**Exhibit 10.15**

**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**

**Patent Sublicense Agreement**

This Patent Sublicense Agreement ("**Agreement**") is between CELLSCRIPT, LLC, a Wisconsin limited liability company having a place of business at 726 Post Road, Madison, WI 53713, USA, a Wisconsin limited liability company having a place of business at 726 Post Road, Madison, WI 53713, USA **("Cellscript")** and BioNTech AG, a German corporation having its principal place of business at An der Goldgrube 12, 55131 Mainz, Germany ("**Company**"). This Agreement is effective as of July 14, 2017 (the "**Effective Date**"). Each of Company and Cellscript are referred to herein as a "**Party**" and collectively as the "**Parties**".

**BACKGROUND**

WHEREAS, mRNA RiboTherapeutics, Inc. ("**mRNA RiboTherapeutics**") has an exclusive license from the Trustees of the University of Pennsylvania, a Pennsylvania nonprofit corporation ("**Penn**") for certain intellectual property comprising patents, patent applications and technology relating to [***] and certain other intellectual property comprising patents, patent applications and technology relating to [***], as stated in the second amended and restated patent license agreement which became effective December 20, 2016 (the "**Penn License Agreement**"), under which, Cellscript has a sublicense from mRNA RiboTherapeutics in certain fields of use as stated in the amended and restated patent sublicense agreement which became effective December 20, 2016 (the "**Cellscript Sublicense Agreement**") as amended on June 25, 2017, under which Cellscript has the right to further sublicense all or any part of the rights granted to Cellscript to other parties; and

WHEREAS, Company desires a sublicense from Cellscript under Patents Rights (as defined below) for *in vivo* uses in humans and non-human animals and certain other uses pertaining thereto and Cellscript is willing to grant to Company a sublicense under Patents Rights for such uses under the terms and conditions herein;

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

**1 SUBLICENSE**

1.1 Sublicense Grant. Cellscript hereby grants to Company and Company hereby accepts from Cellscript a worldwide, non-exclusive sublicense under the Patent Rights during the Term to make, have made, import, use, offer for sale, sell and/or have sold Licensed Products according to the terms and conditions herein: (1) in Field of Use B for all uses in the *In Vivo* Field of Use, including: (a) all therapeutic and prophylactic uses in humans; (b) all non-therapeutic and non-prophylactic uses in humans; and (c) all uses, including therapeutic and prophylactic uses (e.g., Veterinary Products), in non-human animals; and (2) in Field of Use A for: research and screening uses, including pre-clinical research and screening comprising *ex vivo* uses in human or non-human animal cells and *in vivo* uses in animals that pertain to and support research, development, manufacture, regulatory approval and commercialization of Licensed Products for use in humans and non-human animals in the *In Vivo* Field of Use in (1)(a) through (1)(c), as all Fields of Use in (1) and (2) (collectively, the "**Sublicensed Fields of Use**") and as said other terms which are not defined in this Section 1.1 are defined in Sections 1.2 and 6.1 herein (the "**Sublicense**"). The Sublicense includes the right for Company to grant sublicenses to its affiliates and Third Parties for all or any part of the rights and fields of use granted to Company, under terms that are consistent with this Agreement. No other rights or licenses are granted to Company hereunder by Cellscript. [***]

1.2 Related Definitions.

Whenever the words or terms "comprising," "containing," "having," "include," includes," "including," "such as," "for example," "an example," "examples," "e.g.," "for further clarification" or the like are used in this Agreement, they shall be understood to be followed by the words "without limitation" or "but without limitation". The terms "a," "an," and "the" and the use of such terms or nouns in definitions in either the singular or the plural are to be construed to cover both the singular and the plural unless otherwise noted.

"**Licensed Products**" means products that are made, made for, used, imported, offered for sale or sold by Company or its Affiliates or Third Party sublicensees and that, in the absence of a license to Patent Rights, (i) would infringe (or, in the case of pending patent applications, upon issuance, would infringe) at least one claim of the Patent Rights or (ii) use a process or machine covered by a claim of Patent Rights, whether the claim is issued or pending. For clarity, Licensed Products includes any method, procedure or process, the use of which by Company or its Affiliates or Third Party sublicensees, in the absence of a license to Patent Rights by the user, would infringe, induce to infringe or contribute to infringing one or more claims of Patent Rights whether the claim is issued or pending.

"**Exhibit A-1 Patent Rights**" means [***]

"**Exhibit A-2 Patent Rights**" means [***]

"**Patent Rights**" means Exhibit A-1 Patent Rights and/or Exhibit A-2 Patent Rights.

"**Exhibit D Patents**" means all of Penn's patent rights represented by or issuing from: (a) the United States patents and patent applications listed in Exhibit D; (b) any continuation, divisional, reexamination, and re-issue applications of (a); and (c) any extensions (a) or (b).

"**Affiliate**" means a legal entity that is controlling, controlled by or under common control with Company and that has executed either this Agreement, a sublicense for at least a portion of the rights granted to Company under this Agreement, or a written joinder agreement agreeing to be bound by all of the terms and conditions of this Agreement. The uncapitalized term "**affiliate**" means, with respect to a first legal entity, any other legal entity that is controlling, controlled by or under common control with said first legal entity. For purposes of the definitions of "Affiliate" and "affiliate" herein, the word "**control**" means (x) the direct or indirect ownership of fifty percent (50%) or more of the outstanding voting securities of a legal entity, (y) the right to receive fifty percent (50%) or more of the profits or earnings of a legal entity, or (z) the right to determine the policy decisions of a legal entity.

"**Field of Use A**" means and is limited to internal laboratory research or screening [***] For clarity, Field of Use A includes laboratory research use in animals or human or animal cells, living or dead, from any source, including for pre-clinical laboratory research in laboratory animals or cultured human or non-human animal cells for the purpose of generating data and information prior to use in clinical trials for a use that requires approval by the FDA or another regulatory organization. For further clarity, a party that has a sublicense in Field of Use A pertaining to a sublicensed therapeutic or prophylactic or diagnostic or prognostic use in Field of Use B shall have the right to perform pre-clinical research in Field of Use A comprising *in vivo* uses in non-human animals or *ex vivo* uses in human or non-human animal cells in order to obtain data and information to support pre-clinical development of such therapeutic, prophylactic, diagnostic or prognostic products.

[***]

"**Field of Use B**" means the field other than Field of Use A and includes but is not limited to therapeutic, prophylactic, diagnostic, prognostic and cosmetic uses in humans and agricultural, animal improvement and veterinary uses in animals. For clarity, Field of Use B includes any and all fields of use, including the *In Vivo* Field of Use and *Ex Vivo* Field of Use, other than for Field of Use A.

