way of an interest free repayable loan from Pfizer unless and until there is a Funding Event ("BioNTech Deferred Development Costs"). Following a Funding Event, BioNTech shall thereafter fund its share of the Shared Development Costs in accordance with Section 5.4.4. The BioNTech Deferred Development Costs shall be funded by Pfizer but shall be subject to the reporting and reconciliation provisions of Section 5.4.4. The BioNTech Deferred Development Costs shall be repayable through (a) the Regulatory Approval Milestone, if paid pursuant to Section 5.3; (b) a proportion of the Commercialization Sales Milestone Payments (as defined and described in Schedule 4.1); (c) Pfizer's retention of the Enhanced Profit Share element of Gross Profits pursuant to the Commercialization Terms set out in the Commercialization Terms and (d) an immediate lump sum paid by BioNTech upon (i) Change of Control of BioNTech pursuant to Section 14.1.3.3, provided that the most recent published annual group net income, published prior to the date of such Change of Control, of the Third Party acquiring BioNTech is [\*\*\*] Dollars or (ii) termination of this Agreement for BioNTech's breach or its bankruptcy or insolvency. If this Agreement is terminated by Pfizer pursuant to its right under Section 13.4, the BioNTech Deferred Development Costs shall cease to be repayable by BioNTech.
- 5.4.3. **Budgeting of Shared Development Costs.** The Parties shall agree on, and regularly update (if required), the Development Budget through the JSC. As soon as either Party determines that it is likely to overspend on the binding part of the Development Budget that is allocated to that Party by more than [\*\*\*], it shall inform the JSC accordingly, and shall only be entitled to incur such overrun costs as Shared Development Costs pursuant to Section 5.4.1 and 5.4.2 upon the JSC's mutual consent.
- 5.4.4. Reporting and Reconciliation. Wherever possible and practicable, prior to any Funding Event any external Shared Development Costs incurred in accordance with the binding parts of the Development Budget shall initially be invoiced to and borne by Pfizer, but shall be subject to reimbursement in accordance with this Section 5.4.4. All other Shared Development Costs incurred in accordance with the binding parts of the Development Budget shall initially be borne by the Party incurring such costs and shall thereafter be subject to reimbursement in accordance with this Section 5.4.4. Each Party shall report to the other Party, within [\*\*\*] after the end of each Pfizer US Quarter, the Shared Development Costs incurred by such Party during such Pfizer Quarter. Such report shall specify in reasonable detail all amounts included in such Shared Development Costs during such Pfizer Quarter (broken down by activity), and out-of-pocket costs shall be allocated to the extent possible to a specific activity in the applicable binding part of the Research and Development Plan. Each such report shall enable the receiving Party to compare the reported Shared Development Costs against the applicable binding part of the Development Budget previously approved by the JSC, on both a quarterly basis and a cumulative basis for each activity. The Parties shall seek to resolve any questions related to such accounting statements within [\*\*\*] following receipt by each Party of the other Party's report hereunder. Following such resolution, BioNTech shall prepare a reconciliation report for the Shared Development Costs for such Pfizer Quarter (including as against the binding parts of the Development Budget) and shall either (a) deliver an invoice to Pfizer for any amounts due to

BioNTech as a result of reconciliation or (b) notify Pfizer that it should issue an invoice to BioNTech for any amounts due to Pfizer as a result of reconciliation. Any such invoice from BioNTech to Pfizer shall be payable within [\*\*\*] from receipt by Pfizer. Prior to any Funding Event, any such invoice from Pfizer to BioNTech shall not be payable upon receipt, but shall be accounted as BioNTech Deferred Development Costs and shall be payable in accordance with the mechanism described in Section 5.4.2. Following any Funding Event, any such such invoice from Pfizer to BioNTech shall be payable within [\*\*\*] from receipt by Pfizer.

- 5.4.5. **Capex Costs**. Notwithstanding anything else in this Agreement, each Party shall be solely responsible for its own Capex Costs and any capital expenditures required in connection with this Agreement or the Commercialization Agreement.
- 5.4.6. **Other Costs.** Except as expressly set forth otherwise in this Agreement), each Party will bear all costs and expenses it incurs in connection with its activities under this Agreement.

# 5.5. Third Party Funding.

- 5.5.1. **Third Party Funders.** Pfizer and BioNTech shall, in good faith and acting collaboratively, seek funding from one or more Third Parties for such Third Party to provide financial support to the collaboration between the Parties under this Agreement (each, a "<u>Third Party Funder</u>"). For each potential Third Party Funder, the Parties will agree on (a) the Party to lead the communications and discussions with such Third Party Funder (the "<u>Lead Party</u>") and (b) the activities, costs or expenses for which funding support shall be sought (e.g. funding for Development costs, funding in support of a Party's Capex Costs ("<u>Capex Funding</u>") or both). An initial list of potential Third Party Funders and their allocation as between the Parties is set forth in Schedule 5.5. Notwithstanding the foregoing, Pfizer shall be entitled to secure funding from, and shall be the Lead Party in discussions with, [\*\*\*], in the event that Pfizer, in its sole discretion, [\*\*\*], and BioNTech shall be entitled to secure funding from, and shall be the Lead Party in discussions with, [\*\*\*], in the event that BioNTech, in its sole discretion, chooses to seek funding from [\*\*\*].
- 5.5.2. **Discussions with Funders.** The Lead Party will lead any discussions with such Third Parties in any country, provided that the Lead Party will provide regular updates to the JSC and keep the JSC reasonably informed of the status and any developments in such discussions, and shall, at the other Party's reasonable request, update the other Party on any such discussions. The Lead Party shall conduct any such discussions and draft and file any applications for any Third Party Funding in good faith and acting reasonably with respect to its requests for such funding. Where legally possible and unless otherwise agreed between the Parties, each application for any Third Party funding shall be made in both Parties' name unless the Parties have agreed in advance pursuant to Section 5.5.1 that such application shall be in respect of one Party's Capex Funding alone, in which case such application may be made in that Party's own name alone. The Lead Party shall not enter into a written agreement with any Third Party Funder without prior written consent of the other Party (such consent not to be unreasonably withheld, conditioned or delayed) unless the Parties have agreed in advance pursuant to Section 5.5.1 that such agreement shall be in respect of that Lead Party's Capex Funding alone, in which case the Lead Party can conclude such Third Party Funder agreement without consent from the other Party. Notwithstanding the foregoing, (a) Pfizer shall be entitled to seek any funding from [\*\*\*] without requiring BioNTech's consent; and (b) BioNTech shall be entitled to seek any funding from [\*\*\*] without requiring Pfizer's consent. Pfizer and BioNTech acknowledge and agree that there is no guaranty that any Lead Party will be successful in securing any funding from any Third Party Funder or that any specific amount of funding will be obtained.

- 5.5.3. **Allocation of Funds and Balancing Payment.** To the extent possible, any Third Party funding to the extent it relates to activities in relation to which the Parties have agreed to treat the associated Development costs as Shared Development Cost shall be shared equally between the Parties. If such sharing is not possible, a balancing adjustment shall be made in favor of the other Party to the Shared Development Costs to reflect [\*\*\*] percent of such funding that that Party receives from the Third Party Funder provided that doing so does not breach any applicable Laws or the terms of such funding. Each Party shall promptly report to the other Party in writing if and when it receives any payments from any Third Party Funder funding that relates to activities, costs or expenses that are Shared Development Costs.
- 5.5.4. **Not Applicable to Loans.** For the avoidance of doubt, this Section 5.5 shall not apply to any traditional loans provided by any Third Party to a Party provided that (a) such loans are repayable by the borrower Party and not, directly or indirectly, by the other Party; (b) this Agreement, the Commercialization Agreement, any other agreement ancillary to this Agreement or the Commercialization Agreement, the BioNTech Technology, Product Technology and Product are not provided as security for, or otherwise encumbered by way of, such loan (excluding, for clarity, any tangible assets). Each Party shall be entitled to seek any such loans from any Third Party without any obligations to the other Party.
- 5.6. Records and Accounting Principles. Each Party shall keep books and records of any of Shared Development Costs and any Third Party funding in accordance with good industry practice and GAAP or IFRS, as applicable. Each Party shall determine Shared Development Costs using its standard accounting procedures, consistently applied and in accordance with GAAP or IFRS, as applicable (provided that the application of such procedures results, on balance, in outcomes that are fair and equitable to both Parties taking into consideration the interests of both Parties as reflected in this Agreement). All personnel costs of either Party or its Affiliates are excluded from Shared Development Costs.

### 5.7. <u>Taxes</u>.

5.7.1. Withholding Taxes. The Parties agree to use reasonable efforts to cooperate with one another and use commercially reasonable efforts to avoid or reduce, to the extent permitted by applicable Law, tax withholding or similar obligations in respect of royalties, milestone payments, and other payments made by the paying Party to the receiving Party under this Agreement ("Withholding Taxes"). If Withholding Taxes are imposed on any compensation under this Agreement, the liability for such Withholding Taxes shall be the sole responsibility of the receiving Party, and the paying Party shall (a) deduct or withhold such Withholding Taxes from the payment made to the receiving Party, (b) timely pay such Withholding Taxes to the proper taxing authority, and (c) send proof of payment to the receiving Party within [\*\*\*] following such payment. Each Party shall comply with (or provide the other Party with) any certification, identification or other reporting requirements that may be reasonably necessary in order for the paying Party to not withhold Withholding Taxes or to withhold Withholding Taxes at a reduced rate under an applicable bilateral income tax treaty. Each Party shall provide the other with commercially reasonable assistance to enable the recovery, as permitted by applicable Law, of Withholding Taxes or similar obligations resulting from payments made under this Agreement, such recovery to be for the benefit of the Party bearing the cost of such Withholding Taxes under this Section 5.6 (Taxes and Withholding). Notwithstanding the foregoing, if as a result of any assignment or sublicense by the paying Party, any change in the paying Party's tax residency, any change in the entity that originates the payment, or any failure on the part of the paying Party to comply with applicable

Law with respect to Withholding Taxes (including filing or record retention requirements), Withholding Taxes are imposed that would not otherwise have been imposed ("Incremental Withholding Taxes"), then the paying Party shall be solely responsible for the amount of such Incremental Withholding Taxes and shall increase the amounts payable to the receiving Party so that the receiving Party receives a sum equal to the sum which it would have received had there been no such imposition of Incremental Withholding Taxes.

- 5.7.2. **Value Added Tax**. All payments between the Parties under this Agreement are exclusive of applicable statutory value added tax or similar taxes ("<u>VAT</u>"), if any, which shall be listed separately on each invoice. If and to the extent any VAT will become payable due to any supplies or services rendered under this Agreement and if and to the extent such VAT is to be paid by the Party providing the supply or service to the competent tax authorities, the receiving Party shall pay an amount equal to such VAT to the providing Party upon receipt of a valid invoice allowing for the recovery of such VAT.
- 5.7.3. **Other.** Except as otherwise set forth in this Section 5.7, each Party shall be solely responsible for the payment of all Taxes imposed on such Party's income arising directly or indirectly from the activities of the Parties under this Agreement.
- 5.8. <u>Currency, Source of Payments</u>. All amounts payable and calculations under this Agreement will be in United States dollars, [\*\*\*]. As applicable, all costs and expenses will be translated into United States dollars at the exchange rate used by the relevant Party for public financial accounting purposes. If, due to restrictions or prohibitions imposed by national or international authority, a given payment cannot be made as provided under this Section 5.8, the Parties will consult with a view to finding a prompt and acceptable solution. If the Parties are unable to identify a mutually acceptable solution regarding such payment, then the Party owing the relevant payment may elect, in its sole discretion, to deliver such payment in the relevant jurisdiction and in the local currency of the relevant jurisdiction.
- 5.9. Method of Payment. Except as permitted pursuant to Section 5.8, each payment hereunder will be made by electronic transfer in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism, or any other means of electronic funds transfer, at the paying Party's election, to such bank account as the receiving Party will designate in writing to the other Party within [\*\*\*] of the Signing Date, and thereafter at least [\*\*\*] before the payment is due. All invoice or billing related questions in relation to Pfizer should be referred to Pfizer's Accounting Department at 800.601.1357 or go to the Accounts Payable Invoice Portal at ap.pfizer.com. Unless otherwise specified herein, each invoice is payable within [\*\*\*] of receipt of the relevant invoice.
- 5.10. Audits. Upon [\*\*\*] prior notice from a Party (the "Auditing Party"), the other Party (the "Audited Party.") will permit an independent certified public accounting firm of nationally recognized standing selected by the Auditing Party and reasonably acceptable to the Audited Party, to examine, [\*\*\*], the relevant books and records of the Audited Party and its Affiliates (and where possible, its subcontractors) as may be reasonably necessary to verify the amounts reported by the Audited Party in accordance with Sections 5.4 and 5.5. An examination by the Auditing Party under this Section 5.10 will occur not more than [\*\*\*] and will be limited to the pertinent books and records for any Calendar Year ending not more than [\*\*\*] before the date of the request. The accounting firm will be provided access to such books and records at the Audited Party's or its Affiliates' facility(ies) where such books and records are normally kept and such examination will be conducted during the Audited Party's or its Affiliates' normal business hours. The Audited Party may require the accounting firm to sign a reasonably acceptable non-disclosure agreement before providing the accounting firm with access to the Audited Party's or its Affiliates' facilities or records. Upon completion of the audit, the accounting firm will provide both Pfizer and BioNTech the same written report disclosing any discrepancies in the reports submitted by the Audited Party, and, in each case, the specific details concerning any discrepancies. No other information will be provided to the Auditing Party.

5.10.1. **Underpayments/Overpayments**. If such accounting firm concludes that there are errors in how Shared Development Costs have been charged, allocated or reclaimed, or Third Party funding has not been allocated in accordance with this Agreement by the Audited Party, then adjustments shall be made in accordance with the accounting firm's recommendations in a reconciliation of Shared Development Costs and any overpayment or underpayment by the Audited Party shall be rectified either by a refund to, or payment by, the Audited Party from or to the Auditing Party within [\*\*\*] of the date the Audited Party receives such accountant's written report. Further, if the amount of any overpayment or overallocation to the Audited Party exceeds more than [\*\*\*] of the amount that was properly payable due or allocated to the Audited Party, then the Audited Party will reimburse the Auditing Party for the Auditing Party's out-of-pocket costs in connection with the audit.

5.10.2. **Confidentiality**. Notwithstanding any provision of this Agreement to the contrary, all reports and financial information of the Audited Party or its Affiliates which are provided to or subject to review by the Auditing Party will be deemed to be Confidential Information of the Audited Party and subject to the provisions of Section 11.1.

### 5.11. No Guaranty of Success.

- 5.11.1. Pfizer and BioNTech acknowledge and agree that any milestone payments pursuant to BioNTech hereunder or under the Commercialization Terms: (a) have been included in this Agreement on the basis that they are only payable or otherwise relevant if a certain Product is successfully Developed or Commercialized in accordance with the applicable milestone or event, as applicable; (b) are solely intended to allocate amounts that may be achieved upon successful Development or Commercialization of such Product as applicable, between Pfizer and BioNTech; (c) are not intended to be used as a measure of damages if this Agreement is terminated for any reason; and (d) will only be triggered, and will only be relevant as provided, in accordance with the terms and conditions of such provisions.
- 5.11.2. Pfizer and BioNTech further acknowledge and agree that nothing in this Agreement, or in any document or presentation provided by Pfizer to BioNTech prior to the Effective Date will be construed as representing any estimate or projection of (a) the successful Development or Commercialization of any Product under this Agreement, (b) the number of Products that will or may be successfully Developed or Commercialized under this Agreement, (c) anticipated sales or the actual value of any Products that may be successfully Developed or Commercialized under this Agreement or (d) the damages, if any, that may be payable if this Agreement is terminated for any reason.
- 5.11.3. Neither Party makes any representation, warranty or covenant, either express or implied, to the other Party that (a) it will successfully Develop, Manufacture, Commercialize or continue to Develop, Manufacture or Commercialize any Product in any country, (b) if Commercialized, that any Product will achieve any particular sales level, whether in any individual country or cumulatively throughout the Territory or (c) it will devote, or cause to be devoted, any level of diligence or resources to Developing, Manufacturing or Commercializing any Product in any country, or in the Territory.

### 6. RESEARCH AND DEVELOPMENT PLAN

6.1. Scope of Development and Updating of Plans. Pfizer and BioNTech will collaborate during the Term to conduct research to identify, Develop and evaluate Candidates and Products within the Field in accordance with the binding parts of the Research and Development Plan, the Development Budget, the Manufacturing Plan, and the terms and conditions set forth in this Section 6. The Research and Development Plan may be modified by agreement and approval of the JSC pursuant to Section 7, provided that the JSC shall have no right or authority to (a) modify the Research and Development Plan in a way not permitted under Section 7.3; or (b) modify the Research and Development Plan so as to amend the contractual provisions of this Agreement. The initial [\*\*\*] of each of the Research and Development Plan, the Manufacturing Plan and the Development Budget shall be agreed between the Parties by [\*\*\*], the first [\*\*\*] of each are binding upon the Parties and the second [\*\*\*] are indicative but non-binding. At least [\*\*\*] prior to the expiration of such initial [\*\*\*] binding period, the JSC shall decide and mutually agree on the following [\*\*\*] period of each of the Research and Development Plan, the Manufacturing Plan and the Development Budget which period, upon agreement, shall be binding upon the Parties subject to Section 7.3.4. At least [\*\*\*] days prior to the expiration of the initial [\*\*\*] period following the Effective Date, the JSC shall establish a rolling [\*\*\*] process to decide on and update each of the Research and Development Plan, the Development Budget and the Manufacturing Plan for subsequent [\*\*\*] periods, each of which shall be updated by the JSC no later than [\*\*\*] prior to the expiration of the then binding [\*\*\*] period.

6.2. Research and Development Plan. The Research and Development Plan shall (a) include a broad non-binding overview of the first [\*\*\*] of the planned Development program (specifying in reasonable detail all material Development activities) to generate the preclinical, clinical, CMC, regulatory and other information required for submitting a marketing authorization application for Regulatory Approval for the Candidate or Product and to achieve such Regulatory Approval for the Candidate or Product in one or more selected country(ies) of the Territory; (b) include a more detailed and binding part of the plan for the initial binding period described in Section 6.1, which will be updated in accordance with Section 6.1; and (c) set forth those obligations assigned to each Party with respect to the performance of the Development activities contemplated by such Research and Development Plan.

### 6.3. Allocation of Responsibilities.

- 6.3.1. **General**. Each Party will use Commercially Reasonable Efforts to perform its obligations and activities identified under the binding parts of the Research and Development Plan or as allocated to it by the JSC in a professional manner in accordance with any target dates set forth in Research and Development Plan. Further, each Party will perform its obligations under the binding parts of the Research and Development Plan or as allocated to it by the JSC in compliance with all Laws applicable to its activities under the Research and Development Plan.
  - 6.3.2. **Mutations**. If and to the extent Mutations of the SARS-CoV-2 virus arise [\*\*\*]
- 6.3.3. **Label Extensions**. If a Party wishes to extend the label or approved indication of any Product Developed hereunder to other indications (including any outside of the Field), it may so notify the JSC. In such event, the JSC shall discuss such label extension in good faith. If the JSC agrees by unanimous consent that Development should be undertaken to support the label extension, the Parties shall include the Development activities required to be undertaken to support

such label extension in the Research and Development Plan and, if appropriate, amend the Field accordingly to cover such extension. Any external cost or expense (other than Capex Cost) incurred by either Party (or its Affiliates) solely and specifically in connection with such Development activities [\*\*\*].

- 6.3.4. **Subcontractors**. Either Party may subcontract its responsibilities under the binding parts of the Research and Development Plan or those allocated to it by the JSC without the other Party's prior written consent; *provided* that such Party shall be responsible for the management of all permitted subcontractors (which will include any Affiliate of a Party). The engagement of any Third Party subcontractor by a Party shall be in writing. The engagement of any subcontractor (whether Affiliate or Third Party) shall not relieve such Party of its obligations under this Agreement or the binding parts of the Research and Development Plan. Any agreement between the Party or its Affiliate and a subcontractor pertaining to the Research and Development Plan activities shall be consistent with the provisions of this Agreement including (a) an obligation to assign all Intellectual Property Rights generated during its performance of such Research and Development Plan to the Party free of any encumbrance such that the Party may fulfil its obligations hereunder and (b) terms and conditions under which such Third Party is obligated to preserve the confidentiality of the Research and Development Program, Research and Development Program Technology and any Confidential Information are at least as restrictive as those described in Section 11.2.1.
- 6.3.5. **Flexibility of Resources**. Due to practical consequences arising from the outbreak of the virus that is the subject of the Field, it may become difficult or temporarily impossible (including as classified as a force majeure event) for a Party to fulfil all of its responsibilities under the Research and Development Plan or as allocated to it by the JSC. Accordingly, a Party, in its effort to collaborate, may therefore agree to swap, substitute or perform any of the other Party's responsibilities that were allocated to it in the Research and Development Plan or by the JSC. The JSC shall be responsible for coordinating any such changes, which must be finally approved in writing by the Parties where the change results in a Party taking on additional financial cost and responsibility.
- 6.3.6. **Personnel Matters**. Each Party acknowledges and agrees that it is solely responsible for the compensation of its personnel assigned to the Research and Development Plan, and shall be responsible for withholding all national, state, local or other applicable taxes and similar items for such personnel. Each Party also shall be responsible for all other of its employer related obligations, including providing appropriate insurance coverage and employee benefits, and making all other deductions required by law affecting the gross wages of each of its employees. BioNTech personnel assigned to the Research and Development Plan activities are not nor shall they be deemed to be employees of Pfizer, and Pfizer personnel assigned to the Research and Development Plan activities are not nor shall they be deemed to be employees of BioNTech.

### 7. CONTRACT GOVERNANCE.

7.1. <u>Alliance Managers</u>. Each Party will appoint a single individual to act as the primary point of contact between the Parties to support the activities under the Research and Development Plan and the Manufacturing Plan (the "<u>Alliance Managers</u>"). Each Party may change its designated Alliance Manager at any time upon written notice to the other Party. As of the Effective Date, the Alliance Manager for Pfizer will be [\*\*\*] and the Alliance Manager for BioNTech will be [\*\*\*]. The Alliance Managers will:

- 7.1.1. use good faith efforts to attend (either in person or by telecommunications) all meetings of the JSC, but will be non-voting members at such meetings; and
  - 7.1.2. be the first point of referral for all matters of conflict resolution and bring disputes to the attention of the JSC in a timely manner.
- 7.2. <u>Program Directors</u>. Each Party will appoint a program director to oversee all activities conducted under the Research and Development Plan (each, a "<u>Program Director</u>"). Each Party may change its designated Program Director at any time upon written notice to the other Party. The Program Directors will coordinate the efforts of their respective Party in conducting activities under the Research and Development Plan. As of the Effective Date, the Program Directors for Pfizer and BioNTech are [\*\*\*], respectively.