"**Fields of Use**" means Field of Use A and Field of Use B.

"***Ex Vivo* Field of Use**" is a subfield of Field of Use A or Field of Use B wherein a product or method that is covered by Patent Rights (or Exhibit D Patents) is used in cells, tissues or organs that are *ex vivo* or outside of a living human or animal body or organism, whether those cells, tissues or organs are subsequently used only *ex vivo*, such as in culture, or are subsequently introduced into, used in or administered or applied to or on a living body or organism. [***]

"***In Vivo* Field of Use**" is a subfield of Field of Use A or Field of Use B wherein a product or method that is covered by Patent Rights (or Exhibit D Patents) is used *in vivo*, [***]

"**Diagnostic and Prognostic Field of Use**" is a subfield of use within Field of Use B wherein a product or service covered by Patent Rights (or Exhibit D Patents) is used for diagnosis, prognosis or testing of a human or non-human animal or a sample therefrom in order to detect, identify, determine a cause, evaluate, analyze, understand, predict, rule in, or rule out a medical condition or disease or to predict an effect or response to treatment, and/or to monitor the effect of a treatment of such medical condition or disease. For clarity, a party that has a sublicense to make, have made, import, use, offer to sell and/or sell a Licensed Product for the Diagnostic and Prognostic Field of Use in conjunction with or pertaining to a product covered by Patent Rights (or Exhibit D Patents) for the *In Vivo* Field of Use in Field of Use B shall have the right to use said Licensed Product for diagnosis, prognosis or testing of a human or non-human animal or a sample therefrom, whether said diagnosis, prognosis or testing is performed *in vitro*, *in vivo* and/or *ex vivo*.

"**Veterinary Product**" means a product that is covered by Patent Rights (or Exhibit D Patents) which is used for the care, treatment, breeding or use of livestock or companion animals.

"**Third Party**" means any person, corporation, partnership, association, consortium or business, legal or governmental entity other than Penn, Cellscript, Company or any of their respective affiliates.

"**Infectious Disease Vaccine Subfield**" is a subfield of Field of Use B wherein a product that is covered by Patent Rights is used as a vaccine for prevention or treatment of one or more infectious disease(s) caused by an infectious agent or agents consisting of viruses, bacteria, fungi, protozoa or parasites. For clarity, the Infectious Disease Vaccine Subfield does not include the right to use Patent Rights to make, have made, import, use, offer for sale, sell and/or have sold any product that is covered by Patent Rights for prevention or treatment of any cancer (e.g., as a therapeutic or prophylactic cancer vaccine) in humans or animals.

1.3 Reservation of Rights by Penn. Penn reserves the right to use, and to permit other non-commercial entities to use, the Patent Rights for educational and non-commercial research purposes.

[*Remainder of page left blank*]

1.4 U.S. Government Rights. The Parties acknowledge that the United States government retains rights in intellectual property funded under any grant or similar contract with a Federal agency. The License is expressly subject to all applicable United States government rights, including, but not limited to, any applicable requirement that products, which result from such intellectual property and are sold in the United States, must be substantially manufactured in the United States. To the extent any such U.S. manufacturing requirements apply, Cellscript shall, upon request of Company, use commercially reasonable efforts to cause Penn to seek a waiver from the United States government for Company in respect of such U.S. manufacturing requirements.

1.5 Sublicense Conditions. Company's right to extend any or all of the rights granted to Company by Cellscript via a sublicense to affiliates or Third Parties is subject to each of the following conditions:

1.5.1 Company will have the right to grant further sublicenses to its affiliates and to Third Parties ("**sub-sublicensees**") that permit multiple levels of sublicensing, including in Third Party sub-sublicenses that permit further levels of sublicensing (e.g., to "sub-sub-sublicensees"). In each further sub-sublicense agreement to an affiliate or Third Party, Company will require the sub-sublicensee to comply with terms and conditions that are consistent with this Agreement, and in each agreement for further sublicensing (e.g., by a sub-sublicensee of Company to a sub-sub-sublicensee), the party granting the further sublicense will require the party receiving the further sublicense to comply with terms and conditions that are consistent with its sub-sublicense agreement from Company. Except when used to clarify the meaning of the different terms in this Section 1.5.1, the term sublicense in this Agreement includes any permitted sub-sublicense, sub-sub-sublicense, etc. and the term sublicensee includes any permitted sub-sublicensee, sub-sub-sublicensee, etc.

1.5.2 Within [***] days after Company enters into a sublicense agreement, Company will deliver to Cellscript a complete and accurate copy of the entire sublicense agreement written in the English language, provided that Company will have the right to redact the terms and conditions of such sublicense agreement that are not necessary for Cellscript to confirm compliance with all terms and conditions required under this Sublicense, including Section 1.5 hereof. Cellscript's receipt of the sublicense agreement will not constitute a waiver of any right or obligation of Cellscript or of Company under this Agreement.

1.5.3 In the event that Company causes or experiences a Trigger Event (as defined in Section 6.4), to the extent permissible by law, all payments due to Company from its direct sublicensees pursuant to a sublicense to this Agreement that are payable by Company to Cellscript hereunder, including milestone payments and royalty payments, will, upon notice from Cellscript to such sublicensees, become payable directly to Cellscript for the account of Company. Upon receipt of any such funds, Cellscript will remit to mRNA RiboTherapeutics the amounts owed to mRNA RiboTherapeutics and will remit to Company the amount (if any) by which such payments from such sublicensees exceed the amounts owed by Company to Cellscript hereunder. Still

further, in the event that mRNA RiboTherapeutics causes or experiences a trigger event according to the terms of the Penn License Agreement, Cellscript agrees that, upon notification from Penn, Cellscript will remit to Penn all amounts payable by Cellscript to mRNA RiboTherapeutics under the Cellscript Sublicense Agreement (including but not limited to all milestone payments and royalty payments) for the account of mRNA RiboTherapeutics.

1.5.4 Company's execution of a sublicense agreement will not relieve Company of any of its obligations under this Agreement. Company is primarily liable to Cellscript for any act or omission of a sublicensee that would be a breach of this Agreement if performed or omitted by Company, and Company will be deemed to be in breach of this Agreement as a result of such act or omission. Upon learning of any such breach of this Agreement due to an act or omission of a sublicensee of Company, Company will immediately take appropriate actions to stop such act or omission, including termination of the sublicense by Company. Provided that Company takes such appropriate actions and stops such act or omission, a breach by said sublicensee shall not be considered a breach by Company that will be considered a cause for termination of this Agreement under Section 6.3.