# 7.3. Joint Steering Committee.

7.3.1. **Composition**. As of the Effective Date, the Parties will establish a Joint Steering Committee, comprised of at least [\*\*\*] representatives of BioNTech (including the Alliance Manager for BioNTech) and at least [\*\*\*] representatives of Pfizer (including the Alliance Manager for Pfizer). The JSC representatives for each of Pfizer and BioNTech will be referred to herein as the "<u>Pfizer JSC Members</u>" and the "<u>BioNTech JSC Members</u>" respectively. As of the Effective Date, the Pfizer JSC Members shall be [\*\*\*] and the BioNTech JSC Members shall [\*\*\*].

Each Party may replace its representatives to the JSC at any time upon notice to the other Party, provided that at all times an equal number of representatives from each Party are appointed to the JSC and each Party shall be responsible for ensuring any replaced representative is fully briefed and apprised of the Research and Development Program. Each Party shall procure that its JSC representatives shall make themselves available to attend JSC meetings upon reasonable notice and in accordance with this Agreement. Each Party may invite non-voting employees and consultants to attend meetings of the JSC. All members of the JSC and any invitees of either Party described above will agree in writing to be bound to obligations of confidentiality and assignment of Intellectual Property Rights no less restrictive than those that bind the Parties under this Agreement.

- 7.3.2. **Committee Chair**. The JSC will be chaired by a BioNTech JSC Member (the "<u>JSC Chair</u>"). BioNTech may replace the JSC Chair at any time upon notice to Pfizer. The responsibilities of the JSC Chair will be:
  - 7.3.2.1. to notify each Party at least [\*\*\*] Business Days in advance of each JSC meeting;
  - 7.3.2.2. to collect and organize agenda items for each JSC meeting; and

- 7.3.2.3. to prepare the written minutes of each JSC meeting and circulate such minutes for review and approval by the Parties and identify action items to be carried out by the Parties.
- 7.3.3. **Meetings**. Until the initiation of a Phase I Clinical Trial or Expedited Trial Pathway, the JSC shall meet at least weekly, unless otherwise unanimously agreed. Thereafter, the JSC will meet on at least bi-weekly basis (or less or more frequently as the JSC so determines), either in-person or by audio or video teleconference. Meetings of the JSC will occur at such times and places as mutually agreed by the Parties. Any sub-committees or working groups established in accordance with Section 7.3.4 may meet via audio or video teleconference on a regular basis and in-person at such times and places as the Parties may agree. Meetings of the JSC will only occur if at least two representatives of each Party are present at the meeting or participating by teleconference or videoconference. Each Party will be responsible for, and will not be entitled to any reimbursement from the other Party with respect to, any and all personnel costs or expenses (including travel expenses) which are incurred by or on behalf of its personnel in connection with participation in any JSC meetings or sub-committee or working group meetings, or any other travel required to be undertaken by either Party's personnel in connection with the performance of the Agreement. The JSC Chair will use good faith efforts to (a) prepare and circulate to BioNTech and Pfizer each JSC meeting agenda on or before the day prior to the scheduled date for each JSC meeting and (b) circulate for review and approval by BioNTech and Pfizer written minutes of each JSC meeting within [\*\*\*] Business Days after such meeting. The Parties will agree on the minutes of each meeting promptly, but in no event later than the day before the next meeting of the JSC.
- 7.3.4. **Responsibilities**. The JSC will coordinate and provide operational and strategic oversight of the Development and Manufacturing activities to be performed under the Research and Development Plan and the Manufacturing Plan by each Party and, within such scope will:
  - 7.3.4.1. review and approve all proposals of whether to seek funding from a Third Party Funder, and the terms of any proposed agreement with a Third Party Funder, which (with the exceptions specified in Section 5.5.2 for [\*\*\*] and [\*\*\*]) will require unanimous consent of the JSC;
  - 7.3.4.2. monitor and assess the progress of activities under the Research and Development Plan and the Manufacturing Plan;
  - 7.3.4.3. decide on the Candidates or Products that will be studied in the Clinical Trials;
  - 7.3.4.4. decide on the design of the Clinical Trials, including the protocol governing the Clinical Trials;
  - 7.3.4.5. decide on and revise and approve any revisions of the Research and Development Plan, the Development Budget and the Manufacturing Plan (including in accordance with the mechanism described in Section 6.1 and any adjustments pursuant to Section 6.3.3 and 6.3.5), each of which shall require unanimous consent of the JSC except as expressly set forth in Section 7.3.5;

EX-10.45 2/2/2021

- 7.3.4.6. discuss any Intellectual Property Rights of a Third Party which may be relevant to Candidates and Products; 7.3.4.7. oversee the Development of Manufacturing processes relating to the Candidates or Products, establishment of
- Manufacturing capacity, and endorse a strategy for Manufacturing Candidates and Product for both the Clinical Trials and planned Commercialization;
- 7.3.4.8. review and discuss all preclinical data and data arising from Clinical Trials investigating the Candidate or Product in the Territory, including adverse events;
- 7.3.4.9. review and discuss all preclinical data and data arising from Clinical Trials under the Fosun Agreement, including adverse events;
- 7.3.4.10. form such other committees and sub-committees as the JSC may deem appropriate, such as a Joint Development Committee, a Joint Manufacturing Committee and the like, provided that the JSC may, with unanimous consent, delegate decision-making authority (that is within the JSC's own authority) relevant to such committee's and sub-committee's area of expertise only (and the Parties agree that they will form Joint Manufacturing Committee within [\*\*\*] days of the Effective Date);
- 7.3.4.11. address such other matters relating to the activities of the Parties under the Research and Development Plan or the Manufacturing Plan as either Party may bring before the JSC, including any matters that are expressly for the JSC to decide as provided in this Agreement;
- 7.3.4.12. agree on a Development Budget, as well as any amendments to such budgets, provided that the Development Budget and any amendments to it shall require unanimous consent of the JSC;
- discuss, collaborate on and oversee any applications for Regulatory Approvals in respect of the Candidates and 7.3.4.13. Products, both within and outside the Territory;
- discuss, collaborate on and agree on mutations pursuant to Section 6.3.2 or any label extension pursuant to 7.3.4.14. Section 6.3.3, each of which must be agreed by unanimous consent of the JSC; and
- 7.3.4.15. attempt to resolve any disputes between the Parties with respect to (a) the performance of activities under the Research and Development Plan or the Manufacturing Plan on an informal basis or (b) matters before the Patent Committee, in each case subject to Section 7.3.5.

7.3.5. **Decision-making**. Notwithstanding the number of Pfizer JSC Members or BioNTech JSC Members, each Party will have one (1) vote, and the JSC will make decisions on a unanimous basis. The JSC will use good faith efforts to reach agreement on any and all matters properly brought before it. If, despite such good faith efforts, the JSC is unable to reach unanimous

agreement on a particular matter, within [\*\*\*] days after the JSC first meets to consider such matter, or such later date as may be mutually acceptable to the Parties (each such matter, a "<u>Disputed Matter</u>"), then:

- 7.3.5.1. Pfizer will have final decision making authority in relation to all decisions applicable to the Execution Task where the Decision Making Right is allocated to Pfizer as set out in Schedule 7.3.5; and
- 7.3.5.2. BioNTech will have final decision-making authority in relation to all decisions applicable to the Execution Task where the Decision Making Right is allocated to BioNTech as set out in Schedule 7.3.5; and
- 7.3.5.3. all other Disputed Matters (including those for which the Decision Making Right is identified as Mutual) shall be subject to the Parties reaching unanimous or mutual consent (including in respect of the Development Budget).

The Parties agree that the JSC will further refine the details of the decision-making rights and processes in accordance with Schedule 7.3.5 and the terms of this Agreement.

7.3.6. Limits on JSC Authority. Notwithstanding any provision of this Section 7 to the contrary, (a) each Party will retain the rights, powers and discretion granted to it under this Agreement and no such rights, powers, or discretion will be delegated to or vested in the JSC unless such delegation or vesting of rights is expressly provided for in this Agreement or the Parties expressly so agree in writing, (b) except with respect to modifications to the Research and Development Plan or Manufacturing Plan permitted as set forth in Section 7.3.4.5, the JSC will not have the power to amend this Agreement or otherwise modify or waive compliance with this Agreement in any manner and (c) neither Party will require the other Party to (i) breach any obligation or agreement that such other Party may have with or to a Third Party to the extent such obligation or agreement existed prior to the Effective Date or (ii) perform any activities that are materially different or greater in scope or more costly than those provided for in the Research and Development Plan then in effect. For avoidance of doubt, a joint committee will be formed under the Commercialization Agreement to provide operational and strategic oversight of the Commercialization.

7.3.7. **JSC Term.** The JSC will be dissolved upon expiration of the Term.

### 7.4. Materials and Permitted Activities.

7.4.1. **Transfer**. From time to time during the Term, Pfizer shall provide BioNTech with tangible chemical or biological materials (the "<u>Pfizer Materials</u>") and BioNTech may provide Pfizer with BioNTech Materials for the other Party's use in accordance with binding parts of the Research and Development Plan. The Party providing its Materials represents and warrants to the other Party that, as of the date of delivery of the Material (a) [\*\*\*], (b) [\*\*\*] and (c) [\*\*\*]. [\*\*\*].

7.4.2. **Title to Materials**. All right, title and interest in and to the providing Party's Materials (including any modifications or progeny thereof) will remain the sole and exclusive property of such Party notwithstanding the transfer to and use by other Party of the same.

- 7.4.3. **Permitted Activities.** Notwithstanding anything to the contrary in this Agreement save for each Party's exclusivity obligations and restrictions (including those at Sections 3.1 and 3.10), nothing in this Agreement shall be deemed to prevent or restrict in any way the ability of either Party or its Affiliates to conduct any activities in the Territory, which activities would be allowed under any safe harbor, research exemption, government or executive declaration of urgent public health need, or similar right available in law or equity if conducted by a Third Party.
- 7.4.4. **Return of Proprietary Materials**. Upon termination or expiration of the Term, each Party receiving the other Party's Materials hereunder shall, either destroy or return all unused Materials to the providing Party.

### 8. MANUFACTURING

- 8.1. <u>Development of Manufacture Process</u>. BioNTech and Pfizer shall jointly Develop a scalable process for Manufacture of Candidates and Products in the Field in the Territory in accordance with the binding parts of the Research and Development Plan and the Manufacturing Plan.
- 8.2. Manufacture of Candidates and Products. Each Party will use Commercially Reasonable Efforts to perform its obligations and activities identified under the binding parts of the Manufacturing Plan or as allocated to it by the JSC in a professional manner in accordance with any target dates set forth in the Manufacturing Plan. Further, each Party will perform its obligations under the binding parts of the Manufacturing Plan or as allocated to it by the JSC in compliance with all Laws applicable to its activities under the Manufacturing Plan. Pfizer and BioNTech will collaborate in the build-up of Manufacturing capacity for the Manufacturing of Candidates and Products for clinical and commercial purposes in accordance with the binding parts of the Manufacturing Plan and the terms and conditions set forth in this Section 8. The Manufacturing Plan may be modified by unanimous consent of the JSC pursuant to Section 7. Unless otherwise agreed in the Manufacturing Plan, at a minimum Pfizer will be responsible for the build-up of its Manufacturing site(s) in the USA for quantities of Product to be agreed as part of the Manufacturing Plan and the commercial supply agreement for such site, and at a minimum BioNTech will be responsible for the extension of its Manufacturing sites in Mainz and Idar-Oberstein for quantities of Product to be agreed as part of the Manufacturing Plan and the commercial supply agreement for such sites. [\*\*\*] The Manufacturing Plan may also consider one or both Parties engaging Third Party contract manufacturing organizations as a source of Manufacturing. In addition, promptly after the Effective Date, the Parties will agree on a technology transfer plan and continue to perform the technology transfer that the Parties have already started prior to the Effective Date to enable Manufacturing by Pfizer. For the avoidance of doubt, to the extent the technology transferred under this Agreement is identical to the technology to be transferred pursuant to the Flu Collaboration License, the Parties s

8.3. <u>Quality Requirements</u>. Each Party that undertakes or subcontracts any Manufacturing activities in respect of the Candidates or Products, whether for the purposes of this Agreement, the Clinical Trials or pursuant to the commercial supply agreements shall ensure that all Manufacturing activities are undertaken in accordance with (a) applicable GxP standards, applicable Laws, and other regulatory and manufacturing good practice (including record and sample keeping, deviation reporting, testing and quality requirements); and (b) the requirements of the applicable Quality Agreement.

#### 8.4. Manufacturing Agreements.

- 8.4.1. **Clinical Supply**. Within [\*\*\*] following the Effective Date, the Parties shall enter into an agreement for clinical supply, as required to ensure the Clinical Trials planned can proceed on the timelines set forth in the binding parts of the Research and Development Plan. All clinical supply of Candidates and Products shall be charged at the Manufacturing Costs. In addition, the Parties will negotiate in good faith and mutually agree on a Quality Agreement with respect to such clinical supply agreement.
- 8.4.2. **Commercial Supply**. Furthermore, the Parties will negotiate in good faith and mutually agree on one or more commercial supply agreement(s) and Quality Agreement(s) simultaneously with the negotiation of the Commercialization Terms. The commercial supply agreement(s) shall be in accordance with the following commercial terms:
  - 8.4.2.1. The Manufacturing Party shall be entitled to charge the Transfer Price for each batch of Product delivered in accordance with the relevant commercial supply agreement. Such Transfer Price shall be invoiced by the Manufacturing Party upon delivery of the Products and shall be payable by the other Party within [\*\*\*] from receipt of such invoice.
  - 8.4.2.2. The Transfer Price shall be adjusted on a yearly basis for all commercial supply agreements in accordance with relevant cost developments.
  - 8.4.2.3. The Parties will work together, subject to and observing applicable Laws, and agree the volumes of Product Materials to be purchased from Third Party suppliers for the purposes of this Agreement and to [\*\*\*] of either Party to source the other Party's requirements for such Product Materials for its Manufacturing activities pursuant to this Agreement and the Commercialization Agreement, which sourced Product Materials shall then be sold, at cost, to that other Party [\*\*\*].
  - 8.4.2.4. [\*\*\*]

8.4.3. The supply agreements to be entered into between the Parties pursuant to Sections 8.4.1 and 8.4.2, or the Commercialization Agreements if more appropriate, shall include appropriate accounting mechanisms to allow for true-up payments in respect of (i) Manufacturing Costs, including to account for any mark up on the Manufacturing Costs of Product Materials where permitted in the definition of Manufacturing Costs, and (ii) Manufacturing Variances.

8.5. <u>Allocation of Responsibilities</u>. Section 6.3.1 and Sections 6.3.4 to 6.3.6 shall apply *mutatis mutandis* in respect of each Party's responsibilities under the Manufacturing Plan.

#### 9. DEVELOPMENT, REGULATORY AND PHARMACOVIGILANCE.

#### 9.1. Development Matters.

- 9.1.1. **Allocation of Development and Regulatory Responsibility.** The Development of Candidates and Products shall be conducted by the Parties, under the direction and oversight of the JSC (and, as applicable, the Joint Development Committee), in accordance with the applicable Research and Development Plan and Development Budget. Pursuant to the initial Research and Development Plan, the Parties shall identify a strategy for Development of the Candidates and Products in the Territory that identifies the Party that is leading the clinical Development of the Candidates or Products in a country in the Territory (the "Lead Development Party"). Notwithstanding the foregoing, the Parties have agreed that (a) Pfizer shall lead the clinical aspects of Development of Candidates and Products in the USA, and (b) BioNTech shall lead the clinical aspects of Development of Candidates and Products in the EU. BioNTech shall be the sponsor and IND/CTA holder for all Clinical Trials in the Territory, in each case, subject to a mutually agreeable strategy with respect to the Development of Candidates and Products. For any Clinical Trial for which Pfizer is the Lead Development Party (but is not the sponsor of such Clinical Trials), BioNTech shall have delegated to Pfizer operational and day-to-day Development activities, decision-making authority and responsibility for such Clinical Trial, including those activities described in Schedule 9.1.1, subject to a protocol approved by unanimous consent by the JSC. For avoidance of doubt, the Lead Development Party shall conduct its Development activities in collaboration with and with active review of the other Party.
- 9.1.2. **Appointment of Lead Development Party for Future Clinical Trials.** At any time during the term of this Agreement, the JSC may determine by mutual consent that additional clinical Development of the Candidate and Product are warranted and, in such event, unless otherwise agreed by the JSC, (a) Pfizer shall be the Lead Development Party for each additional Clinical Trial in the USA, (b) BioNTech shall be the Lead Development Party for each additional Clinical Trial in the EU and (c) the JSC shall mutually agree on the appointment of one of the Parties to be the Lead Development Party for each additional Clinical Trial on a Clinical Trial-by-Clinical Trial basis in a country or region in the Territory other than the USA and EU ("ROW"), and subject to the mutually agreed upon strategy.
  - 9.1.3. Clinical Trials. In respect of Clinical Trials for the Candidates or Products pursuant to this Agreement, the following shall apply:
    - 9.1.3.1. *GxP Standards*. Subject to Section 9.1.3.7, BioNTech as the sponsor for any Clinical Trial in respect of any Candidate or Product pursuant to this Agreement shall ensure the Clinical Trial is conducted in accordance with GxP and all applicable Laws, and will provide to the other Party any significant GxP or non-compliance issues relating to the protocol for such Clinical Trial, which arise or may be identified through monitoring,

9.1.3.2. *Monitoring Plans*. A high-level strategy for monitoring Clinical Trials in respect of any Candidate or Product pursuant to this Agreement will be agreed by the JSC within [\*\*\*] following the Effective Date. The Lead Development Party of the Clinical Trial will notify the other Party if there are any amendments required to such monitoring plan, and provide such other Party with an opportunity to review and comment on any such amendments, and any amendments shall only be made following approval by the JSC.

- 9.1.3.3. *IRB/IEC Approval*. BioNTech as the sponsor and Regulatory Approval holder of the Clinical Trials shall ensure that the Clinical Trial is approved by and subject to continuing oversight by an appropriate Institutional Review Board (IRB) or Independent Ethics Committee (IEC), except that BioNTech shall delegate this responsibility to Pfizer for any Clinical Trial for which Pfizer is the Lead Development Party. The Lead Development Party shall provide documentation of both the initial IRB/IEC approval of the final protocol to the other Party and annual renewals of that approval if such renewals are required. To the extent a Party receives notice of any withdrawal or suspension of IRB/IEC approval during the term of this Agreement, it will promptly inform the other Party
- 9.1.3.4. Informed Consent. BioNTech as the sponsor and Regulatory Approval holder for each applicable Clinical Trial will obtain informed consent for each Clinical Trial subject in accordance with the applicable informed consent document and applicable Law and will inform and obtain express consent from each Clinical Trial subject that the data arising from such Clinical Trial may be used in accordance with the terms of this Agreement (including its export from the European Union and its processing by Pfizer or other Third Parties in accordance with the terms of this Agreement and Law), provided however, that BioNTech shall delegate this responsibility to Pfizer for those Clinical Trials for which Pfizer is the Lead Development Party. Notwithstanding the foregoing, the Lead Development Party will share the informed consent document with the other Party for such other Party's review and comment prior to its use in a Clinical Trial in a country in the Territory.
- 9.1.3.5. *Sponsorshi*p. Where the Lead Development Party (or its Affiliate or designee) is not the sponsor of a Clinical Trial or Regulatory Approval holder, such Lead Development Party shall not represent to any Third Party, including any Clinical Trial subjects, that the Lead Development Party or its Affiliates are a sponsor.
- 9.1.3.6. *Reporting.* BioNTech is solely responsible for any and all safety reporting and regulatory obligations associated with the conduct of the Clinical Trial for which it is the sponsor, including, but not limited to, obtaining and maintaining Regulatory Approvals for the conduct of the Clinical Trials, provided, however, that BioNTech shall delegate the safety reporting and regulatory obligations associated with the conduct of each Clinical Trial in the Territory to Pfizer subject to Section 9.3.

9.1.3.7. *Delegation.* Notwithstanding the responsibilities of BioNTech as IND/CTA holder or sponsor of Clinical Trials, where Pfizer is the Lead Development Party for a Clinical Trial Pfizer shall conduct its activities in compliance with GxP and applicable Law with respect to each of the activities which have been delegated to Pfizer pursuant to Schedule 9.1.1.

# 9.2. Regulatory Matters.

- 9.2.1. **Lead Development Party.** The JSC shall agree on a strategy to allocate operational responsibility for regulatory activities relating to each Candidate or Product to a Lead Development Party by reference to the country or region within the Territory for which that Party is to act as the Lead Development Party in respect of a Clinical Trial for one or more Candidates or Products. The JSC's initial allocation shall be that Lead Development Party for regulatory activities relating to each Candidate or Product in the EU shall be BioNTech, and the Lead Development Party for regulatory activities relating to each Candidate or Product in the USAshall be Pfizer. Subject to the JSC's mutual consent to seek Regulatory Approval in one or more countries or regions in the ROW, Pfizer shall be the Lead Development Party for regulatory activities relating to each Candidate or Product in such country or region in the ROW, the Party that wishes to seek Regulatory Approval in such country or region shall be entitled to be the Lead Development Party for regulatory activities relating to each Candidate or Product in such country or region and seek such Regulatory Approval at its own cost. The JSC may vary from the foregoing allocations by mutual consent. The other Party shall cooperate with the Lead Development Party, at its reasonable request, with respect to any regulatory matters for which the Regulatory Approval holder is responsible or to whom regulatory matters have been delegated.
- 9.2.2. **Regulatory Communications and Filings.** Pfizer shall prepare, file in BioNTech's name, diligently prosecute to grant, and maintain all applications for Regulatory Approvals ("Marketing Authorization Applications") and all Regulatory Approvals obtained therefrom in respect of any Candidates or Products in USA and, subject to Section 9.2.1, the ROW. BionTech shall prepare, file in BioNTech's name, diligently prosecute to grant, and maintain all applications for Marketing Authorization Applications and all Regulatory Approvals obtained therefrom in respect of any Candidates or Products in EU. The JSC may vary from the foregoing allocations by mutual consent. In accordance with Section 9.2.1, each Party shall cooperate with the other Party with respect to any and all regulatory matters for which the other Party is responsible pursuant to this Agreement or the Research and Development Plan. Unless exigent action is required with respect to a given filing before a Regulatory Authority concerning a Candidate or Product, or a material communication with a Regulatory Authority concerning the same, the Party submitting such Marketing Authorization Application shall provide the other Party with copies of all filings relating to such Marketing Authorization Application prior to submission within a reasonable amount of time (but not less than [\*\*\*] Business Days) to allow such Party to review and comment on such filings, and the Party submitting such Marketing Authorization Application shall consider all comments and proposed revisions from the other Party in good faith prior to submission. The Party responsible for filing such Regulatory Approvals shall consult with the other Party regarding, and keep the other Party informed of, the status of the preparation of all Marketing Authorization Applications and the prosecution thereof, including any material communications

that it receives with respect to the same. Upon request of the other Party, the Lead Development Party responsible for filing applications for such Regulatory Approvals shall provide to the other Party copies of all final Marketing Authorization Applications and filings relating thereto that it submits. The foregoing provisions of this Section 9.2.2 shall also apply to material and substantive communications with Regulatory Authorities.

- 9.2.3. **Regulatory Meetings.** The Lead Development Party shall consult with the other Party reasonably in advance of the date of any anticipated meeting with a Regulatory Authority relating to any Marketing Authorization Applications or Regulatory Approvals in respect of any Candidate or Product and shall consider any timely and reasonable recommendations made by the other Party in preparation for such meeting. The Parties agree that Pfizer, as the Lead Development Party for the regulatory activities in the USA and ROW shall lead interactions with the Regulatory Authority in the USA and ROW, while BioNTech as the Lead Development Party for the EU, shall lead interactions with the Regulatory Authority in Germany and the EU. The Parties agree that the Party who has been appointed by the JSC as the Lead Development Party shall lead interactions with respect to countries or regions in the Territory. Upon the request of the other Party, and to the extent legally permissible and not opposed by the relevant Regulatory Authority, the Lead Development Party shall permit the other Party to attend any and all meetings with the applicable Regulatory Authority concerning the Candidate or Product. [\*\*\*]
- 9.2.4. **Manufacturing Matters.** Where Pfizer is the Lead Development Party and responsible for preparing the filings for Regulatory Approval, BioNTech shall provide all reasonable assistance to Pfizer in such filings, including preparation of the CMC portions of the Common Technical Document in English and supporting ancillary cGMP documents and analytical data as required to meet specific regulatory filing and approval requirements. Each Party shall promptly provide the other with copies of material written correspondence as reasonably necessary to permit each Party to comply with its relevant regulatory obligations described in the Agreement or as otherwise reasonably requested.
- 9.2.5. Ownership of Regulatory Filings, Market Authorization Approvals and Pricing and Reimbursement Approvals. Unless otherwise required under applicable Law or determined by unanimous consent of the JSC (or the JCC with respect to Commercialization Agreement, as applicable), all Regulatory Approvals directed to a Candidate or Product in a country in the Territory and all applications therefor shall be made or held in the name of and owned by BioNTech. Notwithstanding the foregoing BioNTech may, upon giving reasonable notice to Pfizer, elect to transfer to Pfizer or any of its Affiliates one or more Regulatory Approvals in the Territory directed to a Candidate or Product and Pfizer will not withhold its agreement to such transfer if Pfizer or any of its Affiliates is already Commercializing a Pfizer vaccine product in such country and is permitted to hold Regulatory Approvals in such country. Recognizing that the transfer of the foregoing responsibilities or the responsibilities described in 9.2.1 and 9.2.2 and Regulatory Approvals as the case may be requires time, coordination and effort, the Parties will agree a reasonable transition plan for each such transfer and during the transfer period BioNTech shall continue to perform its obligations as Lead Development Party or owner of the Regulatory Approval.

9.2.6. **Notice of Regulatory Investigation or Inquiry.** If any Regulatory Authority (i) contacts a Party with respect to the alleged improper Development, Manufacture, or Commercialization of a Candidate or Product in the Territory, (ii) conducts, or gives notice of its intent to conduct, an inspection at a Party's facilities used in the Development or Manufacturing of a Candidate or Product, or (iii) takes, or gives notice of its intent to take, any other regulatory action with respect to any activity of a Party that could reasonably be expected to adversely affect any Development, Manufacture or Commercialization activities with respect to a Candidate or Product in the Territory, then such Party shall promptly notify the other Party of such contact, inspection or notice. The inspected Party shall provide such other Party with copies of all pertinent information and documentation issued by any such Regulatory Authority within [\*\*\*] Business Days of receipt, and, to the extent practicable, the JSC or appropriate subcommittee. Such other Party shall have the right to (a) be present at any such inspection, and (b) review and comment upon in advance any responses of the inspected Party that pertain to a Candidate or Product or a Party's activities hereunder.

# 9.2.7. Pharmacovigilance and Pharmacovigilance Agreement.

- 9.2.7.1. As soon as practicably possible following the Signing Date the Parties shall form a Joint Safety Committee to (a) review and approve each investigator's brochure for the clinical Development of Candidates and Products, (b) review and approve all aggregated data Drug Safety Update Reports, annual IND reports, and other period reports to Governmental Authorities information regarding patient safety (including adverse drug) experiences that are or may be associated with Candidates or Products, (c) review, discuss and agree the outputs of each Party's periodic Candidate and Product related benefit/risk analysis, and (d) such other patient safety-related activities as the Parties may delegate to it from time to time.
- 9.2.7.2. So long as BioNTech holds the necessary INDs/CTAs/Regulatory Approvals and is acting as sponsor in a country or region in the Territory, BioNTech may initiate clinical Development of the Candidates and Products in the EU prior to the Parties entering into a pharmacovigilance agreement. In such circumstances BioNTech shall be responsible for collecting, monitoring, evaluating, sharing and reporting to applicable Governmental Authorities in the EU information regarding patient safety (including adverse drug) experiences that are or may be associated with Candidates or Products. BioNTech shall be responsible for maintaining a suitable safety database.
- 9.2.7.3. By no later than the approval of the Investigational New Drug (IND) for Candidate(s) with FDA, the Parties shall have entered into a pharmacovigilance agreement ("Pharmacovigilance Agreement") reflecting the terms set forth in Section 9.3 and Schedule 9.2.7.
- 9.2.7.4. Following the filing of the IND for Candidate(s) with FDA:

(a) should BioNTech require Pfizer to take over certain activities in relation to collecting, monitoring, evaluating, sharing and reporting to applicable Governmental Authorities, but excluding Ethics Committees, information regarding patient safety (including adverse drug) experiences that are or may be associated with Candidates or Products in the EU, the Parties shall agree and execute an amendment to the Pharmacovigilance Agreement to (i) reflect the additional activities and responsibilities the Parties have agreed Pfizer will perform in the EU, and (ii) set out the procedures the Parties have agreed upon to allow for the reconciliation of BioNTech's safety database with Pfizer's safety database. The effectiveness of the amendment shall be conditional upon BioNTech delivering to Pfizer (x) confirmation from the relevant Governmental Authorities in the EU that they have accepted an amendment to the clinical trial protocol for any on-going clinical trial of Candidates or Product in the EU to reflect the necessary changes (as agreed with Pfizer) in responsibilities and contact information for collecting, monitoring, evaluating, sharing and reporting of information regarding patient safety (including adverse drug) experiences, and (y) written confirmation from BioNTech that it has amended the relevant clinical trial agreements to reflect the change in pharmacovigilance provider and trained the investigators on the new reporting procedures; and,

- (b) BioNTech through their Agreement with Fosun shall ensure that Fosun, via BioNTech, deliver to Pfizer (x) a copy of a due diligence report on Fosun's safety data reporting system reasonably acceptable to Pfizer in terms of findings made, (y) a copy of the pharmacovigilance agreement between BioNTech and Fosun which, inter alia, provides for delivery to Pfizer of fully assessed, translated (into English) CIOMS forms for all SAEs: Death / life threatening SUSARs 5 Business Days from Day 0 (Day 0 being receipt by Fosun from the clinical investigator), or 10 days for all other SAEs, [\*\*\*] and (z) details of the quality management system used with Fosun to ensure that if late inbound reports are received BioNTech can request root cause analysis and implementation of corrective and preventive actions by Fosun. The Parties agree that prior to Fosun's commencement of clinical activities by Fosun, BioNTech shall have entered into a written agreement with Fosun, reflecting the foregoing.
- 9.2.7.5. The Pharmacovigilance Agreement and each amendment to it from time to time shall set forth the responsibilities and procedures for (i) 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 Candidates or Products in the countries covered by that agreement and (ii) providing regulatory information to and support of the other Party

with regard to regulatory obligations, provided, that, each such agreement shall include the following guiding principles: acting as BioNTech's delegate for regulatory interactions, Pfizer shall primarily control the regulatory process and regulatory interactions in the countries covered by that agreement, provided, however that the Parties shall work together collaboratively to further the purposes of the collaboration and the activities described in this Agreement. Subject to the proviso in the foregoing sentence, to the extent there is any conflict between the terms and conditions of the Pharmacovigilance Agreement (as amended from time to time) and this Agreement with respect to safety or regulatory matters, the Pharmacovigilance Agreement shall control.

- 9.2.8. **Audits.** Each Party shall have the right, at its sole cost and expense, to perform audits of the other Party's pharmacovigilance, regulatory, and environmental, health and safety activities concerning any Candidates or Products under this Agreement, including each Party's oversight of any Third Party contracted to perform pharmacovigilance, regulatory or environmental health and safety activities as outlined in this Agreement and in compliance with applicable Laws, which audit right is exercisable at any time during the Term. Upon request, BioNTech shall provide Pfizer with a copy if its latest audit report on Fosun's pharmacovigilance activities.
- 9.3. Global Safety Database and Safety Reporting, Subject to Section 9.2.7, Pfizer shall maintain the global safety database for the Candidates and Products pursuant to this Agreement and the Commercialization Agreement. Provided that (a) BioNTech (subject to Section 9.1) will be the Lead Development Party with respect to Clinical Trials conducted in the EU, (b) BioNTech will hold a safety database to meet its sponsor responsibilities and regulatory responsibilities in the EU and to hold safety data reports received from China; (c) information shall be exchanged between Pfizer and BioNTech as described in the Pharmacovigilance Agreement to ensure alignment of information between the databases and (d) BioNTech will delegate its responsibilities for the collection, processing, assessment and safety reporting to Regulatory Authorities for all Clinical Trial(s) conducted pursuant to the Research and Development Plan in the Territory upon the approval of the IND for Candidate(s) with FDA. Notwithstanding the foregoing, such responsibility can only be delegated to and Pfizer can only accept this responsibility if the Clinical Trial sites for the Candidates and Products are reporting the safety data, including all individual Serious Adverse Events, translated into English, to Pfizer and for so long as Pfizer has access to all safety data, including all individual Serious Adverse Events, translated into English for any and all active Clinical Trials for the Candidates and Products, including products identical to Candidates or Products conducted under the terms and conditions of the Fosun Agreement (or subsequent agreements with other development partners) to allow Pfizer to meet its regulatory obligations as Lead Development Party in the Territory.
- 9.4. <u>Product Complaints and Returns.</u> The Parties' rights and obligations with respect to non-conformance and returns of Products shall be governed by, as and to the extent applicable, the applicable supply agreement, the global Quality Agreement, or the Pharmacovigilance Agreement.
- 9.5. <u>Clinical Trial Register.</u> BioNTech shall, in accordance with Law and its internal policies, register, and publish the summaries and results of, Clinical Trials relating to the Candidate or Product on a clinical trial register maintained by it (or an equivalent register), or as otherwise required by Law. If Pfizer is the Lead Development Party for a Clinical Trial, Pfizer shall prepare such summaries and results in accordance with its internal policies and in a timely manner so as to allow the summaries and results to be published within the mandatory time period, and provide such summaries and results to BioNTech for review and comment. Pfizer will give reasonable consideration to any such comments. BioNTech shall publish such summaries and results on a clinical trial register maintained by it (or an equivalent register), within the mandatory time period.

- 9.6. <u>Regulatory Exclusivity.</u> The JSC shall oversee the process of applying for and securing exclusivity rights that may be available under the Law of countries in the Territory, including any data or market exclusivity periods such as those periods listed in the FDA's Orange Book or Purple Book (as applicable) or periods under national implementations of Article 10.1(a)(iii) of Directive 2001/EC/83 (including any pediatric exclusivity extensions or other forms of regulatory exclusivity that may be available), and all international equivalents.
- 9.7. <u>Liability</u>. Subject to Pfizer and its Affiliates compliance with the obligations set forth in Section 9.1.3.7 above, Pfizer and its Affiliates, employees, agents or representatives will not be liable to BioNTech or its Affiliates in respect of any act, omission, default or neglect on the part of Pfizer, its Affiliates, or their respective employees, agents or representatives in connection with the activities undertaken as a Lead Development Party where such activities are undertaken in good faith, unless liability arises from Pfizer's or its Affiliates, employees, agents or representatives gross negligence or willful misconduct.
- 9.8. <u>Objection Right</u>. Notwithstanding any other provision of this Section 9, as Regulatory Approval holder, BioNTech shall have the right to object to and oppose any intended action of Pfizer as Lead Development Party if BioNTech reasonably believes Pfizer's intended action to be contrary to applicable Law.
- 9.9. <u>Personal Data</u>. To the extent the Parties shall be required to share Personal Data in connection with this Agreement or the Commercialization Agreement, the Parties shall enter into a legally binding written agreement governing the Parties relationship and their processing activities as required by Applicable Data Protection Law.

### 10. INTELLECTUAL PROPERTY

- 10.1. <u>Patent Committee</u>. Within the first [\*\*\*] following the Effective Date, or as otherwise agreed by the Parties, the Parties will establish a patent committee (the "<u>Patent Committee</u>"), comprised of at least one (1) representative of BioNTech and at least one (1) representative of Pfizer (which representative may be replaced by either Party at any time through written notice to the other Party). The Patent Committee shall coordinate all activities in relation to Patent Rights applicable to the terms of this Agreement. In particular, the Patent Committee shall:
  - 10.1.1. coordinate all activities in relation to the filing and prosecution of Patent Rights relating to this Agreement pursuant to Sections 10.2.1 and 10.3.1 of this Agreement,
    - 10.1.2. discuss any actual, potential or suspected infringement of such Patent Rights pursuant to Section 10.4.1, and
    - 10.1.3. regularly review which BioNTech Patent Rights may be relevant to Candidates and Products.
  - 10.1.4. The Patent Committee shall meet (either in-person or by audio or video conference) as often as determined by the Patent Committee as well as upon the reasonable request of either Party. It is acknowledged that particularly in the case of any Enforcement Action the Patent Committee may need to meet at very short notice and be required to expedite and make decisions very quickly and the Parties shall procure that the Patent Committee shall meet urgently

as quickly as reasonably required in connection with any Enforcement Action. The Patent Committee will be chaired by a Patent Committee member chosen by mutual agreement. The Patent Committee shall operate in good faith and acting reasonably. Sections 7.3.2 and 7.3.3, unless otherwise mutually agreed between the Parties, shall apply *mutatis mutandis*. The Patent Committee will use good faith efforts to reach agreement on all matters properly brought before it. If, despite such good faith efforts, the Patent Committee is unable to reach unanimous agreement on a particular matter, such matter shall be escalated to the JSC for final resolution and decisions of the JSC in this regard must be made by unanimous consent.

- 10.2. Ownership of Intellectual Property.
  - 10.2.1. Ownership of Product Technology. [\*\*\*]
- 10.2.2. **Ownership of BioNTech Improvements and Pfizer Improvements**. As between the Parties, (a) BioNTech will own all BioNTech Improvements and (b) Pfizer will own all Pfizer Improvements.
- 10.2.3. Ownership of other Research and Development Program Technology. Except for BioNTech Improvements, Pfizer Improvements and [\*\*\*] the ownership of other Research and Development Program Technology, will be allocated based on inventorship as defined under the Laws of the United States. Notwithstanding the foregoing, during the Term, and without prejudice to Section 10.3 the Parties (through the Patent Committee) shall cooperate and discuss in good faith with respect to the timing, scope and filing of any Patent Rights claiming or disclosing any Research and Development Program Technology.
- 10.2.4. **Ownership of Joint Technology**. Subject to Section 10.2.1, 10.2.2 and 10.2.3, the Parties will jointly own any Joint Technology. Subject to (a) the grant of licenses or sublicenses under Section 3, (b) BioNTech's representations, warranties and covenants under Section 12 and (c) the Parties' other rights and obligations under this Agreement (including Section 3.10), each Party will be free to exploit, either itself or through the grant of licenses to Third Parties (which Third Party licenses may be further sublicensed), Joint Technology throughout the world without restriction, without the need to obtain further consent from or provide notice to the other Party, and without any duty to account or otherwise make any payment of any compensation to the other Party.
- 10.2.5. **Ownership of Other Intellectual Property**. Except as set forth in Sections 10.2.1, 10.2.4, 10.2.2 and 10.2.1, each Party will own all right, title and interest in and to any and all Know-How, Patent Rights or other Intellectual Property Rights that such Party owns as of the Effective Date or otherwise acquires during the Term. For the purposes of determining ownership under this Agreement, as applicable, inventorship will be determined in accordance with United States patent laws.
- 10.3. Patent Rights.
  - 10.3.1. Filing, Prosecution and Maintenance of Patent Rights.
    - 10.3.1.1. *Prosecution by BioNTech*. BioNTech will have the first right, and a Commercially Reasonable Efforts obligation, to file, prosecute and maintain the BioNTech Patent Rights owned by BioNTech or its Affiliates [\*\*\*] and Patent Rights claiming BioNTech Improvements (together the "BioNTech Prosecution Patent

Rights") at BioNTech's sole expense using counsel of its own choice reasonably acceptable to Pfizer in Australia, Canada, the member states of the European Patent Convention including the Major EU Market Countries, Japan, the United States, Brazil, Russia, India, Mexico and South Korea ("Key Patent Jurisdictions"). Upon request of Pfizer, BioNTech shall file one or more BioNTech Prosecution Patent Rights in one or more jurisdictions other than the Key Patent Jurisdictions ("Additional Patent Jurisdictions"), and BioNTech will have the first right, and a Commercially Reasonable Efforts obligation, to file, prosecute and maintain such BioNTech Prosecution Patent Rights in such Additional Patent Jurisdictions at Pfizer's sole expense (until such time as Pfizer elects not to maintain such Patent Rights in such Additional Patent Jurisdictions whereupon BioNTech can elect to abandon or surrender the same or to continue the prosecution and maintenance of such Patent Rights at its own expense) using counsel of its own choice reasonably acceptable to Pfizer. BioNTech will keep Pfizer advised on the status of the preparation, filing, prosecution, and maintenance of the Patent Rights included within BioNTech Prosecution Patent Rights in all the jurisdictions where filed. Further, in respect of any jurisdiction, BioNTech will (a) allow Pfizer a reasonable opportunity and reasonable time to review and provide comments to BioNTech's patent counsel regarding relevant substantive communications to BioNTech and drafts of any responses or other proposed substantive filings by BioNTech before any applicable filings are submitted to any relevant patent office (or Governmental Authority) with respect to any BioNTech Prosecution Patent Rights and (b) reflect any reasonable and timely comments offered by Pfizer in any final filings submitted by BioNTech to any relevant patent office (or Governmental Authority) with respect to any BioNTech Prosecution Patent Rights. If BioNTech elects not to file a Patent Right included in the BioNTech Prosecution Patent Rights in any Key Patent Jurisdiction or Additional Patent Jurisdiction or elects to cease the prosecution or maintenance of one or more Patent Rights included in the BioNTech Prosecution Patent Rights in any Key Patent Jurisdiction or Additional Patent Jurisdiction and, as relevant, no Third Party has agreed to continue the prosecution or maintenance of such Patent Rights under agreements concluded before the Effective Date, BioNTech will provide Pfizer with written notice of its decision not to file, prosecute or maintain not less than [\*\*\*] before any action is required to avoid abandonment or lapse. In the event of any such notice, if Pfizer elects to file or continue such prosecution or maintenance in the name of BioNTech at Pfizer's sole expense, (x) Pfizer shall be entitled to do so and take all steps in such prosecution and maintenance at its sole discretion; (y) BioNTech will reasonably cooperate to promptly transfer the necessary files and execute the necessary forms regarding such transfer and (z) Pfizer will keep BioNTech advised on the status of such filing, prosecution and maintenance and will reasonably consider any comments made by BioNTech in connection therewith. If Pfizer elects not to file or continue such prosecution or maintenance, then BioNTech may immediately abandon, allow to lapse, or omit to prosecute such Patent Right, as the case may be. BioNTech will promptly, and no later than [\*\*\*] after written request by Pfizer, by written notice to Pfizer update Schedule 12.3.4 to identify all BioNTech Patent Rights to be added thereto.

10.3.1.2. Other Patent Rights. Except as provided in Section 10.3.1.1, each Party will have the sole right, but not the obligation, to file, prosecute and maintain the Research and Development Program Patent Rights or other Patent Rights that it solely owns under this Agreement or to which it otherwise has control of prosecution rights in its sole discretion, provided that at a Party's reasonable request, the other Party will provide status or other requested information for any Research and Development Program Patent Right and will consider in good faith any recommendations made by such Party in regard to the filing, prosecution or maintenance of any such Patent Right.

- 10.3.1.3. Reference of Research and Development Program Know-How. If a Party chooses to file, and thereafter prosecute and maintain, Patent Rights after the expiration of the Term, including any extension to the Term, that Party may use or incorporate Research and Development Program Know-How in the filing or prosecution of such Patent Rights filed after the Term, if it determines in its sole discretion that it is necessary or useful to use or incorporate such Research and Development Program Know-How.
- 10.3.2. **Joint Patent Rights.** In the event the Parties make any Joint Know-How, the Parties will promptly meet to discuss and determine, based on mutual consent, whether to seek patent protection thereon. Neither Party will file any Joint Patent Right without mutual consent. Unless otherwise agreed between the Parties, if the Parties decide to seek patent protection for any Joint Know-How: (a) BioNTech will have the first right, but not the obligation, to prepare, file, prosecute and maintain any Joint Patent Right predominantly relating to the RNA Technology or RNA Process Technology throughout the world, and (b) Pfizer will have the first right, but not the obligation, to prepare, file, prosecute and maintain any other Joint Patent Right throughout the world, in each case of (a) and (b) with the respective provisions of Section 10.3.1.1 to apply mutatis mutandis except as provided in this Section 10.3.2. The non-filing Party will reimburse the filing Party for 50% of the costs reasonably incurred by the filing Party in preparing, filing, prosecuting and maintaining such Joint Patent Rights, which reimbursement will be made pursuant to, and within 75 days of, invoices (including supporting documentation) submitted by the filing Party to the non-filing Party no more often than once per Pfizer Quarter. The non-prosecuting Party will cooperate with the prosecuting Party in taking reasonable measures to control costs and non-prosecuting Party shall be responsible for 100% of (x) any fees or costs related to any correspondence of outside counsel with or instructions to outside counsel by such Party (or any of such Party's Representatives) which is independent of joint prosecution efforts, or (y) any patent office fees, and associated counsel/agent fees and costs, for extensions which are not incurred at the request of, and not due to the actions of, the prosecuting Party. If, once the Parties have agreed to prepare and file an application of Joint Patent Rights, either Party (the "Declining Party") at any time thereafter declines to participate in the preparation, filing, prosecution or maintenance of any Joint Patent Right or share in the costs of filing, prosecuting and maintaining any Joint Patent Right, on a country-by-country basis, the Declining Party will provide the other Party (the "Continuing Party") with 30 days prior written notice to such effect, in which event, the Declining Party will (A) have no responsibility with respect to the filing, prosecution or maintenance of the applicable Joint Patent Right after the end of such 30 day period, (B) have no responsibility for any expenses incurred in connection with such Joint Patent Right after the end of such 30 day period and (C) if

the Continuing Party elects to continue filing, prosecution or maintenance, the Declining Party, upon the Continuing Party's request, will execute such documents and perform such acts, at the Continuing Party's expense, as may be reasonably necessary (1) to assign to the Continuing Party all of the Declining Party's right, title and interest in and to such Joint Patent Right and (2) to permit the Continuing Party to file, prosecute and maintain such Joint Patent Right at its sole expense. Where such Joint Patent Right is assigned to Pfizer as the Continuing Party, BioNTech will retain a non-exclusive, sublicensable, perpetual, irrevocable, royalty-free, fully paid-up worldwide right and license to practice and exploit such Patent Right for any and all purposes excluding, during the Term, in the Field; and where such Joint Patent Right is assigned to BioNTech as the Continuing Party, it will be excluded from the definition of BioNTech Patent Rights, and Pfizer will retain a non-exclusive, sublicensable, perpetual, irrevocable, royalty-free, fully paid-up worldwide right and license to practice and exploit such Joint Patent Right for any and all purposes.