1.5.5 A sublicense granted by the Company or a further sublicensee thereof will not be assignable or transferable by said sublicensee or further sublicensee thereof without the prior written consent of Cellscript, except to an affiliate of the sublicensee of Company or an affiliate of said further sublicensee thereof, or to a Third Party company that: (i) can demonstrate based on reliable financial information that it has all technical knowledge, capabilities and/or financial resources needed to perform in all respects in the place and stead of said sublicensee or further sublicensee thereof; (ii) agrees to assume all duties and responsibilities under the sublicense; (iii) warrants that it will invest an amount of money that Company agrees is sufficient to develop and/or commercialize the sublicensed Licensed Product(s); (iv) purchases more than fifty percent (50%) of all of the sublicensee's or the further sublicensee's shares or assets to which the sublicense pertains; and (v) agrees in writing to be bound by all of the terms and conditions of the sublicense and a copy of such written undertaking is promptly provided to Company, which will provide a copy to Cellscript, which, in turn, will provide a copy to mRNA RiboTherapeutics.

1.6 No License by Implication. Nothing in this Agreement confers by estoppel implication or otherwise, any license or rights under any Penn patent other than rights granted under patents included in the Patent Rights and Exhibit D Patents, regardless whether such patents are dominant or subordinate to the Patent Rights and Exhibit D Patents.

1.7 License to the Exhibit D Patents. Whereas Cellscript has an exclusive license from Penn for certain other U.S. patents and patent applications listed in Exhibit D attached hereto, including any continuation, divisional, reexamination, and re-issue applications and any patents or extensions of any of the foregoing (collectively referred to as "**Exhibit D Patents**" herein), which Exhibit D Patents are not included in Patent Rights herein; and whereas, Company desires a sublicense to Exhibit D Patents in the Sublicensed Fields of Use during the Term and Cellscript is willing to grant such a sublicense in the Sublicensed Fields of Use according to the terms and conditions herein, now, therefore, Cellscript hereby grants to Company and Company hereby accepts from Cellscript a limited worldwide, non-exclusive sublicense under Exhibit D Patents during the Term to make, have made, import, use, offer for sale, sell and/or have sold products comprising mRNA containing pseudouridine solely in the Sublicensed Fields of Use, and according to the terms and conditions herein**.** The sublicense includes the right for Company to grant sublicenses to its Affiliates and Third Parties for all or any part of the rights granted to Company in the Sublicensed Fields of Use, under terms that are consistent with this Agreement.

No other rights or licenses pertaining to Exhibit D Patents are granted by Cellscript to Company under this Agreement. For clarity, no rights or licenses are granted by Cellscript to Company: (x) in Field of Use A for the Research Products Field of Use; or (y) in Field of Use B for any use in humans or non-human animals for (i) the *Ex Vivo* Field of Use, or (ii) the Diagnostic and Prognostic Field of Use, or (iii) to make, have made, import, use, offer for sale, sell and/or have sold any product covered by Exhibit D Patents which does not comprise or use mRNA comprising pseudouridine. Company understands and agrees that, since the products sublicensed to Company pursuant to this Section 1.7 comprise or use mRNA comprising pseudouridine (which products are also covered by Patent Rights), Company shall pay to Cellscript the same milestone and other fees and royalties owed by Company pursuant to Article 3 of this Agreement; however, Company shall not owe any additional milestone or other fees or royalties for products covered by Exhibit D Patents in addition to the amounts owed by Company pursuant to Article 3 of this Agreement.

1.8 Relation of this Agreement to mRNA RiboTherapeutics Sublicense Agreement. Concurrent with the execution of this Agreement, Company is entering into a separate sublicense agreement with mRNA RiboTherapeutics (the "**mRNA RiboTherapeutics Sublicense Agreement**"), pursuant to which mRNA RiboTherapeutics is granting Company a sublicense under Patent Rights with respect to certain fields of use that are different from and are not included within the scope of the Sublicense granted to Company in this Agreement**.**

## 2 DILIGENCE

2.1 Development Plan and Sublicense Disclosure Report. By [***] and by [***] of every calendar year thereafter that encompasses the Term, Company will deliver to Cellscript: (1) a copy of an annual development plan, including a projected timeline, for the Patent Rights and a summary of material development efforts for Licensed Products since the last development plan ("**Development Plan**"); and [***] certified as correct by the accounting services manager or chief financial officer, that includes all additional information as listed on Exhibit B for the period since the last SDR.

2.2 Company's Efforts. Company will use commercially reasonable efforts to develop, commercialize, market and sell Licensed Products in the Sublicensed Fields of Use in a manner consistent with the Development Plan. In addition to Company's own efforts to develop, commercialize, market and sell Licensed Products, the efforts of other parties, including Affiliates, Third Party sublicensees, contractors, Third Parties funded by Company under a research or service agreement, and distributors, will also be deemed as efforts of Company.

2.3 Diligence Events. Company, whether itself, or through its Affiliates, Third Party sublicensees, contractors, or Third Parties funded by Company under a research or service agreement, will use commercially reasonable efforts to achieve each of the milestone diligence events by the applicable completion date listed in the table below for the first Licensed Product for human therapeutic or prophylactic use in Field of Use B. Company will provide Cellscript with written notice within [***] days of first completion of each milestone diligence event for a Licensed Product for human therapeutic or prophylactic use in Field of Use B by Company or an Affiliate or Third Party sublicensee.

[*Remainder of page left blank*]

[***]

2.4 Diligence Resources. Until the first Sale of the first Licensed Product in Field of Use B, Company will expend financial resources for the development and commercialization of the Licensed Products in amounts not less than the diligence minimums specified in the table below ("**Development Expenditures**") in each [***] month period following the Effective Date. Development Expenditures shall include all research and development expenditures directly relating to Licensed Products, including salaries, overhead, sponsored research payments, contract research, regulatory expenses, and documented external consulting payments. Company's expenditures of financial resources for the development and commercialization of Licensed Products in Field of Use B in amounts not less than the specified Development Expenditures will be deemed commercially reasonable efforts to develop, commercialize, market and sell Licensed Products in Field of Use B. If Company's total expenditures for development and commercialization of Licensed Products in any [***] month period ending on an anniversary of the Effective Date do not meet or exceed the applicable diligence minimum, then Company will pay to Cellscript the amount of the shortfall. Company will make any payments of the shortfall to Cellscript together with the next Development Plan due to Cellscript under Section 2.1.