- 10.3.3. **Prosecution by Third Party Licensors**. Except in the ordinary course of filing continuation applications, BioNTech shall not decline to pay for or participate in the filing, prosecution or maintenance of any Patent Right under any BioNTech Third Party Agreement in any Key Patent Jurisdiction (or other country to the extent doing so may result in BioNTech's loss of license to such Patent Right in such country), to the extent BioNTech is obligated to pay for, or has the right to participate in, such filing, prosecution or maintenance, that is included in the BioNTech Patent Rights and that, in Pfizer's reasonable opinion, covers any Candidate, Product or [\*\*\*] in the Field in the Territory, and the loss of which would result in loss of right to or would materially diminish the overall protection of such Candidate or Product, without Pfizer's prior written consent, not to be unreasonably withheld or delayed.
- 10.3.4. **Patent Term Restoration and Extension**. Upon the request of either Party, the Parties will (through the Patent Committee) reasonably discuss patent term extension and supplemental protection certificate strategies in relation to Patent Rights Covering Candidates or Products at any time. Notwithstanding the above, within the time period specified by applicable Law upon receiving Regulatory Approval for a Product in any country in the Territory, [\*\*\*].
- 10.3.5. **Clarifications**. For clarity, prosecution under this Section 10.3 includes opposition, revocation and post-grant review proceedings before the granting patent office or other patent office proceedings ("<u>Prosecution Proceeding</u>"). If such Prosecution Proceedings are concurrent with Third Party litigation under Section 10.4 and are applicable to or part of a coordinated enforcement of such rights, the prosecuting Party and the enforcing Party shall work together and closely align their prosecution and enforcement strategy in accordance with Section 10.5 (including the right for one Party to have final control as stipulated in Section 10.5).
- 10.3.6. **Liability**. To the extent that a Party is obtaining, prosecuting or maintaining a Patent Right or otherwise exercising its rights under this Section 10.3, such Party, and its Affiliates, employees, agents or representatives, will not be liable to the other Party in respect of any act, omission, default or neglect on the part of any such Party, or its Affiliates, employees, agents or representatives, in connection with such activities undertaken in good faith.

10.3.7. **Recording.** If either Party deems it necessary or useful to register or record this Agreement or evidence of this Agreement with any patent office or other appropriate Governmental Authority(ies) in one or more jurisdictions, the other Party will reasonably cooperate to execute and deliver to such Party any documents accurately reflecting or evidencing this Agreement that are necessary or useful, in such Party's reasonable judgment, to complete such registration or recordation.

10.3.8. **Joint Research Agreement**. This Agreement shall be understood to be a joint research agreement under 35 U.S.C. § 103(c)(3) for pre-AIA Patent Rights and 35 U.S.C. § 100(h) for post-AIA Patent Rights entered into for the purpose of researching, identifying and Developing Candidates and Products.

#### 10.4. Enforcement of Patent Rights.

10.4.1. **Notification of Infringement and Decision about Enforcement Actions**. Each Party will promptly notify the other (through the Patent Committee) in the event of any actual, potential or suspected infringement of a patent under the BioNTech Patent Rights or Research and Development Program Patent Rights by any Third Party. In the event of any such notification, the Parties will (through the Patent Committee) discuss in good faith the relevant actual, potential and suspected infringement and the risks and chances of success as well as chances of settlement connected with the institution of any litigation or other step to remedy infringement (any such steps, or threat of or assertion or enforcement of a Patent Right being an "Enforcement Action") taking into account the possible uses of the relevant Patent Rights by each Party, its respective Affiliates or its or their licensees and the revenues relating to or impacted by such Patent Rights, with the goal to agree on whether or not any Enforcement Action should be taken and, if yes, to closely coordinate so far as reasonably possible their respective efforts and strategies. The Parties acknowledge that time shall be of the essence in connection with any Enforcement Action and each shall move urgently and expeditiously to discuss and seek agreement on any actual or proposed Enforcement Action.

10.4.2. **Enforcement of BioNTech Patent Rights and Product Patent Rights**. Subject to Section 10.4.1, and unless otherwise agreed between the Parties on a case-by-case basis, as between Pfizer and BioNTech, BioNTech shall have the first right, but not the obligation, to institute any Enforcement Action in connection with the BioNTech Patent Rights [\*\*\*] in the Field in the Territory (the "BioNTech Enforcement Patent Rights"), and any such Enforcement Action will be at BioNTech's expense including BioNTech indemnifying and holding harmless Pfizer and its Affiliates from and against any adverse cost award, where Pfizer or its Affiliates consent to join any such Enforcement Action upon BioNTech's request, or where required by Law or where Pfizer or its Affiliates are enjoined by the counterparty. BioNTech shall not name as a party Pfizer or its Affiliates in any Enforcement Action without Pfizer's prior written consent. In any event, BioNTech will not, without the prior written consent of Pfizer, enter into any compromise or settlement relating to such litigation that (a) admits the invalidity or unenforceability of any BioNTech Enforcement Patent Right or (b) requires BioNTech to abandon any BioNTech Enforcement Patent Right. Upon the request of BioNTech, Pfizer shall have the sole discretion to decide whether or not to join as a party in any such Enforcement Action, and where it elects to do so it shall, at BioNTech's expense, join and cooperate with BioNTech in such Enforcement Action. Pfizer will have the right to consult with, and provide comments to, BioNTech about such Enforcement Action (irrespective of Pfizer or its Affiliate being a party to such Enforcement

Action), and to participate in and be represented by independent counsel in such Enforcement Action at Pfizer's own expense, and BioNTech shall take into account any reasonable comments provided by Pfizer in such Enforcement Action. Neither Party will incur any liability to the other Party (other than that related to a Party's indemnification obligation pursuant to Section 15) as a consequence of any Enforcement Action initiated or pursued pursuant to this Section 10.4 or any unfavorable decision resulting therefrom, including any decision holding any BioNTech Enforcement Patent Rights invalid or unenforceable. Any infringement recoveries resulting from such litigation or steps relating to a claim of Third Party infringement, after deducting BioNTech's out of pocket expenses (including counsel fees and expenses including any adverse cost award) in pursuing such claim, will be treated as Gross Profits for the purposes of the Commercialization Agreement.

10.4.3. **Pfizer's Enforcement Rights**. In respect of an infringement of any BioNTech Enforcement Patent Right in the Field in the Territory in connection with a Competitive Product ("Competitive Product Infringement"), if, following (a) discussion of any potential Enforcement Action pursuant to Section 10.4.1 and (b) a subsequent written request by Pfizer to initiate any Enforcement Action in connection with such Competitive Product Infringement, BioNTech does not initiate any Enforcement Action in connection with such Competitive Product Infringement within thirty (30) days following receipt of such notices, or as soon as possible and in any event no later than ten (10) Business Days if preliminary injunction proceedings are a potential or likely recourse to remedy the infringement), or ten (10) days before the time limit, if any, set forth in the applicable Laws for the filing of such actions, Pfizer shall have the right, but not the obligation, in place of BioNTech to institute any Enforcement Action in connection with such Competitive Product Infringement and any such Enforcement Action will be at Pfizer's expense and the provisions set forth in the first paragraph of this Section 10.4.2 shall apply *mutatis mutandis*. Pfizer's rights with respect to an Enforcement Action for BioNTech Enforcement Patent Rights other than Product Patent Rights shall be limited to (i) Major Market Countries; (ii) Enforcement Actions in countries in which a Competitive Product (or part thereof) reasonably believed to be designated for any Major Market Country is Manufactured; and (iii) Enforcement Actions in Belgium, Ireland or the Netherlands that are in parallel with Enforcement Actions in any of the Major EU Market Countries. [\*\*\*]

10.4.4. **BioNTech Enforcement outside the Field and/or outside the Territory**. Subject to Section 10.4.1 and unless otherwise agreed between the Parties on a case-by-case basis, as between Pfizer and BioNTech, BioNTech shall have the sole right, but not the obligation, to institute any Enforcement Action outside the Field and/or outside the Territory in connection with any BioNTech Enforcement Patent Rights), and any such Enforcement Action will be at BioNTech's expense including BioNTech indemnifying and holding harmless Pfizer and its Affiliates from and against any adverse cost award, where Pfizer or its Affiliates consent to join any such Enforcement Action upon BioNTech's request, where required by Law or where Pfizer or its Affiliates are enjoined by the counterparty. BioNTech shall not name as a party Pfizer or its Affiliates in any Enforcement Action without Pfizer's prior written consent. In any event, BioNTech will not, without the prior written consent of Pfizer, enter into any compromise or settlement relating to such Enforcement Action that (i) admits the invalidity or unenforceability of any BioNTech Enforcement Patent Rights or (ii) requires BioNTech to abandon any BioNTech Enforcement Rights. Upon the request of BioNTech, Pfizer shall have the sole discretion to decide whether or not to join as a party in any such Enforcement Action, and where it elects to do so it shall, at BioNTech's expense, join and cooperate with BioNTech in such Enforcement Action.

Pfizer will have the right to consult with, and provide comments to, BioNTech about such Enforcement Action (irrespective of Pfizer or its Affiliate being a party to such Enforcement Action), and to participate in and be represented by independent counsel in such Enforcement Action at Pfizer's own expense, and BioNTech shall take into account any reasonable comments provided by Pfizer in such Enforcement Action. Neither Party will incur any liability to the other Party (other than that related to a Party's indemnification obligation pursuant to Section 15 or otherwise in this sub-section) as a consequence of any Enforcement Action initiated or pursued pursuant to this Section 10.4.3 or any unfavorable decision resulting therefrom, including any decision holding any BioNTech Enforcement Patent Rights invalid or unenforceable.

10.4.5. **Pfizer Patent Rights.** Pfizer shall have the sole right, but not the obligation, to institute litigation or take other steps to remedy infringement in connection with any field in respect of any Patent Rights that it solely owns including any Pfizer Patent Right. In the event that any such Patent Rights are based on inventions made or created solely or jointly by BioNTech, its Affiliates or its Representatives acting on BioNTech's behalf, BioNTech shall provide reasonable assistance to Pfizer at Pfizer's expense in connection with such litigation.

### 10.4.6. Biosimilar Notices.

- 10.4.6.1. BioNTech Cooperation. Upon Pfizer's request, BioNTech and Pfizer will use Commercially Reasonable Efforts to assist and cooperate with each other in (A) establishing a strategy for responding to requests for information from Regulatory Authorities and Third Party requestors and (B) preparing submissions responsive to any Biosimilar Notices received by Pfizer or BioNTech; provided that BioNTech will make the final decisions with respect to such strategy and any such responses.
- 10.4.6.2. Compliance with Biosimilar Notices. The MA Holder will have the sole right in its discretion to comply with the applicable provisions of 42 U.S.C. § 262(1) (or any amendment or successor statute thereto), any similar statutory or regulatory requirement enacted in the future regarding biologic products in the United States, or any similar statutory or regulatory requirement in any non-U.S. country or other regulatory jurisdiction, in each case, with respect to any Biosimilar Notice received from any Third Party regarding any Product that is being Commercialized in the Field in the Territory in the applicable jurisdiction, and the exchange of information between any Third Party and such MA Holder pursuant to such requirements; provided that, prior to any submission of information by MA Holder to a Third Party, the other Party will have the right to review the patent information included in such proposed submission, and to make suggestions as to any changes to such patent information that Pfizer reasonably believes to be necessary; provided further that MA Holder will determine the final content of any such submission. In the case of a Product approved in the United States under the PHS Act (or, in the case of a country in the Territory other than the United States, any similar Law), to the extent permitted by applicable Law, the MA Holder, as the sponsor of the application for the Product, will be the "reference product sponsor" under the PHS Act. The MA Holder will give written notice to the other Party of receipt of a Biosimilar Notice received by MA Holder with respect to a Product, and MA Holder will consult with the other Party

with respect to the selection of any Patent Rights to be submitted pursuant to 42 U.S.C. § 262(I) (or any similar law in any country of the Territory outside the United States); *provided* that the MA Holder will have final say on such selection of Patent Rights. Such other Party agrees to be bound and will cause its Affiliates and use Commercially Reasonable Efforts to cause all Third Party Licensors to be bound by the confidentiality provisions of 42 U.S.C. § 262(I)(1)(B)(iii). In connection with any action brought by such other Party under this Section 10.4.6, such other Party, upon the MA Holder's request, will reasonably cooperate and will cause its Affiliates and use Commercially Reasonable Efforts to cause all Third Party Licensors to reasonably cooperate with MA Holder in any such action, including timely commencing or joining in any action brought by MA Holder under this Section 10.4.6.

- 10.4.7. **Unified Patent Court.** In respect of BioNTech Enforcement Patent Rights, for each and every such Patent Right having effect anywhere within any member state that was or is, from time to time, a signatory to the UPC Agreement, BioNTech shall have the sole discretion to decide whether to (a) opt in or opt out (and to opt in again), pursuant to Article 83 of the UPC Agreement, of the Unified Patent Court system; and (b) elect if such Patent Rights should, during their prosecution, be designated as a Unitary Patent or a European Patent. The other Party shall promptly do all things necessary and execute all documents and make all necessary elections required to give effect to such decision(s) or election(s).
- 10.4.8. **Settlement Cross-Licensing.** If pursuant to a bona fide settlement of any Enforcement Action or Infringement Claim controlled by Pfizer, Pfizer, with BioNTech's prior written consent, which shall not be unreasonably withheld, conditioned or delayed, grants to a Third Party (that was a party to the Enforcement Action or Infringement Claim) any sublicense to any of the Patent Rights licensed to Pfizer under this Agreement in respect of that Third Party's Competitive Product, then Pfizer shall pay to BioNTech (a) at a minimum, if such sublicense includes any of the rights granted to Pfizer under a Current License or future BioNTech Third Party Agreement (subject to Sections 3), all royalties due by BioNTech to the relevant Third Party for such sublicense under any Current License and Future BioNTech Third Party Agreement in respect of licensed sales of such Third Party Competitive Product and (b) all other royalties received by Pfizer shall be deemed Gross Profits. For the avoidance of doubt, should the Third Party as part of the same agreement grant any cross-license to Pfizer (sublicensable to BioNTech for the purposes of this Agreement) for any Candidates or Products, such cross-license shall not be deemed "non-cash" consideration for the purpose of the Net Sales definition.
- 10.5. Other Actions by Third Parties. Separate from Prosecution Proceedings, each Party will promptly notify the other Party in the event of any legal action by any Third Party involving any BioNTech Enforcement Patent Rights of which it becomes aware, including any nullity, revocation, declaratory judgment, interference, *inter partes* reexamination, reexamination or compulsory license proceeding. The right to defend against any such action shall be with the Party controlling the filing, prosecution and maintenance of the affected Patent Right (as determined in accordance with Section 10.3.1), and the provisions of Section 10.3.1 shall apply *mutatis mutandis* in respect of such defense. If any such action has been instituted by any Third Party in response to, or in connection with, any Enforcement Action pursuant to Section 10.4, or any Enforcement Action is to be pursued as a consequence of such action being instituted by any Third Party, the Party controlling the Enforcement Action and the Party controlling the defense shall work together and closely align their enforcement and defense strategy, which may include the (joint) appointment of the same patent counsel for all concurrent Third Party litigation and patent office proceedings taking into account the impact on enforcement and potential for revenues relating to such

Patent Rights, and in the absence of agreement, the enforcing Party shall have the final say over the Prosecution Proceedings in so far as the Prosecution Proceeding will adversely impact the ongoing enforcement of such right, subject to having given good faith consideration to the comments and suggestions of the prosecuting Party. Further details of such joint proceeding may be agreed between the Parties from time to time.

10.6. <u>Purple Book Listings</u>. To the extent of any BioNTech Enforcement Patent Rights, the Parties shall cooperate with each other to enable BioNTech to make filings with Regulatory Authorities, as required or allowed in connection with (a) in the United States, the FDA's Purple Book and the Biologics Price Competition and Innovation Act and (b) outside the United States, under the national implementations of Article 10.1(a)(iii) of Directive 2001/EC/83 or other international equivalents thereof within the Territory. Pfizer shall consider BioNTech's reasonable requests in connection therewith, including meeting any submission deadlines, in each case, to the extent required or permitted by applicable Law.

### 10.7. Allegations of Infringement and Right to Seek Third Party Licenses.

- 10.7.1. **Notice.** If either Party becomes aware that the Development, Manufacture, Commercialization or use of any Candidate or Product, the practice of any BioNTech Technology or Research and Development Program Technology in the Field, or the exercise of any other right granted by BioNTech to Pfizer or any of its Affiliates or Sublicensees hereunder (collectively, the "<u>Licensed Activities</u>") is alleged by a Third Party to infringe, misappropriate or otherwise violate such Third Party's Patent Rights or other Intellectual Property Rights or either Party otherwise identifies any Third Party Patent Rights or other Intellectual Property Rights that may be relevant to such Licensed Activities (collectively, an "<u>FTO Action</u>"), such Party will, as soon as reasonably practicable, notify the other Party in writing and the Parties will discuss the FTO Action in good faith to determine and agree upon a resolution of the same.
- 10.7.2. **Option to Negotiate.** If the Parties determine that to resolve the FTO Action it is necessary or useful to obtain a license under one or more Patent Rights or other Intellectual Property Rights Controlled by a Third Party, then [\*\*\*]; will negotiate and enter into a license or other agreement with such Third Party in close coordination with the other Party. If the Parties do not agree that a license from a Third Party is necessary or useful to resolve the FTO Action, the Party who considers a license is necessary or useful to resolve the FTO Action shall be entitled to negotiate and enter into a license or other agreement with such Third Party, but shall do so keeping the other Party reasonably informed. [\*\*\*] [\*\*\*].

10.8. Third Party Infringement Suits. Each of the Parties will promptly notify the other in the event that any Third Party files any suit or brings any other action alleging patent infringement by Pfizer or BioNTech or any of their respective Affiliates or Sublicensees with respect to the Development, Manufacture, Commercialization or use of any Candidate or Product or the practice of any BioNTech Technology or Research and Development Program Technology (any such suit or other action referred to herein as an "Infringement Claim"). In the case of any Infringement Claim against Pfizer (including its Affiliates or Sublicensees) alone, or against both Pfizer and BioNTech (including their respective Affiliates), Pfizer will have the right, but not the obligation, to control the defense of such Infringement Claim, including control over any related litigation, settlement, appeal or other disposition arising in connection therewith. BioNTech, upon request of Pfizer, agrees to cooperate with Pfizer at Pfizer's expense. BioNTech will have the right to consult with Pfizer concerning any Infringement Claim and to participate in and be represented by independent counsel in any associated litigation in which BioNTech is a party at BioNTech's own expense. If Pfizer elects to control the defense of any Infringement Claim and BioNTech is obligated under Section 15.3 to indemnify Pfizer (including any Pfizer Indemnified Party) with respect to such Infringement Claim, then (a) Pfizer will bear 100% of its own attorneys' fees incurred in investigating, preparing or defending such Infringement Claim notwithstanding the provisions of Section 15.3 and (b) BioNTech will otherwise indemnify Pfizer and any applicable Pfizer Indemnified Parties to the full extent provided for under Section 15.3, provided that Pfizer shall not enter into any compromise or settlement with the Third Party in respect of such Infringement Claim without BioNTech's prior written consent (such consent not to be unreasonably withheld, conditioned or delayed) where such compromise or settlement requires the payment of monetary penalty or damages that are indemnified by BioNTech under this Agreement. In the case of any Infringement Claim against BioNTech alone, Pfizer will have the right to consult with BioNTech concerning such Infringement Claim and Pfizer, upon request of BioNTech, will reasonably cooperate with BioNTech at BioNTech's expense. Neither Party will enter into any compromise or settlement in respect of an Infringement Claim admitting or implying that the Development, Manufacture, Commercialization or use of any Candidate or Product or the practice of any BioNTech Technology or Research and Development Program Technology infringes Third Party patents without the other Party's written consent.

# 11. CONFIDENTIALITY

11.1. Confidentiality. Except to the extent expressly authorized by this Agreement, the Parties agree that, during the Term and for [\*\*\*] years thereafter (except to the extent a longer period is required by a Current License applicable for such Confidential Information disclosed pursuant to that Current License), each Party (the "Receiving Party") receiving any Confidential Information of the other Party (the "Disclosing Party") hereunder will: (a) keep the Disclosing Party's Confidential Information confidential; (b) not disclose, or permit the disclosure of, the Disclosing Party's Confidential Information; and (c) not use, or permit to be used, the Disclosing Party's Confidential Information for any purpose other than as expressly permitted under the terms of this Agreement (including under any license or right of use granted hereunder).

#### 11.2. Authorized Disclosure.

11.2.1. **Disclosure to Party Representatives**. Notwithstanding the foregoing provisions of Section 11.1, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party to the Receiving Party's Representatives who (a) have a need to know such Confidential Information in connection with the performance of the Receiving Party's obligations or the exercise of the Receiving Party's rights under this Agreement and (b) have agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Section 10.1.

11.2.2. **Disclosure to Third Parties**. Notwithstanding the foregoing provisions of Section 11.1, each Party may disclose Confidential Information belonging to the other Party to the extent such disclosure is reasonably necessary:

- 11.2.2.1. to Governmental Authorities to the extent useful, to (a) obtain or maintain Regulatory Approvals for any Candidate or Product within the Territory; or (b) obtain or maintain Regulatory Approvals for a product comprising a Candidate in the Field outside of the Territory; and (c) in order to respond to inquiries, requests or investigations (i) relating to Candidates or Products or this Agreement within the Territory; or (ii) relating to any product comprising a Candidate in the Field outside of the Territory; *provided*, *however*, that BioNTech may not disclose any Pfizer Confidential Information to Fosun or its Affiliates without the prior written consent of Pfizer, other than to the extent necessary for Fosun or its Affiliates (or such other collaboration partner in or for China) to undertake fill/finish of a product identical to any Product in China or to comply with information requirements of the China National Medical Products Administration relating to such product required under applicable Law, in each case so far as such use is licensed under Sections 3.4.2(b) or 3.4.4(b);
- 11.2.2.2. to outside consultants (including any professional advisor), potential acquisition partners (including any potential successors in interest), private investors or financing sources, contractors, advisory boards, managed care organizations, and non-clinical and clinical investigators, in each case to the extent useful to develop, register or market any Candidate or Product within the Territory; *provided* that the Receiving Party will obtain the same confidentiality obligations from such Third Parties as it obtains with respect to its own similar types of confidential information;
- 11.2.2.3. in connection with filing or prosecuting Research and Development Program Patent Rights, Product Patent Rights or Trademark rights as permitted by this Agreement;
- 11.2.2.4. in connection with any prosecution or litigation actions or defenses undertaken pursuant to Section 10 or any other litigation directly related to a Candidate or Product in the Field in the Territory;
- 11.2.2.5. subject to the provisions of Section 11.5.2, in connection with or included in scientific presentations and publications relating to Candidates or Products, including abstracts, posters, journal articles and the like, and posting results of and other information about clinical trials to clinicaltrials.gov or PhRMA websites;
- 11.2.2.6. by either Party in respect of Confidential Information belonging to the other Party (including the terms of the Agreement) to any bona fide or potential subcontractor under this Agreement in connection with the Development of the Candidate or Product in the Territory, in each case who has agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Section 10.1; and

11.2.2.7. to the extent necessary or useful in order to enforce its rights under this Agreement.