[***]

## 3 FEES AND ROYALTIES

3.1 Sublicense Grant Fees. In partial consideration for the Sublicense, Company will pay to Cellscript: (i) [***]; and (ii) [***] and (iii) [***]

[*Remainder of page left blank*]

3.2 Sublicense Maintenance Fees. In partial consideration of the Sublicense, Company will pay to Cellscript [***] on each anniversary of the Effective Date during the Term until the date of first Sale of the first Licensed Product in Field of Use B, regardless of whether the Sale is achieved by Company, Cellscript, or an affiliate or sublicensee of any of the foregoing. For clarity, the next annual sublicense maintenance fee under this Agreement is payable to Cellscript on [***] if no Sale of a Licensed Product in Field of Use B occurs prior to [***]

3.3 Milestone Payments. In partial consideration of the Sublicense, Company will pay to Cellscript any milestone payment that is applicable to a Licensed Product developed by the Company under any of the tables in this Section 3.3 the first time after achieving each milestone event for each said Licensed Product in Field of Use B, regardless of whether the milestone is achieved by Company, an Affiliate or a Third Party sublicensee. Company will provide Cellscript with written notice within [***] days after each milestone is achieved by Company or a sublicensee and Company will pay to Cellscript all applicable milestone payments owed therefor within [***] days of the end of the calendar quarter in which the milestone event is achieved. For clarity, each time a milestone is achieved with respect to a Licensed Product, then any other milestone payments with respect to earlier milestones that have not yet been paid will be due and payable together with the milestone payment that is actually achieved. For clarity, if a Licensed Product being developed by Company or its sublicensees does not fall into one of the categories in the tables below, Company will notify Cellscript promptly after identifying the Licensed Product and the Parties will negotiate in good faith appropriate milestones based on the relative value of the product category and the development pathway.

**Section 3.3 Table A**
**MILESTONES for each Licensed Product for**
**human therapeutic or prophylactic use in the *In Vivo* Field of Use**

[***]

**Section 3.3 Table C**
**MILESTONES for each Licensed Product that is a Veterinary Product**

[***]

3.4 Earned Royalties. In partial consideration of the Sublicense, Company will pay to Cellscript royalties on Net Sales of Licensed Products in the Sublicensed Fields of Use as stated below.

3.4.1 Earned Royalties on Licensed Products in Field of Use A. In partial consideration of the Sublicense, Company will pay to Cellscript a [***] royalty on Net Sales of Licensed Products by Company or its Affiliates or Third Party sublicensees for use in the Sublicensed Fields of Use in Field of Use A during the Quarter. For the avoidance of doubt, if Company or any Affiliate or Third Party sublicensee sells or is reimbursed for the costs of providing a Licensed Product for use in Field of Use A to another party with which it has a contract to collaborate or work together on researching, developing or screening related to a product for human therapeutic or prophylactic use in the *In Vivo* Field of Use, then Company will pay to Cellscript a [***] royalty on all such Net Sales of Licensed Products for use in Field of Use A by Company or by said sublicensees. For clarity, Company and its Affiliates or Third Party sublicensees shall only have the right to sell Licensed Products for use in Field of Use A to Third Parties that have either a sublicense from or a contract with Company or an Affiliate or Third Party sublicensee to research, develop, test, evaluate, screen, manufacture and/or commercialize a Licensed Product for use in the *In Vivo* Field of Use in Field of Use B.

3.4.2 Earned Royalties on Licensed Products Field of Use B. In partial consideration of the Sublicense, Company will pay to Cellscript a [***] royalty on Net Sales of Licensed Products in Field of Use B for all uses in the *In Vivo* Field of Use, including: (a) all therapeutic or prophylactic uses in humans; (b) all non-therapeutic or non-prophylactic uses in humans; and (c) all uses, including therapeutic and prophylactic uses (e.g., Veterinary Products), in non-human animals during the Quarter. For the avoidance of doubt, if Company or its Affiliates or Third Party sublicensees grant sublicenses to sell Licensed Products for any such uses in Field of Use B, Company will pay to Cellscript a [***] royalty on Net Sales of all such Licensed Products sold by said sublicensees. For clarity, no royalties are due under this Agreement for Sales of Licensed Products in the Diagnostic and Prognostic Field of Use, which are sublicensed to Company in the Sublicense Agreement from mRNA RiboTherapeutics.

3.4.3 Royalty Reduction. If Company or an Affiliate or Third Party sublicensee of Company is obligated to pay Third Party Royalties (defined below) for a Licensed Product in Field of Use B, then Company may deduct [***] of such Third Party Royalties from any royalties on Net Sales in Field of Use B due to Cellscript under Section 3.4.2 of this Agreement, provided that:

(a) On an ongoing basis and prior to reduction of any royalty on Net Sales for a given calendar quarter, Company first provides written evidence to Cellscript of Company's or applicable sublicensee's obligation to pay such Third Party Royalties; and

(b) In no event shall royalties on Net Sales due to Cellscript in any reporting period be so reduced to less than [***] for Licensed Products for use in the *In Vivo* Field of Use in Field of Use B.

"**Third Party Royalties**" means any royalty obligation in excess of [***] that Company or an Affiliate or a Third Party sublicensee owes to one or more other parties pursuant to one or more licenses for patent rights comprising [***] and that are determined to be necessary to avoid infringement-related litigation with respect to the manufacture, use or sale of any Licensed Product.

3.5 Related Definitions.

3.5.1 The term "**Sale**" means any bona fide transaction for which consideration is received or expected by Company or its Affiliates or Third Party sublicensees for the sale, use, lease, transfer or other disposition of a Licensed Product to a Third Party. A Sale is deemed completed at the time that Company or an Affiliate or Third Party sublicensee invoices, ships or receives payment for a Licensed Product, whichever occurs first.

3.5.2 The term "**Quarter**" means each three-month period beginning on the first day of January, April, July or October.

3.5.3 The term "**Net Sales**" means the consideration received or expected from, or the fair market value attributable to, each Sale, less Qualifying Costs that are directly attributable to a Sale, specifically identified on an invoice or other documentation and actually borne by Company or its Affiliates or Third Party sublicensees. For purposes of determining Net Sales, the words "**fair market value**" mean the cash consideration that Company or its Affiliates or Third Party sublicensees would realize from an unrelated buyer in an arm's length sale of an identical item sold in the same quantity and at the time and place of the transaction.

3.5.4 The term "**Qualifying Costs**" means: (a) credits or refunds for claims or returns that do not exceed the original invoice amount; (b) prepaid outbound transportation expenses and transportation insurance premiums; and (c) sales and use taxes and other fees imposed by and indefeasibly paid to a governmental agency.

3.6 Minimum Royalties. In partial consideration of the Sublicense, [***] Company will pay to Cellscript the amount, if any, by which the applicable minimum royalties listed in the tables below exceed Company's or its Affiliates' or Third Party sublicensees' actual earned royalties under Section 3.4 for each Quarter after the first Sale of a Licensed Product by Company or its Affiliates or Third Party sublicensees in the applicable Categories. The minimum royalties are divided into two Categories and outlined in the tables below and are tiered, cumulative and individually payable after first Sale of Licensed Product in each of the three respective Categories. For clarity, the highest minimum royalty owed by Company to Cellscript under this Agreement would be [***] For additional clarification, Company is not obligated to pay minimum royalties to Cellscript for Licensed Products in Category 1 until after the first Sale of a Licensed Product in Field of Use A by Company or its Affiliates or Third Party sublicensees; Company is not obligated to pay minimum royalties to Cellscript for Licensed Products in Category 2 until after the first Sale of a Licensed Product in Field of Use B for human therapeutic or prophylactic use in the *In Vivo* Field of Use by Company or its Affiliates or Third Party sublicensees; and Company is not obligated to pay minimum royalties to Cellscript for Licensed Products in a Category 3 until after the first Sale of Licensed Product in Field of Use B that is not a humans therapeutic or prophylactic by Company or its Affiliates or Third Party sublicensees.

**Category 1 - Licensed Products in Field of Use A**

| QUARTER: | First Four Quarters | All Subsequent Quarters |
|---|---|---|
| **MINIMUM:** | [***] | [***] |

**Category 2 - Licensed Products in Field of Use B For Therapeutic or Prophylactic Use in Humans**

| QUARTER: | First Four Quarters | All Subsequent Quarters |
|---|---|---|
| **MINIMUM:** | [***] | [***] |

**Category 3 - Licensed Products in Field of Use B That Are NOT For Therapeutic or Prophylactic Use in Humans**

| QUARTER: | First Four Quarters | All Subsequent Quarters |
|---|---|---|
| **MINIMUM:** | [***] | [***] |

**4 REPORTS AND PAYMENTS**

4.1 Royalty Reports. Within [***] days after the end of each Quarter following the first Sale, Company will deliver to Cellscript a report, certified as accurate by the accounting services manager or chief financial officer of Company, detailing the calculation of all royalties, fees and other payments due to Cellscript for such Quarter. The report will include, at a minimum, the following information for the Quarter, each listed by product, by country: [***]

[*Remainder of page left blank*]

4.2 Payments. Company will pay all royalties, fees and other payments due to Cellscript under Sections 3.3, 3.4 and 3.6 within [***] days after the end of the Quarter in which the royalties, fees or other payments accrued. Cellscript agrees that it will pay all such amounts to mRNA RiboTherapeutics according to and within the time periods required by the Cellscript Sublicense Agreement, and mRNA RiboTherapeutics will pay to Penn all royalties, fees and other payments due to Penn according to and within the time periods required by the Penn License Agreement. For clarity, only one royalty will be due with respect to the Sale of the same unit of Licensed Product.

4.3 Records. Company will maintain, and will cause its Affiliates and Third Party sublicensees to maintain, complete and accurate books, records and related background information to verify Sales, Net Sales, and all of the royalties, fees, and other payments due or paid under this Agreement, as well as the various computations reported under Section 4.1. The records for each Quarter will be maintained for at least [***] years after submission of the applicable report required for Section 4.1.

4.4 Audit Rights. Upon reasonable prior written notice to Company, Company and its Affiliates and Third Party sublicensees will provide Penn and its accountants (or Cellscript and its accountants in the event that Cellscript is Penn's designated auditor) with access to all of the books, records, key personnel and related background information required by Section 4.3 to conduct a review or audit of Sales, Net Sales, and all of the royalties, fees, and other payments payable under this Agreement. Access will be made available: (a) during normal business hours; (b) in a manner reasonably designed to facilitate such accountant's review or audit without unreasonable disruption to Company's business; and (c) no more than once each calendar year during the Term (as defined below) and for a period of [***] years thereafter. Company will promptly pay to Cellscript the amount of any underpayment determined by the review or audit, plus accrued interest. If the review or audit determines that Company has underpaid any payment by [***] or more, then Company will also promptly pay the costs and expenses of the auditing party's accountants in connection with the review or audit. In addition, once annual Sales of Licensed Products exceed [***] Company will conduct, at least once every [***] years at its own expense, an independent audit of Sales, Net Sales, and all of the royalties, fees, and other payments due or paid under this Agreement for the period since the last such audit. Promptly after completion of the audit, Company will provide to Cellscript a copy of the report of the independent auditors along with any underpayments and interest thereon.

4.5 Currency. All dollar amounts referred to in this Agreement are expressed in United States dollars. All payments will be made in United States dollars. If Company receives payment from a sublicensee in a currency other than United States dollars for which a royalty or fee is owed under this Agreement, then (a) the payment will be converted into United States dollars at the conversion rate for the foreign currency as published in the eastern edition of the Wall Street Journal as of the last business day of the Quarter in which the payment was received by Company, and (b) the conversion computation will be documented by Company in the applicable report delivered to Cellscript under Section 4.1.

[*Remainder of page left blank*]

4.6 Place of Payment. All payments by Company to CELLSCRIPT, LLC and will be made to the following addresses:

[***]

4.7 Interest. All amounts that are not paid by Company when due will accrue interest from the date due until paid at a rate equal to [***] (or the maximum allowed by law, if less).

## 5 CONFIDENTIALITY AND USE OF NAMES

5.1 Confidentiality. Each Party agrees that it will not, under this Agreement, provide to the other Party or its affiliates any Confidential Information of such Party unless (i) such Party has first identified the general nature of such Confidential Information to such other Party in writing and such other Party has affirmatively agreed in writing to receive such Confidential Information, or (ii) such other Party has specifically requested such Confidential Information in writing. For clarity, any such consent or request issued by email or other written electronic means shall satisfy the foregoing "writing" requirements. Any Confidential Information disclosed by a Party to the other Party other than in accordance with this Section 5.1 will be deemed not to be Confidential Information of such Party. Notwithstanding the foregoing, Cellscript is obligated to accept and treat as confidential any Confidential Information disclosed by Company in the reports or notices required by Sections 2.1, 2.3, 3.3, 3.4.3(a), 4.1, 4.4, 4.5, 4.6 and 6.6, which information Company agrees Cellscript may disclose to mRNA RiboTherapeutics or Penn without the prior written consent of Company.

5.2 Confidential Information. Each Party ("**Disclosing Party**") may disclose to the other Party ("**Receiving Party**"), and Receiving Party may acquire during the course and conduct of activities under the Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term "**Confidential Information**" shall mean all ideas and information of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party in accordance with Section 5.1.