Notwithstanding anything herein to the contrary, each Party acknowledges and agrees that the use by a Party of the other Party's Confidential Information disclosed under the Flu Collaboration License in the performance of this Agreement is not a breach of the confidentiality obligations under this Agreement or the Flu Collaboration License, and vice versa. If a Party deems it reasonably necessary to disclose Confidential Information belonging to the other Party pursuant to clause (a) or any of clauses (c) through (e) of this Section 11.2.2, then the Disclosing Party will to the extent possible give reasonable advance written notice of such disclosure to the other Party and take such measures to ensure confidential treatment of such information as is reasonably required by the other Party, at the other Party's expense.

- 11.3. SEC Filings and Other Disclosures. Either Party may disclose the terms of this Agreement and make any other public written disclosure regarding the existence of, or performance under, this Agreement, to the extent required, in the reasonable opinion of such Party's legal counsel, to comply with (a) applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or (b) any equivalent Governmental Authority, securities exchange or securities regulator in any country. Before disclosing this Agreement or any of the terms hereof pursuant to this Section 11.3, the Parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure, with the Party disclosing pursuant to this Section 11.3 providing as much advance notice as is feasible under the circumstances, and giving consideration to the comments of the other Party. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 11.3, such Party will, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms, as may be reasonably requested by the other Party and limit its disclosure of such Confidential Information to only that required to comply with applicable Law.
- 11.4. <u>Residual Knowledge Exception</u>. Notwithstanding any provision of this Agreement to the contrary, Residual Knowledge will not be considered Confidential Information for purposes of this Section 10.1; <u>provided</u> that, for clarity, a Party's rights to Residual Knowledge hereunder shall not include the right to practice any Patent Right owned or Controlled by the other Party that claims such Residual Knowledge unless otherwise expressly granted in another provision of this Agreement or in another agreement between the Parties.

### 11.5. Public Announcements; Publications.

- 11.5.1. **Announcements**. Except as may be expressly permitted under Section 11.3, neither Party will make any public announcement regarding this Agreement without the prior written approval of the other Party. The Parties agree that the Parties will issue a mutually agreed upon joint press release regarding the signing of this Agreement following the Signing Date.
- 11.5.2. **Publications**. During the Term, each Party will submit to the other Party for review and approval (such approval not to be unreasonably withheld, delayed or conditioned) any proposed publication or public presentation proposed by a Party or its Affiliates or any of their respective Representatives that relates to the activities conducted under this Agreement, including the Research and Development Plan; provided that notwithstanding the requirement for approval (a) neither Party shall be prevented from submitting any publication or making a presentation in respect of a Clinical Trial for which the Party is either the IND holder or the Lead Development Party to

the extent such publication or presentation is required under applicable Law or such Party's internal publication policies, but such publishing Party shall not disclose the other Party's confidential information in respect of its technology and Intellectual Property Rights, and shall take on board and reasonably consider any reasonable requests of the other Party with respect to such proposed publication or presentation; (b) the Party whose approval is sought shall not unreasonably withhold or condition such approval; and (c) nothing shall prohibit a Party from making any press release or statement where required pursuant to applicable Law or stock exchange rule, subject to such publishing Party shall take on board and reasonably consider any reasonable requests of the other Party with respect to such proposed publication or presentation. Each Party's review and approval will be conducted only for the purposes of identifying if confidential information should be modified or deleted so as to preserve the value of the technology owned by such Party or its Affiliates and the rights granted to each Party hereunder. Written copies of such proposed publication or presentation required to be submitted hereunder will be submitted as soon as practically possible before submission for publication or presentation (the "Review Period"). The reviewing Party will provide its comments with respect to such publications and presentations within 7 Business Days of its receipt of such written copy. The Review Period may be extended for an additional 10 Business Days in the event a Party can, within 7 Business Days of receipt of the written copy, demonstrate reasonable need for such extension including for the preparation and filing of patent applications. Each Party will comply with standard academic practice regarding authorship of scientific publications and recognition of contribution of other parties in any publication governed by this Section 11.5.2, including International Committee of Medical Journal Editors standards rega

11.6. Non-Disclosure in China. For the avoidance of doubt, nothing in this Agreement authorizes or permits BioNTech to disclose to Fosun, its Affiliates or any other collaboration partner in or for China any Pfizer Confidential Information without the prior written consent of Pfizer other than to the extent necessary for Fosun or its Affiliates (or such other collaboration partner in or for China) to undertake fill/finish of a product identical to any Product in China or to comply with information obligations required by the China National Medical Products Administration relating to such product in accordance with applicable Law, in each case so far as such use is licensed under Sections 3.4.2(b) or 3.4.4(b).

11.7. Obligations in Connection with Change of Control. If a Party is subject to a Change of Control or if a Party or any of its Affiliates acquires or merges with a Third Party during the Term ("Change of Control Party"), such Change of Control Party will, and it will cause its Representatives to, ensure that no Confidential Information of the other Party is released to (a) any Affiliate of the Change of Control Party that becomes an Affiliate of the Change of Control Party as a result of the Change of Control or (b) any other Representatives of the Change of Control Party (or of the relevant surviving entity of such Change of Control) who become Representatives of the Change of Control Party as a result of the Change of Control, unless such Affiliate or other Representatives, as applicable, have signed individual confidentiality agreements which include equivalent obligations to those set out in this Section 11. Upon occurrence of a Change of Control, the Change of Control Party will promptly notify the other Party, share with the other Party the policies, procedures and technical and organizational measures it plans to implement in order to protect the confidentiality of the other Party's Confidential Information prior to such implementation and make any adjustments to such policies and procedures that are reasonably requested by the other Party.

#### 12. REPRESENTATIONS AND WARRANTIES

- 12.1. Mutual Representations and Warranties. Each of BioNTech and Pfizer hereby represents and warrants to the other Party that:
  - 12.1.1. it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;
- 12.1.2. the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite action under the provisions of its charter, bylaws and other organizational documents, and does not require any action or approval by any of its shareholders or other holders of its voting securities or voting interests;
  - 12.1.3. it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder;
- 12.1.4. this Agreement has been duly executed and is a legal, valid and binding obligation on each Party, enforceable against such Party in accordance with its terms; and
- 12.1.5. the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any Binding Obligation existing as of the Effective Date.
- 12.2. <u>Mutual Covenants</u>. In addition to the covenants made by the Parties elsewhere in this Agreement, each of BioNTech and Pfizer hereby covenants to the other Party that, from the Effective Date until expiration or termination of this Agreement it will perform its obligations under this Agreement in compliance with applicable Laws.
- 12.3. Representations and Warranties of BioNTech. BioNTech hereby represents and warrants to Pfizer that, unless otherwise disclosed in Schedule 12.3 (or otherwise as accepted to have been disclosed between BioNTech's external counsel and Pfizer's external counsel other than in writing), and provided that those provisions of the Current Licenses set forth in Schedule 1.36 shall be deemed disclosed against the representations and warranties given by BioNTech at sections 12.3.1, 12.3.2, 12.3.4, 12.3.10 and 12.3.11 of this Agreement and provided further that all disclosures made under the Flu Collaboration License shall be deemed disclosed also under this Agreement:
  - 12.3.1. as of the Signing Date, except with respect to BioNTech Technology Controlled by BioNTech pursuant to a Current License, BioNTech or its Affiliates are the sole and exclusive owner of the BioNTech Technology, and all BioNTech Technology is free and clear of any claims, liens, charges or encumbrances;
  - 12.3.2. as of the Signing Date, BioNTech has, and to its knowledge will have, the full right, power and authority to (a) grant all of the right, title and interest in the licenses and other rights granted or to be granted to Pfizer, Pfizer's Affiliates or Pfizer's Sublicensees under this Agreement and (b) perform its obligations under this Agreement;
  - 12.3.3. <u>Schedule 1.17</u> sets forth a true and complete list of all Candidates relevant to the Field discovered, developed or Controlled by BioNTech or its Affiliates on or prior to the Signing Date;
  - 12.3.4. as of the Signing Date, (a) Schedule 12.3.4 sets forth a true and complete list of all Patent Rights (i) owned or otherwise Controlled by BioNTech or its Affiliates or (ii) to which BioNTech or its Affiliates have been granted or otherwise transferred any right to practice under, in each case of (i) and (ii), that relate to the Candidates, the Products, the BioNTech Technology, or the Parties' activities in the Research and Development Program, (b) each such Patent Right is in full force and effect and, so far as BioNTech is aware, valid and enforceable, (c) BioNTech or

its Affiliates have timely paid, or caused the appropriate Third Parties to pay, all filing and renewal fees payable with respect to such Patent Rights; (d) BioNTech Controls all Patent Rights listed in <u>Schedule 12.3.4</u>; and (e) other than those licensed hereunder, there are no other Patent Rights owned or Controlled by BioNTech that Candidates or Products would infringe;

- 12.3.5. as of the Signing Date, BioNTech is not aware of any material adverse event, or medical or scientific concern or doubt regarding the safety, contraindications or effectiveness of the use of the BioNTech Technology or the Candidates that have not previously been disclosed in writing to Pfizer;
- 12.3.6. to BioNTech's knowledge as of the Signing Date, (a) no Third Party (i) is infringing any BioNTech Patent Right or (ii) has challenged or threatened in writing to challenge the ownership, scope, validity or enforceability of, or BioNTech's or any Current Licensor's rights in or to, any BioNTech Patent Right (including, by way of example, through the institution or written threat of institution of interference, nullity or similar invalidity proceedings before the United States Patent and Trademark Office or any analogous foreign Governmental Authority);
- 12.3.7. as of the Signing Date, BioNTech has independently developed all BioNTech Know-How and BioNTech Materials or otherwise has a valid right to use, and to permit Pfizer, Pfizer's Affiliates and Pfizer's Sublicensees to use, the BioNTech Know-How and BioNTech Materials for all permitted purposes under this Agreement;
- 12.3.8. except with respect to BioNTech Technology Controlled by BioNTech pursuant to a Current License, BioNTech or its Affiliates have obtained from all inventors of BioNTech Technology existing as of the Signing Date, valid and enforceable agreements assigning to BioNTech or its Affiliates each such inventor's entire right, title and interest in and to all such BioNTech Technology (except to the extent applicable Law provides that all right, title and interest in and to such BioNTech Technology automatically vests in BioNTech or its Affiliates by operation of law);
- 12.3.9. in respect of BioNTech Technology solely or jointly owned by BioNTech existing as of the Signing Date, neither BioNTech nor its Affiliates are subject to any funding agreement with any government or Governmental Authority;
- 12.3.10. as of the Effective Date (a) there are no BioNTech Third Party Agreements other than the Current Licenses set forth in Schedule 1.36, (b) true and complete copies of each Current License (other than the Fosun Agreement) have been provided to Pfizer, (c) except as provided in the Current Licenses, no Third Party has any right, title or interest in or to, or any license under, any BioNTech Technology in the Field, (d) no rights granted by or to BioNTech or its Affiliates under any Current License conflict with any right or license granted to Pfizer or its Affiliates hereunder and (e) BioNTech and its Affiliates are in compliance in all material respects with all Current Licenses;
- 12.3.11. as of the Signing Date, to BioNTech's knowledge, the use by BioNTech or Pfizer (or their respective Affiliates or Sublicensees) of the BioNTech Technology in accordance with this Agreement, and the Development, Manufacture or Commercialization of those Candidates listed in Schedule 1.17 or Products incorporating such Candidates in accordance with this Agreement (a) does not and will not infringe any Patent Right of any Third Party or (b) will not infringe the claims of any published Third Party pending Patent Right when and if such claims issue;

12.3.12. as of the Effective Date, there is no (a) written claim, demand, suit, proceeding, arbitration, inquiry, investigation or other legal action of any nature, civil, criminal, regulatory or otherwise, pending or, to BioNTech's knowledge, made or threatened (irrespective of whether or not in writing) against BioNTech or any of its Affiliates or (b) judgment or settlement against or owed by BioNTech or any of its Affiliates, in each case in connection with the BioNTech Technology, the Current Licenses, any Candidate or Product or relating to the transactions contemplated by this Agreement;

- 12.3.13. as of the Signing Date, BioNTech and its Affiliates (a) have claimed and remunerated all employee inventions of their respective employees comprised within the GEIA Technology in accordance with the provisions of the GEIA; and (b) are entitled to unrestrictedly claim all rights to employee inventions of their employees comprised within the GEIA Technology;
- 12.3.14. as of the Signing Date, BioNTech has obtained all necessary assignment documents for the BioNTech Technology inventions in its files and maintains written track records of the proper claiming of any inventions made by employees of BioNTech, its Affiliates or Third Parties included in BioNTech Technology or Research and Development Program Technology by the employer and/or the proper assignment of the inventors of their rights in the invention, including the right to claim priority to said invention, to the employer;
- 12.3.15. as of the Signing Date, BioNTech has no knowledge of (a) any inequitable conduct or fraud on any patent office with respect to any of the BioNTech Patent Rights or (b) any Person (other than Persons identified in the applicable patent applications or patents, as inventors of inventions disclosed in the BioNTech Patent Rights) who claims to be an inventor of an invention disclosed in the BioNTech Patent Rights;
- 12.3.16. as of the Signing Date, BioNTech and its Affiliates are not, and to BioNTech's knowledge, no Current Licensor or Representative of BioNTech (in each case, as applicable) is, debarred by any Regulatory Authority or the subject of debarrent proceedings by any Regulatory Authority and, in the course of the discovery or pre-clinical development of any Candidate or Product, BioNTech and its Affiliates have not and, to the knowledge of BioNTech, no Current Licensor or Representative of BioNTech (in each case, as applicable) have used any employee or consultant that is debarred by any Regulatory Authority or, to the knowledge of BioNTech, is the subject of debarrent proceedings by any Regulatory Authority;
- 12.3.17. BioNTech, its Affiliates, and to BioNTech's knowledge, all third parties and Representatives acting on BioNTech's behalf, have and will comply in all material respects with all applicable Law and accepted pharmaceutical industry business practices in connection with this Agreement, including, to the extent applicable, the FD&C Act (21 U.S.C. § 301, et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), Civil Monetary Penalty Statute (42 U.S.C. § 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.), comparable state statutes, the regulations promulgated under all such statutes, and the regulations issued by the FDA, consistent with the 'Compliance Program Guidance for Pharmaceutical Manufacturers' published by the Office of Inspector General, U.S. Department of Health and Human Services;
- 12.3.18. with respect to any Candidates, Products, or payments or services provided under this Agreement, BioNTech, its Affiliates, and to its knowledge all third parties and Representatives acting on BioNTech's behalf, have not taken and will not during the Term take any action directly or indirectly to offer, promise or pay, or authorize the offer or payment of, any money or anything of value in order to improperly or corruptly seek to influence any Government Official or any other person in order to gain an improper advantage, and has not accepted, and will not accept in the future such payment;

12.3.19. BioNTech, its Affiliates, and to its knowledge all third parties and Representatives acting on BioNTech's behalf, have and will continue to comply with the laws and regulations of the countries where it operates, including Anti-Corruption Laws, accounting and record keeping laws, and laws relating to interactions with HCPs, Governments and Government Officials;

12.3.20. BioNTech has implemented policies and procedures, including but not limited to anti-corruption policies and procedures, commensurate with its current risk profile, and shall review said policies from time to time setting out rules governing interactions with HCPs and Government Officials, engagement of Third Parties, including, where appropriate, due diligence ("Policies"), and its Policies will mandate a robust set of internal controls, including accounting controls, designed to ensure the making and keeping of fair and accurate books, records and accounts, on its operations around the world and apply worldwide to all its employees, subsidiaries, and Third Parties acting on its behalf to provide reasonable assurance that BioNTech, its subsidiaries and such Third Parties will comply with Laws, including but not limited to Anti-Corruption Laws to the extent required by such Laws. BioNTech will reasonably monitor its operations and the operations of its Affiliates with the purpose of ensuring its Policies are effective at the reasonable assurance level and make necessary changes from time to time, in particular as its business activities expand;

12.3.21. the Impf Group does not own or Control any Intellectual Property Rights used by BioNTech or that BioNTech may reasonably require or be useful to exploitation of any of the RNA Technology.

#### 12.4. Accuracy of Representations and Warranties.

- 12.4.1. BioNTech will take no action which would render any representation or warranty made by BioNTech and contained in Section 12.1 or Section 12.2 inaccurate or untrue; <u>provided</u> that such covenant shall not apply to representations and warranties expressly given as of the Effective Date;
- 12.4.2. BioNTech will promptly notify Pfizer of any lawsuits, claims, administrative actions, regulatory inquiries or investigations, or other proceedings asserted or commenced against BioNTech or its Representatives involving in any material way the ability of BioNTech to deliver the rights, licenses and sublicenses granted herein; and
- 12.4.3. BioNTech will promptly notify Pfizer in writing of any facts or circumstances which come to its attention and which cause, or through the passage of time may cause, any of the representations and warranties contained in Section 12.1, Section 12.2, Section 16.10 or otherwise in this Agreement to be untrue or misleading in any material respect at any time during the Term; and in addition to the foregoing, with regard to any of the representations under Section 16.10, BioNTech will suspend all affected activities (including making any related payments) under this Agreement, unless and until Pfizer determines that such activities may be resumed; provided that such covenant shall not apply to representations and warranties expressly given as of the Effective Date.

12.5. <u>BioNTech Covenants</u>. In addition to the covenants made by BioNTech elsewhere in this Agreement, BioNTech hereby covenants to Pfizer that, from the Effective Date until expiration or termination of this Agreement:

- 12.5.1. BioNTech will not, and will cause its Affiliates not to (a) license, sell or assign (other than in a connection with a permitted assignment of this Agreement by BioNTech pursuant to Section 16.1) or otherwise transfer to any Person (other than Pfizer or its Affiliates or Sublicensees pursuant to the terms of this Agreement) any BioNTech Technology or Research and Development Program Technology (or agree to do any of the foregoing) or (b) incur or permit to exist, with respect to any BioNTech Technology or Research and Development Program Technology, any lien, encumbrance, charge, security interest, mortgage, liability, assignment, grant of license or other Binding Obligation, in each case of (a) and (b) that is inconsistent with the licenses and other rights granted (or that may be granted) to Pfizer or its Affiliates under this Agreement;
- 12.5.2. Except as explicitly permitted under this Agreement, BioNTech will not (a) take, or omit to take, any action that diminishes the rights under the BioNTech Technology or Research and Development Program Technology granted (or that may be granted) to Pfizer or Pfizer's Affiliates under this Agreement or (b) take, or omit to take, any action that is reasonably necessary to avoid diminishing the rights under the BioNTech Technology or Research and Development Program Technology granted (or that may be granted) to Pfizer or Pfizer's Affiliates under this Agreement (for the avoidance of doubt, BioNTech shall not be in breach of the covenants set forth in this Section 12.5.2 due to any reasonable act or position taken in connection with the filing, prosecution, maintenance, defense or enforcement of BioNTech Technology or Research and Development Program Technology as permitted in Section 10);
- 12.5.3. BioNTech will (a) not enter into any BioNTech Third Party Agreement that adversely affects (i) the rights granted (or that may be granted) to Pfizer; Pfizer's Affiliates or Sublicensees hereunder or (ii) BioNTech's ability to fully perform its obligations hereunder; (b) not amend or otherwise modify any BioNTech Third Party Agreement (including any Current License) or consent or waive rights with respect thereto in any manner that (A) adversely affects the rights granted (or that may be granted) to Pfizer or Pfizer's Affiliates or Sublicensees hereunder or (B) BioNTech's ability to fully perform its obligations hereunder; (c) promptly furnish Pfizer with true and complete copies of all (1) amendments to the Current Licenses and (2) BioNTech Third Party Agreements and related amendments executed following the Effective Date (in each case with redactions only in respect of sensitive information which is not relevant for the purposes of this Agreement); (d) remain, and cause its Affiliates to remain, in compliance in all material respects with all BioNTech Third Party Agreements; and (e) furnish Pfizer with copies of all notices received by BioNTech or its Representatives relating to any alleged breach or default by BioNTech or its Representatives under any BioNTech Third Party Agreement within ten (10) Business Days after receipt thereof (in each case with redactions only in respect of sensitive information which is not relevant for the purposes of this Agreement); and
- 12.5.4. BioNTech will not enter into or otherwise allow itself or its Representatives to be subject to any agreement or arrangement, other than the Current Licenses, which limits the ownership or licensed rights of Pfizer or its Affiliates with respect to, or limits the ability of Pfizer or its Affiliates to grant a license, sublicense or access, or provide or provide access or other rights in, to or under, any Intellectual Property Right or material (including any Patent Right, Know-How or other data or information), in each case, that would, but for such agreement or arrangement, be included in the rights licensed or assigned (or that may be licensed or assigned) to Pfizer or its Affiliates pursuant to this Agreement

12.5.5. BioNTech and its Affiliates will maintain or obtain valid and enforceable agreements with or from all inventors of BioNTech Technology or Research and Development Program Technology who are employed by or otherwise acting on behalf of BioNTech or its Affiliates assigning to BioNTech or its Affiliates each such inventor's entire right, title and interest in and to all such BioNTech Technology or Research and Development Program Technology (except to the extent applicable Law provides that all right, title and interest in and to such BioNTech Technology or Research and Development Program Technology automatically vests in BioNTech or its Affiliates by operation of law).