5.3 Restrictions. During the Term and for **[***]** years thereafter, Receiving Party shall keep all Disclosing Party's Confidential Information in confidence with the same degree of care with which Receiving Party holds its own confidential information. Receiving Party shall not use Disclosing Party's Confidential Information except in connection with the performance of its obligations and exercise of its rights under this Agreement. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform Receiving Party's obligations or exercise Receiving

Party's rights under this Agreement, provided said affiliates and their employees, subcontractors, consultants or agents are required to comply with a written confidentiality agreement having restrictions on use and disclosure of Disclosing Party's Confidential Information which are no less stringent than those in this Section 5.3. Receiving Party assumes responsibility for compliance with such restrictions by its affiliates and their employees, subcontractors, consultants or agents.

5.4 Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information shall not apply to the extent that Receiving Party can demonstrate, as evidenced by contemporaneous written records, that the Disclosing Party's information: (i) was known to Receiving Party or any of its affiliates prior to the time of disclosure; (ii) is or becomes public knowledge through no fault or omission of Receiving Party or any of its affiliates; (iii) is obtained by Receiving Party or any of its affiliates from a Third Party under no obligation of confidentiality to Disclosing Party; (iv) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its affiliates without the aid, application or use of Disclosing Party's Confidential Information or (v) is not Confidential Information under Section 5.1.

5.5 Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

5.5.1 in order to comply with applicable law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;

5.5.2 in connection with prosecuting or defending litigation, regulatory approvals and other regulatory filings and communications, and filing, prosecuting and enforcing Patents in connection with Receiving Party's rights and obligations pursuant to this Agreement; and

5.5.3 in connection with exercising its rights hereunder, to its affiliates; to potential and future collaborators and sublicensees; permitted acquirers or assignees; and investment bankers, investors and lenders, except that Cellscript will obtain the prior written consent of Company before disclosing any information disclosed to Cellscript pursuant to Sections 2.1, 2.3, 3.3, 3.4.3(a), 4.1, 4.4, 4.6 and 6.6;

provided that (1) with respect to Sections 5.5.1 or 5.5.2, where reasonably possible, Receiving Party shall notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to Section 5.5.3, each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 5.3 (other than investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

5.6 Terms of this Agreement. The Parties agree that the terms of this Agreement shall be treated as Confidential Information of both Parties, and thus may be disclosed only as permitted by Section 5.5. Each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld.

5.7 Relationship to the Confidentiality Agreement. This Agreement is in addition to certain "**Confidentiality Agreements**" between the Parties dated the 1st of January, 2014, and the 4th of January, 2017, and (a) all "Confidential Information" as defined therein that is disclosed or received by the Parties prior to the Effective Date shall continue to be subject to the terms and conditions of the Confidentiality Agreement and (b) all Confidential Information disclosed or received by the Parties following the Effective Date shall be subject to the terms and conditions of this Agreement. For the avoidance of doubt, all other confidentiality agreements concluded between Cellscript and Company prior to the Effective Date of this Agreement shall be superseded by this Agreement.

5.8 Use of Penn's, Cellscript's or Company's Name. Company and its Affiliates, Third Party sublicensees, employees, and agents are not granted any rights hereunder to use the name, logo, seal, trademark, or service mark (including any adaptation of them) of Penn or any Penn school, or their respective organizations, employees, students or representatives, without the prior written consent of Penn. Except to the extent permitted pursuant to this Article 5, neither Party shall have any right, express or implied, to use in any manner the name or other designation of the other Party or any other trade name or trademark of the other Party for any Purpose, except as may be required by applicable law or regulation.

## 6 TERM AND TERMINATION

6.1 Term. This Agreement will commence on the Effective Date and terminate upon the expiration or abandonment of the last patent to expire or become abandoned of the Patent Rights and Exhibit D Patents (the "**Term**").

6.2 Early Termination by Company. Company may terminate this Agreement at any time effective upon completion of each of the following conditions: (a) providing at least [***] days prior written notice to Cellscript of such intention to terminate; (b) ceasing to make, have made, use, import, offer for sale and sell all Licensed Products under the Sublicense; (c) providing documentation stating that all sublicenses granted by Company which are still in force at the date of termination can be assigned to Cellscript and working with Cellscript to assign or terminate such sublicenses based on the specific circumstances related thereto; and (d) paying all amounts owed to Cellscript under this Agreement through the effective date of termination. For clarity, Company may individually terminate either the Sublicense to Exhibit A-1 Patent Rights or the Sublicense to Exhibit A-2 Patent Rights or the Sublicense to Exhibit D Patents provided that each of the conditions stipulated in Section 6.2 is met with respect to the Patent Rights and Exhibit D Patents terminated from the Sublicense. [***]

6.3 Early Termination by Cellscript. Cellscript may, to the extent permissible by law, terminate this Agreement if: (a) Company is more than [***] late in paying to Cellscript any amounts owed under this Agreement and does not pay Cellscript in full, including accrued interest, within [***] after receiving written notice of the breach from Cellscript (a "**Payment Default**"); or (b) other than a Payment Default, Company materially breaches this Agreement and Company does not cure the breach within [***] after receiving written notice of the breach from Cellscript; or (c) Company causes or experiences a Trigger Event, or an Affiliate or Third Party sublicensee of Company commences or causes a Patent Challenge (as defined Section in 6.4 below) and Company does not terminate the sublicense or cause the Patent Challenge to be terminated prior to or promptly upon learning of said Patent Challenge. It is understood that, with respect to both of (a) and (b), Company is also responsible for its Affiliates and Third Parties sublicensees.

6.4 Trigger Event. The term "**Trigger Event**" means any of the following: (a) Company (i) becomes insolvent, bankrupt or generally fails to pay its debts as such debts become due, (ii) is adjudicated insolvent or bankrupt, (iii) admits in writing its inability to pay its debts, (iv) suffers the appointment of a custodian, receiver or trustee for its assets and, if appointed without its consent, not discharged [***], (v) makes an assignment of its assets for the benefit of creditors, or (vi) suffers proceedings being instituted against it under any law related to bankruptcy, insolvency, dissolution, liquidation or the reorganization, readjustment or release of multiple debtors and, if contested by it, not dismissed or stayed within [***]; (b) the institution or commencement by Company of any proceeding under any law related to bankruptcy, insolvency, liquidation or the reorganization, readjustment or release of multiple debtors; (c) the entering of any order for relief relating to any of the proceedings described in Section 6.4(a) or (b) above; (d) the calling by Company of a meeting of multiple creditors with a view to arranging a composition of adjustment of its debts; (e) the act or failure to act by Company that results in its consent to, approval of, or acquiescence in any of the proceedings described in Section 6.4(a) - (d) above; or (f) the commencement by Company or an Affiliate or Third Party sublicensee of Company of any action against Penn to declare or render invalid or unenforceable the Patent Rights or Exhibit D Patents or any claim thereof, including but not limited to an action for declaratory judgment (a "**Patent Challenge**").