- 12.5.6. BioNTech will unrestrictedly claim and remunerate (and procure that its Affiliates will unrestrictedly claim and remunerate) all employee inventions of their respective employees comprised within the GEIA Technology in accordance with the provisions of the GEIA.
- 12.5.7. In respect of GEIA Technology created after the Effective Date to which Pfizer shall obtain a license hereunder, BioNTech will use Commercially Reasonable Efforts (and will procure that its Affiliates use Commercially Reasonable Efforts) to conclude agreements with BioNTech employee inventors regarding the respective inventions by which the respective inventors: (a) waive the employer's obligation to release the employee invention and to enable the employee inventor upon request to apply for foreign Intellectual Property Rights for such foreign countries in which it does not intend to apply for Intellectual Property Rights (Sec. 14 GEIA); and (b) waive the employer's obligation to notify the employee inventor and to transfer the right in the invention to the employee inventor at the latter's request and expense, if it does not intend to pursue the application for the grant on an Intellectual Property Right for the invention any further or if it does not want to maintain the Intellectual Property Right granted for the job-related invention (Sec. 16 GEIA); and (c) waive the employer's obligation to acknowledge protectability of the invention in case the employer decides not to file a registration, but to keep the invention secret (Sec. 17 GEIA);
- 12.5.8. To the extent BioNTech Technology or Research and Development Program Technology is created after the Effective Date by inventors employed by or acting on behalf of BioNTech's or its Affiliates' Third Party subcontractors, BioNTech will (a) use Commercially Reasonable Efforts (and will procure that its Affiliates use Commercially Reasonable Efforts) to obtain valid and enforceable agreements with their respective Third Party subcontractors imposing on their Third Party subcontractors the obligation to claim the rights in the invention in accordance with applicable Law and to conclude agreements with its employee inventors assigning to the respective Third Party subcontractor each such inventor's entire right, title and interest in and to all such BioNTech Technology or Research and Development Program Technology (except to the extent applicable Law provides that all right, title and interest in and to such BioNTech Technology or Research and Development Program Technology automatically vests in the Third Party subcontractor by operation of law) and, (b) to the extent GEIA applies to such BioNTech Technology or Research and Development Program Technology, use Commercially Reasonable Efforts to obtain a waiver of inventor in his rights in Sec. 14, 16 and 17 GEIA;

12.5.9. with respect to any BioNTech Technology or Research and Development Program Technology to which Pfizer shall obtain a license hereunder that is made after the Effective Date in the jurisdiction of the GEIA by an inventor on behalf of BioNTech or its Affiliates who is employed by a university pursuant to Sec. 42 GEIA (e.g. university professors, research assistants), BioNTech will use Commercially Reasonable Efforts (and will procure that its Affiliates use Commercially Reasonable Efforts) to obtain valid and enforceable trifold agreements with such inventor and the respective university by which the university (a) waives its entire right, title and interest in and to that BioNTech Technology or Research and Development Program Technology made by the

inventor, (b) the inventor assigns its rights, title and interest in and to that BioNTech Technology or Research and Development Program Technology to BioNTech or its Affiliates, (c) the inventor waives its rights pursuant to Sec. 14, 16 and 17 GEIA as well as (d) waives its negative publication right (Sec. 42 Nr. 2 GEIA) vis-a-vis BioNTech or its Affiliates;

- 12.5.10. with respect to animals used in conducting activities under this Agreement, BioNTech will, and will cause its Affiliates and permitted subcontractors to, comply with its policies on animal care and use which shall be no less strict than Pfizer's Corporate Policy regarding Animal Care and Use, attached hereto as <a href="Exhibit C">Exhibit C</a> (except where in conflict with applicable Law);
- 12.5.11. with respect to Human Material used, including collection or transfer, by BioNTech, its Affiliates or permitted subcontractors in conducting activities under this Agreement, (a) such use shall be in accordance with the binding part of the Research and Development Plan and shall be within the scope of and consistent with its ethical approval policies, (b) BioNTech will, and will cause its Affiliates or permitted subcontractors to, handle and use the Human Material in accordance with all applicable Laws and the ICF, which shall permit Pfizer to use the Human Material for the research purposes contemplated by this Agreement, (c) BioNTech will provide the ICF to Pfizer upon request by Pfizer, (d) the Human Material will be used for research purposes only and not be used for treatment of or administration to humans and (e) if BioNTech procures any Human Material from a Third Party such as a sample bank, it will ensure that the collection and transfer of the Human Material and the use of the Human Material for purposes of the Research and Development Plan is in accordance with all applicable Laws and recognized international standards for the protection of human research subjects;
- 12.5.12. BioNTech shall, at all times, maintain and enforce a compliance and ethics program containing adequate systems, policies and procedures for the detection, investigation, documentation, and remediation of any allegations, reports or findings related to a potential violation of applicable Law, including Anti-Corruption Laws, with respect to the Candidates, Products, payments and services under this Agreement, which policies shall be not less strict than Pfizer's Anti-Bribery and Anti-Corruption Principles attached hereto as Exhibit B. Such policies and procedures should set out rules governing interactions with HCPs, Government Officials, the engagement of Third Parties, and where appropriate, conducting due diligence, and the investigation, documentation and remediation of any allegations, reports or findings related to a potential violation of applicable Laws, and BioNTech shall, upon Pfizer's request, require any persons acting on behalf of BioNTech in connection with this Agreement to complete anti-corruption compliance training provided by Pfizer, and will notify Pfizer of any persons that require or may require such training during the Term of this Agreement;
- 12.5.13. if BioNTech finds, following an investigation, credible evidence of a violation of any applicable policies and procedures that are designed to ensure compliance with any applicable Laws, including any criminal, civil or administrative laws or regulations, or violations of policies or procedures related to scientific misconduct or data integrity, BioNTech shall promptly inform Pfizer of the occurrence and the steps taken by BioNTech to remediate the occurrence; and
- 12.5.14. in it undertaking, sponsoring, or having regulatory oversight over any Clinical Trials, BioNTech shall ensure and procure that all documentation for such Clinical Trials shall comply with, and take advantage of, any applicable Laws that serve to limit product liability claims and losses having regard to the pandemic status of COVID-19, including any requirements under any declarations pursuant to the Public Readiness and Emergency Preparedness (PREP) Act in the USA or any equivalent, similar or comparable legislation in the Territory.

12.6. <u>Pfizer Covenants</u>. In addition to the covenants made by Pfizer elsewhere in this Agreement, Pfizer hereby covenants to BioNTech that, from the Effective Date until expiration or termination of this Agreement,

- 12.6.1. Pfizer and its Affiliates maintain or will obtain valid and enforceable agreements with or from all inventors of Pfizer Improvements or Research and Development Program Technology who are employed by or otherwise acting on behalf of Pfizer or its Affiliates valid and enforceable agreements assigning to Pfizer or its Affiliates each such inventor's entire right, title and interest in and to all such Pfizer Improvements or Research and Development Program Technology (except to the extent applicable Law provides that all right, title and interest in and to such Pfizer Improvements or Research and Development Program Technology automatically vests in Pfizer or its Affiliates by operation of law), and Pfizer and its Affiliates have made or will make any payments owing to any such inventors in respect of any Pfizer Improvements or Research and Development Program Technology or any other Person that is required in connection with the creation or exploitation of or transfer of rights to such Pfizer Improvements or Research and Development Program Technology;
- 12.6.2. with respect to Human Material used, including collection or transfer, by Pfizer, its Affiliates or permitted subcontractors in conducting activities under this Agreement, (a) such use shall be within the scope of and consistent with its ethical approval policies, (b) Pfizer will, and will cause its Affiliates or permitted subcontractors to, handle and use the Human Material in accordance with all applicable Laws and the ICF, (c) Pfizer will provide the ICF to BioNTech upon request by BioNTech, (d) the Human Material will be used for research purposes only and not be used for treatment of or administration to humans and (e) if Pfizer procures any Human Material from a Third Party such as a sample bank, it will ensure that the collection and transfer of the Human Material and the use of the Human Material for purposes of the Research and Development Plan is in accordance with all applicable Laws and recognized international standards for the protection of human research subjects; and
- 12.6.3. Pfizer will comply with the provisions of the Current Licenses set forth in <u>Schedule 1.36</u> in respect of BioNTech Technology sublicensed to Pfizer under the respective Current Licenses insofar as Pfizer is using such BioNTech Technology;
- 12.6.4. Pfizer shall comply with its Anti-Bribery and Anti-Corruption Principles attached hereto as <u>Exhibit B</u> and its Corporate Policy regarding Animal Care and Use, attached hereto as <u>Exhibit C</u>; and
- 12.6.5. in it undertaking, sponsoring, or having regulatory oversight over any Clinical Trials, Pfizer shall ensure and procure that all documentation for such Clinical Trials shall comply with, and take advantage of, any applicable Laws that serve to limit product liability claims and losses having regard to the pandemic status of COVID-19, including any requirements under any declarations pursuant to the Public Readiness and Emergency Preparedness (PREP) Act in the USA or any equivalent, similar or comparable legislation in the Territory.
- 12.7. Notifications. During the Term. BioNTech will promptly notify Pfizer in writing or orally in the event that it learns of:
- 12.7.1. any prior art or other facts that BioNTech believes would result in the invalidity or unenforceability of any of the claims included in any of the BioNTech Patent Rights or Research and Development Program Patent Rights; or

- 12.7.2. any inequitable conduct or fraud on the patent office with respect to any of the BioNTech Patent Rights or Research and Development Program Patent Rights; or
- 12.7.3. any Person (other than Persons identified as inventors of inventions disclosed in the BioNTech Patent Rights or Research and Development Program Patent Rights) who claims to be an inventor of an invention disclosed in the BioNTech Patent Rights or Research and Development Program Patent Rights; and
- 12.7.4. any lawsuits, claims, administrative actions, government inquiries or investigations, or other proceedings related to the activities contemplated under this Agreement.
- 12.8. <u>Representation by Legal Counsel</u>. Each Party hereto represents that it has been represented by legal counsel in connection with this Agreement and acknowledges that it has participated in the drafting hereof. In interpreting and applying the terms and provisions of this Agreement, the Parties agree that no presumption will exist or be implied against the Party which drafted such terms and provisions.
- 12.9. <u>BioNTech's knowledge</u>. All references in this Section 12 to BioNTech's knowledge (or equivalent) shall refer to the actual knowledge after reasonable internal inquiry of BioNTech's management comprising those individuals set forth in <u>Schedule 12.9</u>.
- 12.10. <u>Disclaimer</u>, THE FOREGOING REPRESENTATIONS AND WARRANTIES OF EACH PARTY ARE IN LIEU OF ANY OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY SPECIFICALLY EXCLUDED AND DISCLAIMED.

# 13. GOVERNMENT APPROVALS; TERM AND TERMINATION

- 13.1. <u>Government Approvals</u>. Each of BioNTech and Pfizer will cooperate with the other Party and to make all registrations, filings and applications, to give all notices and to obtain as soon as practicable all governmental or other consents, transfers, approvals, orders, qualifications authorizations, permits and waivers, if any, and to do all other things necessary or useful for the consummation of the transactions as contemplated hereby including the collection of Human Material.
- 13.2. <u>Term.</u> The term of this Agreement (the "<u>Term</u>") will commence on the Effective Date and shall continue, unless terminated earlier in accordance with this Section 13, until the later of (a) completion of all Development and Manufacturing obligations of each Party set out herein; and (b) the termination or expiry of the Commercialization Agreement or, in the absence of a Commercialization Agreement, Pfizer ceasing to pursue Commercialization activities pursuant to the Commercialization Terms.
- 13.3. Termination for Cause by a Party. Either Party may terminate this Agreement for cause, at any time during the Term, by giving written notice to the other Party in the event that such other Party commits a material breach of its obligations under this Agreement and such material breach remains uncured for at least 90 days, in each case measured from the date written notice of such material breach is given to Pfizer; provided, however, that if any breach is not reasonably curable within [\*\*\*] and if the Party accused of breach is making a bona fide effort/using Commercially Reasonable Efforts to cure such breach, such termination will be delayed for a time period to be agreed by both Parties in order to permit the Party accused of a breach a reasonable period of time to cure such breach. If the alleged material breach relates to non-payment of any amount due under this Agreement, the cure period will be tolled pending resolution of any bona fide dispute between the Parties as to whether such payment is due.

- 13.4. <u>Termination by Pfizer Convenience</u>. [\*\*\*], Pfizer may terminate this Agreement for convenience upon [\*\*\*] prior written notice (which notice period may be shortened by BioNTech in BioNTech's sole discretion through written notice to Pfizer at any time after BioNTech's receipt of such termination notice) without any liability to BioNTech.
  - 13.5. <u>Termination by Pfizer for [\*\*\*]</u>
  - 13.6. Effects of Termination.
  - 13.6.1. **Termination for Cause by a Party.** In the event that a Party terminates this Agreement for cause pursuant to Section 13.3, all rights and obligations of each Party hereunder will cease (including all rights and licenses and sublicenses granted by either Party to the other Party hereunder, and all sublicenses granted to Affiliates or Third Parties under the rights granted hereunder), except as otherwise expressly provided herein.
    - 13.6.2. **Termination for Pfizer's Convenience**. Upon Pfizer's termination pursuant to Section 13.4 (a) [\*\*\*]; and (b) [\*\*\*].
  - 13.6.3. **No Effect on Related Agreements.** Unless explicitly agreed otherwise, termination or expiration of this Agreement shall not affect any other agreements concluded hereunder, including the Commercialization Agreement or any Manufacturing agreements pursuant to Article 8.
  - 13.6.4. **Continuation of Pfizer Licenses.** Except in the event of Pfizer's termination pursuant to Section 13.3 or 13.7.1, (a) [\*\*\*], (b) [\*\*\*], (c) [\*\*\*], and (d) [\*\*\*].

13.6.5. **Exclusivity.** In the event of Pfizer's termination pursuant to Section 13.3 or 13.7, the Parties' obligations pursuant to Section 3.10.3 shall survive the termination or expiration of this Agreement for a period of [\*\*\*] years provided that BioNTech shall not be prevented from using the Product within the Field. In the event of Pfizer's termination pursuant to Section 13.4 or 13.5, Pfizer shall not be entitled to enter into any collaboration or license agreement with any Third Party to Develop or Commercialize in the Territory an immunogenic composition comprising mRNA in the Field for a period of [\*\*\*] months commencing on the date of the termination notice served by Pfizer, provided that such obligation shall not (i) restrict Pfizer's or its Affiliates' right to work as contract manufacturer for a Third Party, (ii) prohibit Pfizer or its Affiliate from acquiring any Third Party, or being acquired by any Third Party, that at the time of acquisition is active in the Development or Commercialization of an immunogenic composition comprising mRNA in the Field, or (iii) prohibit Pfizer or its Affiliate from undertaking non-clinical research work.

- 13.6.6. **Accrued Rights.** Expiration or termination of this Agreement for any reason will be without prejudice to any right which will have accrued to the benefit of either Party prior to such termination, including damages arising from any breach under this Agreement. Expiration or termination of this Agreement will not relieve either Party from any obligation which is expressly indicated to survive such expiration or termination.
- 13.6.7. **Survival Period**. The following sections, together with any sections that expressly survive, will survive expiration or termination of this Agreement for any reason: Sections 1 (Definitions), 3.5 (additional licenses), 5.4.2(a) through (d) only (Repayment of BioNTech Deferred Development Costs) (except in the event of a termination by Pfizer pursuant to Section 13.4), 5.6 (Records and Accounting Principles), 5.7.1 (Withholding Taxes), 5.10 (Audits), 5.10.1 (Underpayments/Overpayments), 5.10.2 (Confidentiality), 7.4.2 (Title to Pfizer Materials and BioNTech Materials), 7.4.4 (Return of Proprietary Materials), 9.2.5, first sentence only (Ownership of Regulatory Filings), 9.7 (Liability), 10.2 (Ownership of Intellectual Property), 10.3.1.2, 10.3.1.3 and 10.3.2 (Filing, Prosecution and Maintenance of Patent Rights), 11 (Confidentiality), 13.6 (Effects of Termination), 13.7 (Provision for Insolvency), 15.1 (No Consequential Damages), 15.2 (Indemnification by Pfizer), 15.3 (Indemnification by BioNTech), 15.4 (Procedure), 16 (Miscellaneous) and, to the extent an Enforcement Action or Infringement Claim is active, live or pending at the time of expiry or termination, Sections 10.4 or 10.8, as applicable.

### 13.7. Provision for Insolvency.

13.7.1. **Termination Right**. BioNTech will be deemed a "<u>Debtor</u>" under this Agreement if, at any time during the Term (a) a case is commenced by or against BioNTech under the Bankruptcy Code, (b) BioNTech files for or is subject to the institution of bankruptcy, reorganization, liquidation or receivership proceedings (other than a case under the Bankruptcy Code), (c) BioNTech assigns all or a substantial portion of its assets for the benefit of creditors, (d) a receiver or custodian is appointed for BioNTech's business or (e) a substantial portion of BioNTech's business is subject to attachment or similar process; *provided*, *however*, that in the case of any involuntary case under the Bankruptcy Code, BioNTech will not be deemed a Debtor if the

case is dismissed within 60 days after the commencement thereof. If BioNTech is deemed a Debtor, then Pfizer may terminate this Agreement by providing written notice to BioNTech. If Pfizer terminates this Agreement pursuant this Section 13.7.1, then: (i) all licenses granted to Pfizer under this Agreement will become irrevocable and perpetual, and Pfizer will have no further obligations to BioNTech under this Agreement other than (A) those obligations that expressly survive termination in accordance with Section 13.6.7 and (B) an obligation to pay royalties with respect to Net Sales of Products in an amount equal to 100% of the amount that would otherwise have been payable under this Agreement, such amount to be paid in accordance with and subject to the other terms of this Agreement governing the payment of royalties; (ii) such termination will not be construed to limit BioNTech's right to receive payments that accrued before the effective date of such termination; (iii) Pfizer will have the right to offset, against any payment owing to BioNTech as provided for under clause (i), above, any damages found or agreed by the Parties to be owed by BioNTech to Pfizer; and (iv) nothing in this Section 13.7.1 will limit any other remedy Pfizer may have for any breach by BioNTech of this Agreement.

13.7.2. Rights to Intellectual Property. All rights and licenses now or hereafter granted by BioNTech to Pfizer under or pursuant to any Section of this Agreement, including Sections 3.1.1, 3.2.1, 3.3, 3.4.1 and 3.5.1 and Section 10 hereof, are rights to "intellectual property" (as defined in the Bankruptcy Code). The Parties hereto acknowledge and agree that the payments provided for under Sections 5 and all other payments by Pfizer to BioNTech hereunder or under the Commercialization Agreement do not constitute royalties within the meaning of Section 365(n) of the Bankruptcy Code or relate to licenses of intellectual property hereunder. If (a) a case under the Bankruptcy Code is commenced by or against BioNTech, (b) this Agreement is rejected as provided in the Bankruptcy Code and (c) Pfizer elects to retain its rights hereunder as provided in Section 365(n) of the Bankruptcy Code, then BioNTech (in any capacity, including debtor-in-possession) and its successors and assigns (including any trustee) will provide to Pfizer all Intellectual Property Rights licensed hereunder, and agrees to grant and hereby grants to Pfizer and its Affiliates a right to access and to obtain possession of and to benefit from and, in the case of any chemical or biological material or other tangible item of which there is a fixed or limited quantity, to obtain a pro rata portion of, each of the following to the extent related to any Candidate or Product, or otherwise related to any right or license granted under or pursuant to this Agreement: (i) copies of pre-clinical and clinical research data and results; (ii) all of the following (to the extent that any of the following are so related): BioNTech Materials, cell lines, antibodies, assays, reagents and other biological materials; (iii) samples or Candidates and Products; (iv) BioNTech Technology, Product Technology, and RNA Technology, (v) laboratory notes and notebooks; (vi) Candidate and Product data or filings, and (vii) rights of reference in respect of filings for and Regulatory Approvals, all of which constitute "embodiments" of intellectual property pursuant to Section 365(n) of the Bankruptcy Code, and (viii) all other embodiments of such intellectual property, whether any of the foregoing are in BioNTech's possession or control or in the possession and control of any Third Party but which BioNTech has the right to access or benefit from and to make available to Pfizer. BioNTech will not interfere with the exercise by Pfizer or its Affiliates of rights and licenses to Intellectual Property Rights licensed hereunder and embodiments thereof in accordance with this Agreement and agrees to use Commercially Reasonable Efforts to assist Pfizer and its Affiliates to obtain such Intellectual Property Rights and embodiments thereof in the possession or control of Third Parties as reasonably necessary or useful for Pfizer or its Affiliates or Sublicensees to exercise such rights and licenses in accordance with this Agreement.

13.7.3. **No Limitation of Rights**. All rights, powers and remedies of Pfizer provided in this Section 13.7 are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at Law or in equity (including the Bankruptcy Code) in the event of the commencement of a case under the Bankruptcy Code involving BioNTech. To the extent

equivalent rights exist under the Bankruptcy Code existing from time to time in the jurisdiction where BioNTech is established the foregoing provisions shall be interpreted in accordance with such equivalent rights, and where such equivalent rights to not exist Pfizer shall be entitled to avail of itself all remedies and rights available to it as a creditor and licensee of Intellectual Property Rights under such local Bankruptcy Code.

#### 14. CHANGE OF CONTROL

- 14.1. <u>Change of Control</u>. If a Change of Control occurs with respect to a Party and a Third Party during the Term, or if a Party or any of its Affiliates acquires or merges with a Third Party during the Term, (in either case such Party being the "<u>Affected Party</u>"):
  - 14.1.1. if such Third Party is, at the time of such Change of Control or acquisition or merger, conducting activities that would cause the Affected Party or one of its Affiliates to violate Section 3.10.1 (such activities, a "<u>Acquisition Program</u>"), then such Affected Party or such Third Party shall be permitted to continue such Acquisition Program and such continuation will not constitute a violation of Section 3.10.1;
  - 14.1.2. the provisions of Section 11.7 shall apply and no Confidential Information of the other Party or its Affiliates may be disclosed to the Third Party and shall not be used in any Acquisition Program (if any) and the Affected Party shall implement and maintain, in accordance with such Affected Party's internal commercially reasonable practices, an information and personnel barrier between the working teams involved in the day to day conduct of such Affected Party's internal program of Development and Manufacture of Candidates and Products under this Agreement, and any activities of the Third Party, including under any Acquisition Program; and
    - 14.1.3. if BioNTech is the Affected Party then:

14.1.3.1.[\*\*\*]; 14.1.3.2.[\*\*\*]; 14.1.3.3.[\*\*\*];

14.1.3.4.[\*\*\*]; and 14.1.3.5.[\*\*\*].

- 14.2. <u>Effects of Change of Control</u>. In the event of a Change of Control of BioNTech by during the Term, the following provisions of this Section 14 shall also apply:
  - 14.2.1. **BioNTech Intellectual Property.** All BioNTech Technology and Research and Development Program Technology, Controlled by BioNTech immediately prior to such BioNTech Change of Control shall continue to be BioNTech Technology and Research and Development Program Technology licensed to Pfizer for purposes of this Agreement.
  - 14.2.2. **Existing Acquirer Intellectual Property**. Patent Rights and Know-How that were Controlled by the entity acquiring BioNTech or such entity's Affiliates that were not Affiliates of BioNTech prior to such BioNTech Change of Control (collectively, the "<u>Acquirer</u>") shall not be included within the licenses granted to Pfizer hereunder.
  - 14.2.3. Independent Intellectual Property. Patent Rights and Know-How that, following such BioNTech Change of Control, are developed, made or otherwise acquired or Controlled by the Acquirer outside of the Research and Development Plan or the Manufacturing Plan and without use of Pfizer's Technology, Pfizer's Confidential Information, Research and Development Program Technology, BioNTech Improvements or BioNTech Technology shall not be included within the Research and Development Program Technology or BioNTech Technology or BioNTech Third Party Agreements (it being understood, however, for the avoidance of doubt, that all BioNTech Technology, Research and Development Program Technology, and Intellectual Property Rights developed by BioNTech or the Acquirer in the course of, or used by BioNTech or the Acquirer under the Research and Development Plan or used in the Manufacture of the Candidates or Products by BioNTech shall be licensed to Pfizer pursuant to the licenses set forth in this Agreement).
  - 14.2.4. **Research and Development Program Technology.** No Research and Development Program Technology Controlled by Pfizer including Pfizer Improvements shall be licensed or sub-licensable to the Acquirer, and no Confidential Information of Pfizer or its Representatives shall be disclosed to the Acquirer, in each case without the prior written consent of Pfizer.
  - 14.2.5. **Effect on Certain Agreement Provisions**. From and after the effective date of a BioNTech Change of Control by a Specified Person, the Acquirer shall not be considered an "Affiliate" for the purposes of this Agreement, provided that the Acquirer does not engage in any activities otherwise restricted under Section 3.10 using any Research and Development Program Technology, Pfizer Technology, Pfizer Improvements or Confidential Information of Pfizer.