6.5 Effect of Termination.

6.5.1 Effect of Termination Except under Section 6.2. Upon the termination of this Agreement prior to expiration of the Term for any reason except pursuant to Section 6.2: (a) the Sublicense to the Patent Rights and Exhibit D Patents will terminate; (b) Company and all its Affiliates will cease all making, having made, using, importing, offering for sale and selling of all Licensed Products with respect to Patent Rights and Exhibit D Patents under the Sublicense, except to the extent permitted by Section 6.5.1(f) and Section 6.6; (c) Company will pay to Cellscript all amounts, including accrued interest, owed to Cellscript under this Agreement through the date of termination, including royalties on Licensed Products invoiced or shipped through the date of termination and any sell off period permitted by Section 6.6, whether or not payment is received prior to termination or expiration of the sell off period permitted by Section 6.6; (d) Company will, at Cellscript's request, return to Cellscript all Confidential Information of Cellscript (if any) related to exploitation of Patent Rights and Exhibit D Patents and provide to Cellscript one summary of all work related thereto for Licensed Products generated by Company during the Term in order to facilitate the further development of the technology licensed under this Agreement; (e) in the case of termination under Section 6.3, all duties of Cellscript and all rights (but not duties) of Company under this Agreement immediately terminate without further action required by either Cellscript or Company; and (f) all outstanding Third Party sublicenses, to the extent each is not in default, will be assigned by Company to Cellscript, such assignment will be accepted by Cellscript, and each Third Party sublicense agreement will remain in full force and effect with Cellscript as the sublicensor instead of Company, but the duties and obligations of Cellscript under the assigned sublicense agreements will not be greater than the duties of Cellscript under this Agreement and the rights of Cellscript under the assigned sublicenses will not be less than those of Cellscript under this Agreement, including all financial consideration and other rights of Cellscript, and Cellscript may, at its sole discretion, amend such assigned agreements to contain terms and conditions found in this Agreement. [***]

6.5.2 Effect of Termination under Section 6.2. Upon the termination of this Agreement under Section 6.2: (a) the Sublicense to Company and all further sublicenses to Affiliates and Third Parties terminate (except to the extent that said Third Party sublicenses become direct sublicenses of Cellscript pursuant to Section 6.5.2(e)); (b) Company, its Affiliates and Third Party sublicensees will cease all making, having made, using, importing, offering for sale and selling all Licensed Products under the Sublicense, except to the extent permitted pursuant to Section 6.5.2(e) and Section 6.6; (c) Company will pay to Cellscript all amounts, including accrued interest, owed to Cellscript under this Agreement through the date of termination, including royalties on Licensed Products invoiced or shipped through the date of termination and any sell off period permitted by Section 6.6, whether or not payment is received prior to termination or expiration of the sell off period permitted by Section 6.6, and (d) Company will, at Cellscript's request, return to Cellscript all confidential information of Cellscript; and (e) all outstanding sublicenses of Company to Third Parties and all outstanding sublicenses of Company's Affiliates to Third Parties, to the extent each is not in default, will be assigned by Company or its Affiliates to Cellscript (and Company will contractually obligate its Affiliates to make or cause such assignments and work with Cellscript to effect such assignments), and each such assigned sublicense agreement will remain in full force and effect (including for sublicensed Exhibit A-1 Patent Rights and Exhibit A-2 Patent Rights and Exhibit D Patents) with Cellscript as the sublicensor instead of Company, but the duties and obligations of Cellscript under the assigned sublicense agreements will not be greater than the duties and obligations of Company under this Agreement, and the rights of Cellscript under the assigned sublicense agreements will not be less than the rights of Company under this Agreement, including all financial consideration and other rights of Company, and Cellscript may, at its sole discretion, amend such assigned sublicense agreements to contain financial or other terms and conditions found in this Agreement (excluding payment obligations which have already been satisfied by Company).

[*Remainder of page left blank*]

6.6 Inventory & Sell Off. Subject to the remainder of this Section 6.6, upon the termination of this Agreement for any reason, Company will: (1) cause physical inventories to be taken immediately of: (a) all completed Licensed Products on hand under the control of Company and its Affiliates and Third Party sublicensees and (b) such Licensed Products as are in the process of manufacture and any component parts on the date of termination of this Agreement; (2) deliver promptly to Cellscript a copy of said written inventory, certified by an officer of Company; (3) promptly remove, efface or destroy or require or cause to be removed, effaced or destroyed all references to Penn and Cellscript from any advertising, labels, web sites or other materials used in the promotion of the business of Company or its Affiliates or Third Party sublicensees; and (4) not represent in any manner that it has rights in or to the Patent Rights or Exhibit D Patents or the Licensed Products under this Sublicense and cause its Affiliates and Third Party sublicensees not to represent that they have any rights in or to the Patent Rights or Exhibit D Patents or the Licensed Products. Subject to this Section 6.6, Company and its Affiliates and Third Party sublicensees may sell off its inventory of Licensed Products existing on the date of termination for a period of [***] months and pay Cellscript royalties on Sales of such inventory within [***] days following the expiration of such [***] month period. Notwithstanding the foregoing: (i) Company's obligations under this Section 6.6 will not apply to the Sublicense or to Company's sublicense agreements if the Sublicense is assigned to mRNA RiboTherapeutics pursuant to Section 6.5.1; and (ii) the obligations of each of Company's sublicensees pursuant to this Section 6.6 will not apply to Company's or its Affiliates' or Third Party sublicensees' sublicense agreements that are assigned to Cellscript pursuant to Sections 6.5.1(f) or 6.5.2(e); and, (iii) Company's and its Affiliates' and Third Party sublicensees' obligations under this Section 6.6 will not apply with respect to any Licensed Product that is for use in a Field of Use for which Company (and its Affiliates or Third Party sublicensees) has a different sublicense agreement (e.g., under the mRNA RiboTherapeutics Sublicense Agreement).