### 15. <u>LIMITATION ON LIABILITY, INDEMNIFICATION AND INSURANCE</u>

15.1. No Consequential Damages. Except with respect to liability arising from a breach of Sections 10 or 10.1, from any willful misconduct or intentionally wrongful act, or to the extent such Party may be required to indemnify the other Party under this Section 15, in no event will either Party or its Representatives be liable under this Agreement for any special (only as related to indirect, incidental or

consequential damages), indirect, incidental, consequential or punitive damages, whether in contract, warranty, tort, negligence, strict liability or otherwise, including loss of indirect profits or revenue suffered by the other Party or any of its Representatives. Without limiting the generality of the foregoing, "consequential damages" will be deemed to include, and neither Party will be liable to the other Party or any of such other Party's Representatives or stockholders for any damages based on or measured by loss of projected or speculative future sales of the Products, any development, regulatory, launch or sales threshold milestone payments due or any other unearned, speculative or otherwise contingent payments provided for in this Agreement.

15.2. <u>Indemnification by Pfizer</u>. Pfizer will indemnify, defend and hold harmless BioNTech, each of its Affiliates, and each of its and its Affiliates' employees, officers, directors and agents (each, a "<u>BioNTech Indemnified Party</u>") from and against any and all claims, causes, or allegations (whether threatened or pending), judgments, expenses, damages, liabilities, obligations, fees (including the reasonable fees of attorneys and other consulting or testifying professionals), costs and losses (collectively, "<u>Liabilities</u>") that the BioNTech Indemnified Party may be required to pay to one or more Third Parties resulting from or arising out of (a) use of the Pfizer Technology, Pfizer Materials, and/or Pfizer Know-How disclosed by or on behalf of Pfizer in accordance with the rights licensed under this Agreement or (c) the material breach by Pfizer of any of its representations, warranties or covenants set forth in Section 7.4.1, Section 12.1 or Section 12.2 or Section 12.6; except, in each case, to the extent caused by the negligence, recklessness or intentional acts of BioNTech or any BioNTech Indemnified Party.

15.3. Indemnification by BioNTech. BioNTech will indemnify, defend and hold harmless Pfizer, its Affiliates, Sublicensees, contractors, distributors and each of its and their respective employees, officers, directors and agents (each, a "Pfizer Indemnified Party") from and against any and all Liabilities that the Pfizer Indemnified Party may be required to pay to one or more Third Parties resulting from or arising out of (a) use of the BioNTech Technology [\*\*\*], BioNTech Materials, and/or BioNTech Know-How disclosed by or on behalf of BioNTech in accordance with the rights licensed under this Agreement, (b) the Candidates or Products in accordance with the rights licensed under this Agreement, save to the extent the Liabilities are in respect of (i) the exploitation of Pfizer Technology infringing a Third Party Patent Right or (ii) [\*\*\*]; (c) use of the BioNTech name or logo in accordance with the rights licensed under this Agreement, (d) rights or obligations under the GEIA relating to inventions made by employees of BioNTech or its Affiliates or Third Party Licensors in relation to BioNTech Technology or Research and Development Program Technology used in any Candidate or Product; or (e) the material breach by BioNTech or any of its Representatives of any of its representations, warranties or covenants set forth in Section 9, Section 12.1, Section 12.2, Section 12.3, or Section 12.5 except to the extent caused by the negligence, recklessness or intentional acts of Pfizer or any Pfizer Indemnified Party.

#### 15.4. Procedure.

15.4.1. **Notice**. Each Party will notify the other Party in writing in the event it becomes aware of a claim for which indemnification may be sought hereunder. In the event that any Third Party asserts a claim or other proceeding (including any governmental investigation) with respect to any matter for which a Party (the "Indemnified Party") is entitled to indemnification hereunder (a "Third Party Claim"), then the Indemnified Party will promptly notify the Party obligated to indemnify the Indemnified Party (the "Indemnifying Party") thereof; *provided*, *however*, that no delay on the part of the Indemnified Party in notifying the Indemnifying Party will relieve the Indemnifying Party from any obligation hereunder unless (and then only to the extent that) the Indemnifying Party is prejudiced thereby.

15.4.2. Control. Subject to either Party's right to control any actions described in Section 10 (even where the other Party is the Indemnifying Party), the Indemnifying Party will have the right, exercisable by notice to the Indemnified Party within ten Business Days after receipt of notice from the Indemnified Party of the commencement of or assertion of any Third Party Claim, to assume direction and control of the defense, litigation, settlement, appeal or other disposition of the Third Party Claim (including the right to settle the claim solely for monetary consideration) with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party; provided that (a) the Indemnifying Party has sufficient financial resources, in the reasonable judgment of the Indemnified Party, to satisfy the amount of any adverse monetary judgment that is sought, (b) the Third Party Claim seeks solely monetary damages and (c) the Indemnifying Party expressly agrees in writing that as between the Indemnifying Party and the Indemnified Party, the Indemnifying Party will be solely obligated to satisfy and discharge the Third Party Claim in full (the conditions set forth in clauses (a), (b) and (c) above are collectively referred to as the "Litigation Conditions"). Within ten Business Days after the Indemnifying Party has given notice to the Indemnified Party of its exercise of its right to defend a Third Party Claim, the Indemnified Party will give notice to the Indemnifying Party of any objection thereto based upon the Litigation Conditions. If the Indemnified Party reasonably so objects, the Indemnified Party will continue to defend the Third Party Claim, at the expense of the Indemnifying Party, until such time as such objection is withdrawn. If no such notice is given, or if any such objection is withdrawn, the Indemnifying Party will be entitled, at its sole cost and expense, to assume direction and control of such defense, with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. During such time as the Indemnifying Party is controlling the defense of such Third Party Claim, the Indemnified Party will cooperate, and will cause its Affiliates and agents to cooperate upon request of the Indemnifying Party, in the defense or prosecution of the Third Party Claim, including by furnishing such records, information and testimony and attending such conferences, discovery proceedings, hearings, trials or appeals as may reasonably be requested by the Indemnifying Party. In the event that the Indemnifying Party does not satisfy the Litigation Conditions or does not notify the Indemnified Party of the Indemnifying Party's intent to defend any Third Party Claim within ten Business Days after notice thereof, the Indemnified Party may (without further notice to the Indemnifying Party) undertake the defense thereof with counsel of its choice and at the Indemnifying Party's expense (including reasonable, out-of-pocket attorneys' fees and costs and expenses of enforcement or defense). The Indemnifying Party or the Indemnified Party, as the case may be, will have the right to join in (including the right to conduct discovery, interview and examine witnesses and participate in all settlement conferences), but not control, at its own expense, the defense of any Third Party Claim that the other party is defending as provided in this Agreement.

15.4.3. **Settlement**. The Indemnifying Party will not, without the prior written consent of the Indemnified Party, enter into any compromise or settlement that commits the Indemnified Party to take, or to forbear to take, any action. The Indemnified Party will have the sole and exclusive right to settle any Third Party Claim, on such terms and conditions as it deems reasonably appropriate, to the extent such Third Party Claim involves equitable or other non-monetary relief, but will not have the right to settle such Third Party Claim to the extent such Third Party Claim involves monetary damages without the prior written consent of the Indemnifying Party. Each of the Indemnifying Party and the Indemnified Party will not make any admission of liability in respect of any Third Party Claim without the prior written consent of the other party, and the Indemnified Party will use reasonable efforts to mitigate Liabilities arising from such Third Party Claim.

15.5. Insurance. Each Party further agrees to obtain and maintain, during the Term, commercial general liability insurance, including products liability insurance (or clinical trials insurance, if applicable), with minimum "A-" A.M. Best rated insurance carriers to cover its indemnification obligations under Section 15.2 or Section 15.3, as applicable, in each case with limits of not less than \$[\*\*\*] ([\*\*\*] U.S. Dollars) per occurrence and in the aggregate. All deductibles and retentions will be the responsibility of the named insured. Within [\*\*\*] days of the Effective Date, BioNTech will amend its existing insurance policies in such a way that (a) Pfizer Inc. and its Affiliates will be indemnified as principal on BioNTech's commercial general liability and products liability and (b) Pfizer Inc. and its Affiliates will be provided a waiver of subrogation on BioNTech's commercial general liability and products liability policies (or clinical trials insurance, if applicable). For U.S. exposures, additional insured status on BioNTech's commercial general liability and products liability policies shall be via form CG20101185 or its equivalent. Products liability coverage shall be maintained for three years following termination of this Agreement. To the extent of its culpability or negligence, all coverages of BioNTech will be primary and non-contributing with any similar insurance, carried by Pfizer. Notwithstanding any provision of this Section 15.5 to the contrary, Pfizer may meet its obligations under this Section 15.5 through self-insurance. Neither Party's insurance will be construed to create a limit of liability with respect to its indemnification obligations under this Section 15.

#### 16. MISCELLANEOUS

16.1. Assignment. Neither this Agreement nor any interest hereunder will be assignable by a Party without the prior written consent of the other Party, except as follows: (a) subject to the provisions of this Agreement in respect of Change of Control, as applicable, a Party may assign its rights and obligations under this Agreement by way of sale of itself or the sale of the portion of its business to which this Agreement relates, through merger, sale of assets and/or sale of stock or ownership interest, *provided that* the assignee will expressly agree to be bound by such Party's obligations under this Agreement and that such sale is not primarily for the benefit of its creditors, (b) such Party may assign its rights and obligations under this Agreement to any of its Affiliates, *provided that* the assignee will expressly agree to be bound by such Party's obligations under this Agreement and that such Party will remain liable for all of its rights and obligations under this Agreement. In addition, Pfizer may assign its rights and obligations under this Agreement to a Third Party where Pfizer or its Affiliate is required, or makes a good faith determination based on advice of counsel, to divest a Product in order to comply with Law or the order of any Governmental Authority as a result of a merger or acquisition, *provided that* the assignee will expressly agree to be bound by Pfizer's obligations under this Agreement. Each Party will promptly notify the other Party of any assignment or transfer under the provisions of this Section 16.1. This Agreement will be binding upon the successors and permitted assigns of the Parties and the name of a Party appearing herein will be deemed to include the names of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment not in accordance with this Section 16.1 will be void.

16.2. <u>Further Actions</u>. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of the Agreement.

16.3. Force Majeure. Each Party will be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse will be continued so long as the condition constituting force majeure continues and the nonperforming Party takes Commercially Reasonable Efforts to remove the condition. For purposes of this Agreement, "force majeure" will include conditions beyond the control of the Parties, including an act of God, voluntary or involuntary compliance with any regulation, Law or order of any government, war, act of terror, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe.

16.4. Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa), (b) the words "include", "includes" and "including" will be deemed to be followed by the phrase "without limitation", (c) the word "will" will be construed to have the same meaning and effect as the word "shall", (d) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or 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), (e) any reference herein to any Person will be construed to include the Person's successors and assigns, (f) 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, (g) all references herein to Sections, Exhibits or Schedules will be construed to refer to Sections, Exhibits or Schedules of this Agreement, and references to this Agreement include all Exhibits and Schedules hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) and will include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party, the Parties or any committee hereunder "agree," "consent" or "approve" or the like will require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (excluding e-mail or instant messaging, but a signed PDF document being acceptable), (j) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacem

16.5. Notices. Any notice or notification required or permitted to be provided pursuant to the terms and conditions of this Agreement (including any notice of force majeure, breach, termination, change of address, etc.) will be in writing and will be deemed given upon receipt if delivered personally or by facsimile transmission (receipt verified), and upon delivery if mailed by registered or certified mail or courier. Where delivery occurs outside normal working hours, notice will be deemed given at the start of normal working hours on the next Business Day. Notice shall be given to the Parties at the following addresses or facsimile numbers (or at such other address or facsimile number for a Party as will be specified by like notice, provided, however, that notices of a change of address will be effective only upon receipt thereof):

All correspondence to Pfizer will be addressed as follows:

Pfizer Inc.
Notices: [\*\*\*]
with a copy to:
Pfizer Inc.
Notices: Pfizer Legal Division
[\*\*\*]

[\*\*\*]

To help expedite Pfizer's awareness and response, copies of notices may be provided to Pfizer by email but must be supplemented by one of the following methods: (a) personal delivery, (b) first class certified mail with return receipt requested, or (c) next-day delivery by major international courier, with confirmation of delivery. Electronic copies may be sent via email to [\*\*\*].

All correspondence to BioNTech will be addressed as follows:

BioNTech SE
[\*\*\*]

- 16.6. <u>Amendment</u>. No amendment, modification or supplement of any provision of this Agreement will be valid or effective unless made in writing and signed by a duly authorized officer of each Party.
- 16.7. Waiver. No provision of this Agreement will be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. The waiver by either of the Parties of any breach of any provision hereof by the other Party will not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.
- 16.8. Severability. If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same will not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement will be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement will be construed as if such clause of portion thereof had never been contained in this Agreement, and there will be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by applicable Law.
- 16.9. <u>Descriptive Headings</u>. The descriptive headings of this Agreement are for convenience only and will be of no force or effect in construing or interpreting any of the provisions of this Agreement.
- 16.10. Global Trade Control Laws. The Parties acknowledge that certain activities covered by or performed under this Agreement may be subject to laws, regulations or orders regarding economic sanctions, import controls or export controls ("Global Trade Control Laws"). Each of the Parties will perform all activities under this Agreement in compliance with all applicable Global Trade Control Laws. Furthermore, with respect to the activities performed under this Agreement, each of the Parties represents, warrants and covenants that:
  - 16.10.1. Each Party will not, for activities under this Agreement, (a) engage in any such activities in a Restricted Market; (b) involve individuals ordinarily resident in a Restricted Market; or (c) include companies, organizations, or Governmental Authorities from or located in a Restricted Market. "Restricted Market" for purposes of this Agreement means the Crimean Peninsula, Cuba, the Donbass Region, Iran, North Korea, Sudan, and Syria, or any other country or region sanctioned by the United States or European Union.

16.10.2. Each Party represents and warrants that it is not a Restricted Party and is not owned or controlled by a Restricted Party. With respect to activities performed under this Agreement, neither Party will engage or delegate to any Restricted Parties for any activities under this Agreement. Each Party will screen all relevant Third Parties involved by such Party in the activities under this Agreement under the relevant Restricted Party Lists. "Restricted Parties" for purposes of this Agreement means any individual or entity on any of the following "Restricted Party Lists": the list of sanctioned entities maintained by the United Nations; the Specially Designated Nationals List and the Sectoral Sanctions Identifications List of the U.S. Treasury Department's Office of Foreign Assets Control; the U.S. Denied Persons List, the U.S. Entity List, and the U.S. Unverified List of the U.S. Department of Commerce; entities subject to restrictive measures and the Consolidated List of Persons, Groups and Entities Subject to E.U. Financial Sanctions, as implemented by the E.U. Common Foreign & Security Policy; the List of Excluded Individuals / Entities published by the U.S. Health and Human Services' Office of Inspector General; any lists of prohibited or debarred parties established under the U.S. Federal Food Drug and Cosmetic Act; the list of parties suspended or debarred from contracting with the U.S. government; and similar lists of restricted parties maintained by the Governmental Authorities of the countries that have jurisdiction over the activities conducted under this Agreement.

- 16.10.3. Neither Party will knowingly transfer to the other Party any goods, software, technology or services that are (a) controlled under the U.S. International Traffic in Arms Regulations or at a level other than EAR99 under the U.S. Export Administration Regulations; or (b) specifically identified as an E.U. Dual Use Item or on an applicable export control list of another country.
- 16.11. <u>Dispute Resolution</u>. If any dispute or disagreement arises between Pfizer and BioNTech in respect of this Agreement, they will follow the following procedures in an attempt to resolve the dispute or disagreement:
  - 16.11.1. The Party claiming that such a dispute exists will give notice in writing ("Notice of Dispute") to the other Party of the nature of the dispute.
  - 16.11.2. Within 30 days of receipt of a Notice of Dispute and in advance of any meeting pursuant to Section 16.11.3, the receiving Party will provide a written response to the other Party's claims regarding the dispute.
  - 16.11.3. Within 45 days of receipt of a Notice of Dispute, the Chief Scientific Officer, Vaccine Research and Development of Pfizer and the Chief Scientific Officer of BioNTech AG will meet at a mutually agreed-upon time and location for the purpose of resolving such dispute to discuss the dispute or disagreement.

Notwithstanding any provision of this Agreement to the contrary, either Party may immediately initiate litigation in any court of competent jurisdiction seeking any remedy at law or in equity, including the issuance of a preliminary, temporary or permanent injunction, to preserve or enforce its rights under this Agreement. The provisions of this Section 16.11 will survive for five years from the date of termination or expiration of this Agreement.

16.12. <u>Governing Law</u>. This Agreement is governed by, and all disputes arising under or in connection with this Agreement shall be resolved in accordance with, laws of England and Wales, without regard to conflict of law principles thereof.

- 16.13. Consent to Jurisdiction and Venue. The Parties irrevocably submit to the exclusive jurisdiction of the courts of England and Wales as regards any claim, dispute or matter (whether contractual or non-contractual) arising out of or in connection with this Agreement (including its formation). Notwithstanding the foregoing, this clause shall not prevent either Party from being entitled to seek urgent interim or emergency relief (such as a preliminary injunction) before any other court of competent jurisdiction in respect of any claim, dispute or matter (whether contractual or non-contractual) arising out of or in connection with this Agreement (including its formation).
- 16.14. Entire Agreement. This Agreement constitutes and contains the complete, final and exclusive understanding and agreement of the Parties and cancels and supersedes any and all prior negotiations, correspondence, understandings and agreements, whether oral or written, between the Parties respecting the subject matter hereof and thereof, including (a) that certain [\*\*\*] (which is hereby terminated effective as of the Effective Date, *provided that* such Confidential Disclosure Agreement will continue to govern the treatment of Confidential Information disclosed by the Parties prior to the Effective Date in accordance with its terms), (b) that certain [\*\*\*] (which is hereby terminated effective as of the Effective Date, *provided that* the terms of this Agreement shall also apply to all activities made under the [\*\*\*] (which is hereby terminated effective as of the Effective Date).
- 16.15. <u>Flu Collaboration</u>. Except as provided in Section 8.2, nothing in this Agreement varies, amends or otherwise supersedes or replaces the provisions and rights under the Flu Collaboration License, and the Flu Collaboration License and this Agreement shall be treated as separate arm's length transactions.
- 16.16. <u>Independent Contractors</u>. Both Parties are independent contractors under this Agreement. Nothing herein contained will be deemed to create an employment, agency, joint venture or partnership relationship between the Parties hereto 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. 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.
- 16.17. <u>Counterparts</u>. This Agreement may be executed in two (2) counterparts, each of which will be an original and both of which will constitute together the same document. Counterparts may be signed and delivered by facsimile or digital (e.g., PDF) file, each of which will be binding when received by the applicable Party.
- 16.18. No Third Party Rights or Obligations. No provision of this Agreement will be deemed or construed in any way to result in the creation of any rights or obligation in any Person not a Party to this Agreement, and this Agreement does not give rise to any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Agreement. However, Pfizer may decide, in its sole discretion, to use one or more of its Affiliates to perform its obligations and duties hereunder, *provided that* Pfizer will remain liable hereunder for the performance by any such Affiliates of any such obligations.

(Signature page follows)

IN WITNESS WHEREOF, authorized representatives of the Parties have duly executed this Agreement as of the Effective Date to be effective as of the Effective Date.

| PFIZER INC.                                 | BIONTECH SE |
|---|-------------|
| Ву  | By          |
| Name:                                       | Name:       |
| Title:                                      | Title:      |
|   | Ву          |
|   | Name:       |
|   | Title:      |
| [Signature page to Collaboration Agreement] |             |

# Exhibit A

# Research and Development Plan

To be agreed by the Parties in accordance with Section 2.2 and added after the Signing Date.

#### Exhibit B

#### PFIZER ANTI-BRIBERY AND ANTI-CORRUPTION PRINCIPLES

Pfizer has a longstanding corporate policy that prohibits colleagues or anyone acting on our behalf from providing any payment or benefit to any person or entity in order to improperly influence a government official or to gain an unfair business advantage. Pfizer is committed to performing with integrity, and acting ethically and legally in accordance with all applicable laws and regulations, including, but not limited to, anti-bribery and anti-corruption laws. We expect the same commitment from the consultants, agents, representatives or other companies and individuals acting on our behalf ("Business Associates"), as well as those acting on behalf of Business Associates, in connection with work for Pfizer.

### **Bribery of Government Officials**

Most countries have laws that forbid making, offering or promising any payment or anything of value (directly or indirectly) to a government official when the payment is intended to influence an official act or decision to award or retain business. Under Pfizer's policies, "government official" is broadly interpreted and includes: (i) any elected or appointed government official (e.g., a member of a ministry of health); (ii) any employee or person acting for or on behalf of a government official, agency, or enterprise performing a governmental function; (iii) any political party, candidate for public office, officer, employee, or person acting for or on behalf of a political party or candidate for public office; or (iv) an employee or person acting for or on behalf of a public international organization (e.g., the United Nations). "Government" is meant to include all levels and subdivisions of governments (i.e., local, regional, or national and administrative, legislative, or executive). Because this definition of "government official" is so broad, it is likely that Business Associates will interact with a government official in the ordinary course of their business on behalf of Pfizer. For example, doctors employed by government-owned hospitals would be considered "government officials" under Pfizer's policies.

The U.S. Foreign Corrupt Practices Act of 1977 (the "FCPA") prohibits making, promising, or authorizing the making of a payment or providing anything of value to a non-U.S. government official to improperly or corruptly induce that official to make any governmental act or decision to assist a company in obtaining or retaining business, or to otherwise obtain an improper advantage. The FCPA also prohibits a company or person from using another company or individual to engage in any of the foregoing activities. As a U.S. company, Pfizer must comply with the FCPA and could be held liable as a result of acts committed anywhere in the world by a Business Associate.

### Anti-Bribery and Anti-Corruption Principles Governing Interactions with Governments and Government Officials

Business Associates must communicate and abide by the following principles with regard to their interactions with governments and government officials:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or
  authorize the making of a corrupt payment or provide anything of value to any government official to induce that government official to
  make any governmental act or decision to help Pfizer obtain or retain business. Business Associates, and those acting on their behalf in
  connection with work for Pfizer, may never make a payment to or offer a government official any item or benefit, regardless of value, as an
  improper inducement for such government official to approve, reimburse, prescribe, or purchase a Pfizer product, to influence the outcome
  of a clinical trial, or otherwise improperly to benefit Pfizer's business activities.
- Business Associates, and those acting on their behalf in connection with work for Pfizer, need to understand whether local laws, regulations, or operating procedures (including requirements imposed by government entities such as government-owned hospitals or research institutions) impose any limits, restrictions, or disclosure requirements on compensation, financial support, donations, or gifts that may be provided to government officials. Business Associates, and those acting on their behalf in connection with work for Pfizer, must take into account and comply with any applicable restrictions in conducting their Pfizer-related activities. If a Business Associate is uncertain as to the meaning or applicability of any identified limits, restrictions, or disclosure requirements with respect to interactions with government officials, that Business Associate should consult with his or her primary Pfizer contact before undertaking their activities.

• Business Associates, and those acting on their behalf in connection with work for Pfizer, are not permitted to offer facilitation payments. A "facilitation payment" is a nominal, unofficial payment to a government official for the purpose of securing or expediting the performance of a routine, non-discretionary governmental action. Examples of facilitation payments include payments to expedite the processing of licenses, permits or visas for which all paperwork is in order. In the event that a Business Associate, or someone acting on their behalf in connection with work for Pfizer, receives or becomes aware of a request or demand for a facilitation payment or bribe in connection with work for Pfizer, the Business Associate shall report such request or demand promptly to his or her primary Pfizer contact before taking any further action.

### **Commercial Bribery**

Bribery and corruption can also occur in non-government, business to business relationships. Most countries have laws which prohibit offering, promising, giving, requesting, receiving, accepting, or agreeing to accept money or anything of value in exchange for an improper business advantage. Examples of prohibited conduct could include, but are not limited to, the provision of inappropriate gifts or hospitality, kickbacks, or investment opportunities offered to improperly induce the purchase of goods or services. Pfizer colleagues are not permitted to offer, give, solicit or accept bribes, and we expect our Business Associates, and those acting on their behalf in connection with work for Pfizer, to abide by the same principles.

### Anti-Bribery and Anti-Corruption Principles Governing Interactions with Private Parties and Pfizer Colleagues

Business Associates must communicate and abide by the following principles with regard to their interactions with private parties and Pfizer colleagues:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or authorize the making of a corrupt payment or provide anything of value to any person to induce that person to provide an unlawful business advantage for Pfizer.
- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly, solicit, agree to
  accept, or receive a payment or anything of value as an improper inducement in connection with their business activities performed for
  Pfizer.
- Pfizer colleagues are not permitted to receive gifts, services, perks, entertainment, or other items of more than token or nominal monetary value from Business Associates, and those acting on their behalf in connection with work for Pfizer. Moreover, gifts of nominal value are only permitted if they are received on an infrequent basis and only at appropriate occasions.

### Reporting Suspected or Actual Violations

Business Associates, and those acting on behalf in connection with work for Pfizer, are expected to raise concerns related to potential violations of these International Anti-Bribery and Anti-Corruption Principles or the law. Such reports can be made to a Business Associate's primary point of contact at Pfizer, or if an Associate prefers, to Pfizer's Compliance Group, by e-mail at corporate.compliance@pfizer.com or by phone at 1-212-733-3026.

#### **Exhibit C**

### Pfizer's Corporate Policy regarding Animal Care and Use (v. 1.2, June 18, 2017)

#### **BACKGROUND**

Pfizer is dedicated to helping people and animals live longer, healthier lives through the discovery and development of breakthrough medicines and therapies. Animal-based biomedical research in the pharmaceutical industry remains a vital component of the discovery, evaluation and regulatory processes, which lead to the development of products that save or improve human lives throughout the world. Pfizer's Animal Care and Use policy reflects our absolute commitment that all animals used by our business are treated humanely. This means that any research involving animals is conducted only after appropriate ethical consideration and review. This review ensures that we provide a high level of care to all animals used, and that a scientifically appropriate and validated alternative to the use of animals is not available.

### Why We Conduct Animal-based Biomedical Research

Pfizer is ethically and legally obliged to rigorously evaluate potential new medicines and therapies. Many of these evaluations can be, and are, accomplished by techniques that do not require the use of animals. However, given the present state of scientific knowledge, testing potential new medicines and therapies in animals is frequently critical to their evaluation, and is required by regulatory authorities worldwide to ensure the quality, efficacy and safety of the medicines we discover.

#### Pfizer's Commitment to Ethical and Humane Treatment of Animals

Pfizer accepts its responsibility to use animals in a humane and ethical manner and expects all Colleagues to treat animals with respect. We approach the use of animals in our business with a high level of humane and ethical concern for those animals. All use is carefully planned and conducted in such a way as to minimize or avoid pain, distress, or discomfort to the animals. Every proposed use is thoroughly evaluated before being undertaken as the health and well-being of all animals under our care is a primary concern. Similarly, we expect any Third Party organization we engage to conduct animal-based research on our behalf to adhere to this Policy and to comply with all applicable laws and regulations.

#### Pfizer's Commitment to Alternatives to Animal-based Biomedical Research

Pfizer is fully committed to the development and use of scientifically validated alternative testing methods that are acceptable to regulatory authorities and do not compromise patient safety or the effectiveness of our medicines. Pfizer continues to engage and lead cross-industry efforts aimed at developing and refining new in-vitro testing and predictive informatics-based systems that hold promise for future reduction of animal usage. Pfizer works directly with regulators and through pharmaceutical trade organizations to increase the recognition and acceptance of alternative models where such alternatives can be used appropriately.

### **POLICY**

For as long as it remains necessary to use animals in the discovery, development, evaluation and production of new medicines, we commit to maintaining high standards in the humane treatment of these animals. Significantly, we embrace the principles known as the "3Rs" of animal research first proposed in 1959 by Russell and Burch to describe the use of alternatives in animal research. These are:

**Replacement** of animal experiments with non-animal experiments such as mathematical models, computer simulations, and in-vitro biological systems wherever appropriate; and where animals must be used;

**Reduction** of the numbers of animals used in each study, and of the number of studies involving animals, to the absolute minimum necessary to obtain valid results and achieve our research objectives; and

**Refinement** of procedures involving animals to minimize the potential for pain and distress.

In addition to the 3R's, and to further assure we maintain high standards for our animals, we have adopted the following guidelines:

- When animal experimentation is necessary, great care is taken to choose the most appropriate animal species for the research and to
  optimize the study design to ensure that the results will be as meaningful as possible.
- Non-human primates will only be used when scientifically justified, for example in cases where other species will not provide sufficiently close analogues to the biological pathways and responses expected in humans.
- All studies are carefully designed to gain the maximum information from the fewest number of animals possible.
- Each proposed use of animals is reviewed and approved by a panel of objective experts prior to performing any experiments to ensure that the use of the animals is consistent with sound scientific practices and ethical considerations.
- Our standards of animal care and welfare meet or exceed those required by applicable local, national, or international laws and regulations.
- We regularly monitor our animals for signs of ill health or distress and take prompt action wherever appropriate. We make veterinary care
  available to our animals at all times.
- Our veterinarians and scientists evaluate every proposed animal procedure with an emphasis on eliminating or minimizing any potential for pain or distress which may be experienced by the animals.
- We train all Colleagues involved in the care, welfare and use of animals to ensure (a) that they are competent in the care of the animals and in the procedures required to complete the proposed work; (b) that they are aware of the ethical issues involved in the use of animals; and (c) that they demonstrate respect and humane treatment towards the animals in their care.
- We expect our contract research organizations, collaborators and vendors to maintain similar high standards. Parties conducting animal based research for Pfizer at their facilities are required to adhere to this Policy and to comply with all applicable laws and regulations. We perform welfare audits of Third Party facilities in accordance with our quality assurance policies.
- Because respect is a key tenant in our use of animals, we have also established standards regarding the use of animals in the marketing of Pfizer products. If advertisements featuring animals are used, any animal shown should be healthy and in a natural or appropriate setting. Non-human primates should not be used in the advertising of Pfizer products, and other wild animals will also not be used unless they are shown in their natural setting or portrayed through animation or computer-generated graphics.

This Policy represents Pfizer's commitment to high-quality animal care and welfare throughout our business, and to the replacement, reduction and refinement of the use of animals in research. We are equally committed to bringing important and safe new medicines to patients.

# Schedule 1.17

# Candidates

| [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |

# Schedule 1.36

# **Current Licenses**

[\*\*\*]

### Schedule 1.40

### **Developing Countries List**

[\*\*\*] [\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] [\*\*\*] l [\*\*\*]

91

[\*\*\*]

# Schedule 1.41

# **Initial Development Budget**

To be agreed by the Parties in accordance with Section 2.2 and added after the Signing Date.

# Schedule 1.77

# **Initial Manufacturing Plan**

To be agreed by the Parties in accordance with Section 2.2 and added after the Signing Date.

# Schedule 4.1

# **Commercialization Agreement Term Sheet**

[\*\*\*]

[\*\*\*]

**[\*\*\*]** [\*\*\*]

[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]
[\*\*\*]
[\*\*\*]
[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]

| [***] | [***] |
|-------|-------|
| [***] | [***] |
|       | [***] |
| [***] | [***] |
|       | [***] |
| [***] | [***] |

| [***] [***] [***] [***] [***] [***] [***] [***] [***] [***] |
|---|
| [***] [***] [***] [***] [***] [***]                         |
| [***] [***] [***] [***] [***] [***]                         |
| [***] [***] [***] [***] [***] [***]                         |
| [***] [***] [***] [***]                                     |
| [***] [***] [***] [***]                                     |
| [***] [***]<br>[***]  |
| [***]   |
|   |
|   |
| [+++] [+++]   |
| [***]   |

# ANNEX A ABAC Compliance Certification

[I/I on behalf of Party] hereby certify:

- 1. [I have/Party has] communicated our *International Anti-Bribery and Anti-Corruption Principles* to all persons acting on [my/its] behalf in connection with work under this Agreement, including any agents, contractors, or subcontractors;
- 2. With respect to any [Products], payments, or [Services] provided under this Agreement, [Party] has not taken any action directly or indirectly to (i) offer, promise, provide, or authorize the offer or provision of money or anything of value, in order to improperly or corruptly seek to influence any Government Official or any other person in order to obtain or retain business or any other improper business advantage; (ii) request or accept any such improper payment; or (iii) cause a violation of any applicable Anti-Corruption Law. For example, this includes providing any inducement for such Government Official or person to approve, reimburse, prescribe, or purchase a [Product], to influence the outcome of a clinical trial, or otherwise to benefit [Counterparty]'s business activities improperly;
- 3. [Party] has ensured that it and every agent, contractor, or subcontractor performing [Services] in connection with the Agreement has agreed to comply with and be bound by the provisions of the Agreement;
- 4. [Party has] met all relevant disclosure obligations required under the Agreement; and
- 5. To the extent requested by Pfizer, any persons acting on behalf of [me/Party] in connection with the Agreement, have completed anti-corruption compliance training provided by Pfizer.

| COMPANY NAME: |  |
|---------------|--|
| NAME:         |  |
| TITLE:        |  |
| DATE:         |  |

#### Schedule 5.5

# **Potential Third Party Funders**

[\*\*\*]

# Schedule 7.3.5 Decision-Making Rights

| [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|
| [***] | [***] |       |       |
|       | [***] |       |       |
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] |       |
| [***] | [***] | [***] | [***] |
|       |       |       |       |

| [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] |       |
| [***] | [***] | [***] |       |
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] |
| [***] | [***] | [***] |       |
| [***] | [***] | [***] |       |
|       |       |       |       |

| [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|
| [***] | [***] | [***] |       |
| [***] |       |       |       |
| [***] |       |       |       |
| [***] | [***] | [***] |       |
| [***] | [***] | [***] |       |
|       | [***] |       |       |

#### Schedule 9.1.1

# Responsibilities delegated to Pfizer in the USA or other countries in the Territory where it is the Lead Development Party

Subject to the Agreement, the activities delegated to Pfizer will be managed within Pfizer's quality systems including:

[\*\*\*]

## Schedule 9.2.7

# Pharmacovigilance Agreement Term Sheet

[\*\*\*]

#### Schedule 12.3 Disclosures [\*\*\*]

| [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |

## **Schedule 12.3.4**

**BioNTech Patent Rights existing as of the Effective Date** 

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|---|------|-------|-------|-------|-------|-------|-------|-------|-------|
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] |       |       |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|       |       |       |       |       |       |       |       |       |

| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|---|------|-------|-------|-------|-------|-------|-------|-------|-------|
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|---|------|-------|-------|-------|-------|-------|-------|-------|-------|
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [ | ***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|       |       |       |       |       |       |       |       |       |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |

|       | [***] |       |       |       |       |       |       |                |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |

|       | [***] |       |       |       |       |       |       | [***]                   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***]          |
|       |       |       |       |       |       |       |       |                         |

|       |       |       |       |       |       |       |            | [***] |
|-------|-------|-------|-------|-------|-------|-------|------------|-------|
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
| . ,   |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       | . ,        | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
| _     |       |       |       |       |       |       | - <b>-</b> | [***] |
|       |       |       |       |       |       |       |            | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***] |
|       |       |       |       |       |       |       |            |       |

|                |              |                |                  |                   |                |                |           | [***]          |
|----------------|--------------|----------------|------------------|-------------------|----------------|----------------|-----------|----------------|
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          |                |           | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          |                |           | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| Este ste ste T | F.d. d. d. 7 | Este ste ste 3 | Fale also also 3 | Falls also also 3 | Este ste ste 3 | Fals als als 3 |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          |           | [***]<br>[***] |
| [***]          | [***]        | []             | [***]            | [***]             | [***]          | []             |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          |           | [***]          |
| LJ             | [ ]          | r j            | L J              | r j               | r j            | r j            |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          |           | [***]          |
| . ,            | ,            | . ,            |                  |                   |                | . ,            |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          |                |           | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| Educated       | Educated     | Educate 3      | Educated 3       | Educated 3        | Educated 3     | Educate 3      | Educate 3 | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]<br>[***] |
| [***]          | []           | []             | []               | []                | []             | []             | []        | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| r i            | . ,          | r j            | L J              | r j               | L J            | r j            | Гј        | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                | . ,          | . ,            |                  |                   |                |                | . ,       | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                |              |                |                  |                   |                |                |           | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| Educated       | Educated     | Educate 3      | Educated 3       | Educated 3        | Educated 3     | Educate 3      | Educate 3 | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***1          | [***]     | [***]<br>[***] |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]<br>[***] |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
| r J            | r 1          | r J            | r j              | r J               | r J            | r J            | r J       | [***]          |
| [***]          | [***]        | [***]          | [***]            | [***]             | [***]          | [***]          | [***]     | [***]          |
|                | r 1          | . 1            |                  |                   |                |                |           | r 1            |

| ,              |                |                     |                |                     |                |                 |                  | [***]          |
|----------------|----------------|---------------------|----------------|---------------------|----------------|-----------------|------------------|----------------|
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
|                |                |                     |                |                     |                |                 |                  | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
|                |                |                     |                |                     |                |                 |                  | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| Fate attends 3 | Este ste ste 3 | آ باد باد باد ماد T | Fab. ab. ab. 3 | Fab. ab. ab. 7      | Este ste ste 3 | آ بلد بلد باد ۲ | Fale also also I | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| []             | []             | []                  | []             | [***]               | []             | []              | []               | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
|                |                |                     | . ,            |                     |                |                 |                  | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
|                |                |                     |                |                     |                |                 |                  | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
|                | L J            |                     | . ,            | L J                 | ı,             | L J             | . ,              | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
|                |                |                     |                |                     |                |                 |                  | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]<br>[***] |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |
| [***]          | آناه عادعاتاً  | [باستانات]          | [ቀላታ<br>የ      | [ \psi \psi \psi \] | [بديدي]        | [               | [ቀ ፡፡ ፡፡ ገ       | [***]          |
| [***]          | [***]          | [***]               | [***]          | [***]               | [***]          | [***]           | [***]            | [***]          |

|          |         |        |       |          |       |       |        | [***]          |
|----------|---------|--------|-------|----------|-------|-------|--------|----------------|
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| F1 1 1 3 | 51.1.13 | F1447  |       | F1 1 1 7 |       |       | F1447  | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| . ,      | . ,     | . ,    | . ,   | . ,      | . ,   | . ,   | . ,    | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| F1 1 2   | 51.1.13 | F11117 |       | F1 1 1 7 |       |       | F11117 | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]          |
| . ,      | L J     |        | . ,   | . ,      | . ,   | . ,   |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]          |
| F1 1 2   | 51.1.13 | F11117 |       | F1 1 1 7 |       |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] |       |        | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| . ,      | . ,     | . ,    | . ,   | . ,      | . ,   | . ,   | . ,    | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| [***]    | [444]   | [444]  | [+++] | [+++]    | [***] | [***] |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]          |
|          |         |        |       |          |       |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]<br>[***] |
| L J      | r i     | L J    | [ ]   | r 1      | [ ]   | [ ]   | LJ     | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] |       |        | [***]          |
|          |         |        |       |          |       |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] |       |        | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
|          |         |        |       |          |       |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] |        | [***]<br>[***] |
| LJ       | l J     | L J    | ſ J   | ſ J      | ſ J   | ſ J   |        | [***]          |
|          |         |        |       |          |       |       |        | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]<br>[***] |
| [***]    | [***]   | [***]  | [***] | [***]    | [***] | [***] | [***]  | [***]          |
|          |         |        |       |          |       |       |        |                |

| 2/2/2021 |       |       | EX-1  | 10.45 |               |                              |
|----------|-------|-------|-------|-------|---------------|------------------------------|
| [***]    | [***] | [***] | [***] | [***] | [***]         | [***]                        |
| [***]    | [***] | [***] | [***] | [***] | [***]         | [***]<br>[***]               |
| [***]    | [***] | [***] | [***] | [***] | [***]         | [***]<br>[***]               |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ | [***]<br>***] [***]<br>[***] |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ | ***] [***]                   |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ |                              |
| [***]    | [***] | [***] | [***] | [***] | [***] [***] [ | [***]<br>***] [***]          |
|          |       |       |       |       |               |                              |

| ۷. | 7272021 |       |       | EX-10.45 |       |       |       |       |                |
|----|---------|-------|-------|----------|-------|-------|-------|-------|----------------|
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]          |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    |         |       |       |          |       |       |       |       | [***]          |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   |       | [***] | [***]    | [***] |       | [***] |       | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    | [***]   | [***] | [***] | [***]    | [***] | [***] | [***] | [***] | [***]<br>[***] |
|    |         |       |       |          |       |       |       |       |                |

| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          |       | [***]<br>[***]          |
|----------------|-------|-------|----------------|----------------|-------|----------------|-------|-------------------------|
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          | [***] | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] |                |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] |                |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          | [***] | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          | [***] | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          | [***] | [***]<br>[***]<br>[***] |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          | [***] | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]<br>[***] | [***]<br>[***] |       | [***]<br>[***] |       | [***]<br>[***]          |
| [***]<br>[***] | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          |       | [***]          |       | [***]                   |
| [***]          | [***] | [***] | [***]          | [***]          | [***] |                | . ,   | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] |                |       | [***]<br>[***]          |
| [***]          | [***] | [***] | [***]          | [***]          | [***] |                |       | [***]<br>[***]<br>[***] |
| [***]          | [***] | [***] | [***]          | [***]          | [***] | [***]          |       | [***]<br>[***]          |
|                |       |       |                |                |       |                |       | r 1                     |

|       |       |         |       |       |         |       |         | [***]          |
|-------|-------|---------|-------|-------|---------|-------|---------|----------------|
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] |         | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| [444] | [444] | [444]   | [444] | [444] | [444]   | [444] | [444]   | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]<br>[***] |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| L J   | . ,   |         |       | . ,   |         |       | LJ      | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| 5     | F 3   | F1.1.13 |       |       | F1.1.13 |       | 51.1.17 | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]<br>[***] |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| LJ    | LJ    | L J     | r 1   | l J   | LJ      | l J   | r 1     | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]<br>[***] |
| L J   | LJ    | L J     | ſ J   | l J   | L J     | l J   | ſ ]     | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| -     |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]<br>[***] |
| L J   | LJ    | L J     | ſ J   | l J   | L J     | l J   | ſ ]     | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
| - 1   | - 1   | - 1     | - 1   | - 1   | - 1     | - 1   |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         | [***]          |
| [***] | [***] | [***]   | [***] | [***] | [***]   | [***] | [***]   | [***]          |
|       |       |         |       |       |         |       |         |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] |       |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|       |       |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|       |       |       |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|       |       |       |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | 40.40.40 | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|----------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]    | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ↑ ↑ ↑    | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | * * *    | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ***      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ***      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ***      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | * * *    | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | TTT      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ***      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | * * *    | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | ***      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | TTT      | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |          | [***]<br>[***] |

| ,     |       |       |       |       |       |       |                |
|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |

| ,     | [***] |       |       |       |       |       | [***] |
|-------|-------|-------|-------|-------|-------|-------|-------|
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |

| [***]         [***] <td< th=""><th>,</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<> | ,     |       |       |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| [***]       [***] <td< th=""><th>[***]</th><th>[***]</th><th>[***]</th><th>[***]</th><th>[***]</th><th>[***]</th><th>[***]</th><th></th><th>[***]</th></td<>  | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]       | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]       [***] <td< td=""><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td></td><td>[***]</td></td<>  | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]       [***] <td< td=""><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td>[***]</td><td></td><td>[***]</td></td<>  | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]       | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]     [***]       [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
|   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
| [***]     [***]     [***]     [***]   | [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***] |
|   | [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***] |

| 21212021 |       |         |       | LX-   | 10.43 |       |       |                |
|----------|-------|---------|-------|-------|-------|-------|-------|----------------|
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] |       |       | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] |       |       | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| F1 1 1 3 | 51113 | F1.1.13 | 51117 | F1447 |       | F1447 |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] |       | [***]          |
| [444]    | [***] | [+++]   | [+++] | [***] | [***] | [***] | [***] | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]          |
| []       | []    | []      | []    | []    | []    | []    | []    | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]          |
| LJ       |       | . ,     |       | [ ]   | . ,   |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]          |
| . ,      | ( )   | . ,     | L J   | . ,   | . ,   | . ,   | . ,   | . ,            |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
| [***]    | [***] | [***]   | [***] | [***] | [***] | [***] | [***] | [***]          |
|          |       |         |       |       |       |       |       | [***]          |
|          |       |         |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|       |       |       |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
|       |       |       |       |       |       |       |       |                |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
|       |       |       |       |       |       |       |                |

148

|       |       |       |       | _     |       |       |                |
|-------|-------|-------|-------|-------|-------|-------|----------------|
|       | [***] |       |       |       |       |       |                |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] |       |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |

| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]          |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |       | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |
|       |       |       |       |       |       |       |       |                |

|       | [***] |       |       |       |       |       |       | [***]          |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|       |       |       |       |       |       |       |       |                |

|       | [***] |       |       |       |       |       |       | [***]          |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]          |

|       |       |       |       |       |       |       |       | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]<br>[***] |

| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***]<br>[***] |
|-------|-------|-------|-------|-------|-------|-------|------------|----------------|
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***]      | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] | [***] | [***][***] | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |
| [***] | [***] | [***] | [***] | [***] | [***] |       |            | [***]          |

## Schedule 12.9

## BioNTech Management with Knowledge

[\*\*\*]

156