6.7 Survival. Company's obligation to pay all amounts, including accrued interest, owed to Cellscript under this Agreement will survive the termination of this Agreement for any reason. Articles 5, 6, 11, 12 and 13 and Sections 4.1 (until all Licensed Products which have been manufactured during the Term have been Sold), 4.2, 4.3 (for the time period set forth therein for all Sales of Licensed Products which have been manufactured during the Term), 4.4 (for the time period set forth therein) and 4.5-4.7, 9.1.1, 9.1.4 (for all amounts paid by Company to Cellscript following termination that are payable to mRNA RiboTherapeutics), 9.2.2, 9.2.4 (for all amounts that are payable to Penn which are paid by Company and received by mRNA Therapeutics from Cellscript following termination), and 9.1.8, 9.2.7, 9.3.3, and 9.7 will survive the termination of this Agreement in accordance with their respective terms. The Parties acknowledge and agree that the Sublicense is, for the purposes of section 365(n) of the U.S. Bankruptcy Code, a license to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties intend that all payments under Article 3 of this Agreement constitute "royalties" within the meaning of section 365(n) of the U.S. Bankruptcy Code.

## 7 PATENT PROSECUTION AND MAINTENANCE

7.1 Patent Control for Patent Rights. Penn and mRNA RiboTherapeutics control the preparation, prosecution and maintenance of the Patent Rights and the selection of patent counsel, subject to the remainder of this Section 7.1. For purposes of this Section 7.1, the word "maintenance" includes any interference negotiations, claims, or proceedings, in any forum, brought by Penn, or its exclusive licensee, mRNA RiboTherapeutics (if so authorized by Penn), a Third Party, or the United States Patent and Trademark Office or any foreign equivalent pertaining to Patent Rights, and any requests by Penn or mRNA RiboTherapeutics (if so authorized by Penn)

that the United States Patent and Trademark Office or any foreign equivalent reexamine or reissue any patent in the Patent Rights. Notwithstanding the foregoing, Cellscript will provide Company and its counsel with reasonable opportunities to consult with Cellscript regarding prosecution and maintenance of Patent Rights.

7.2 Patent Control for Exhibit D Patents. Penn and Cellscript control the preparation, prosecution and maintenance of the Exhibit D Patents and the selection of patent counsel, subject to the remainder of this Section 7.2. For purposes of this Section 7.2, the word "maintenance" includes any interference negotiations, claims, or proceedings, in any forum, brought by Penn, or its exclusive licensee, Cellscript (if so authorized by Penn), a Third Party, or the United States Patent and Trademark Office pertaining to Exhibit D Patents, and any requests by Penn or Cellscript (if so authorized by Penn) that the United States Patent and Trademark Office reexamine or reissue any patent in the Exhibit D Patents. Notwithstanding the foregoing, Cellscript will provide Company and its counsel with reasonable opportunities to consult with Cellscript regarding prosecution and maintenance of Exhibit D Patents.

## 8 INFRINGEMENT

8.1 Control. Company shall not have any right to initiate litigation with respect to infringement of the Patent Rights or Exhibit D Patents.

8.2 Cooperation. In any litigation under this Article 8, each Party, at the reasonable request and sole expense of the other Party, will provide reasonable cooperation to such other Party. This Article 8 will not be construed to require either Party to undertake any activities, including legal discovery, at the request of any Third Party, except as may be required by lawful process of a court of competent jurisdiction.

## 9 COVENANTS, REPRESENTATIONS, WARRANTIES AND DISCLAIMER OF WARRANTIES

9.1 Covenants of Cellscript. Cellscript covenants to Company that, during the Term:

9.1.1 Cellscript will take all reasonable actions necessary to maintain Cellscript's rightsunder the Cellscript Sublicense Agreement and, to the extent within its power, will ensure that the rights granted to Company herein are maintained. In the event of termination of the Cellscript Sublicense Agreement, this Agreement will be assigned to mRNA RiboTherapeutics without any further action by the Parties, and the sublicenses granted hereunder, to the extent they are not in breach or default, will remain in full force and effect with respect to the sublicensed Exhibit A-1 Patent Rights, Exhibit A-2 Patent Rights.

9.1.2 Cellscript will use diligent efforts not to breach the Cellscript Sublicense Agreement in any manner that could result in mRNA RiboTherapeutics having the right to terminate the Cellscript Sublicense Agreement, and, in the event of any such breach, Cellscript will use diligent efforts to expeditiously cure Cellscript's breach of the Cellscript Sublicense Agreement.

9.1.3 Upon Cellscript learning of any breach of a sublicense agreement by any sublicensee of Cellscript or any of its further sublicensees in any manner that could result in mRNA RiboTherapeutics having the right to terminate the Cellscript Sublicense Agreement, Cellscript will expeditiously take appropriate actions to stop such act or omission, up to and including termination of the applicable sublicense, as stated in Section 1.5.4 of the Cellscript Sublicense Agreement.

9.1.4 Cellscript will make all payments due under the Cellscript Sublicense Agreement, and will make all required disclosures to mRNA RiboTherapeutics in connection therewith, in each case in a timely manner in accordance with the terms thereof.

9.1.5 Promptly following Cellscript's receipt of any material written notice or correspondence pertaining to the Sublicense that could reasonably be expected to adversely affect Company's rights under this Agreement, Cellscript will, to the extent permissible, furnish a copy of such notice or correspondence to Company, provided that Cellscript may redact portions of any such written notice or correspondence that does not relate to or impact Company's rights hereunder.

9.1.6 Cellscript acknowledges and agrees that, to the extent that Company reasonably and in good faith requests that the Parties engage with mRNA RiboTherapeutics to seek a reasonable amendment or modification to a provision of the Cellscript Sublicense Agreement that is applicable to Company, the Parties will engage with mRNA RiboTherapeutics to discuss such amendment or modification.

9.1.7 To the extent permissible, Cellscript will promptly notify Company if Cellscript receives a notice from mRNA RiboTherapeutics of intent to terminate the Penn License Agreement

9.1.8 Cellscript agrees that it will not sue, bring an action against, or otherwise assert any claim against Company or its Affiliates or Third Party sublicensees, or their successors in ownership (to which this Agreement or a sublicense under this Agreement is assigned according to terms and conditions for assignment pursuant to Section 15.5 or Section 1.5.5 herein) for infringement of or misappropriation of Patent Rights or Exhibit D Patents that are used by Company or its Affiliates or Third Party sublicensees or their successors in ownership solely in and for the Sublicensed Fields of Use under this Agreement, as Fields of Use are defined in Section 1.2, or the fields of use sublicensed to Company under the mRNA RiboTherapeutics Sublicense Agreement. **[***]** This covenant shall terminate with the termination of this Agreement unless the termination is: (a) made under Section 6.3, and (b) within **[***]** days following receipt of notice by Cellscript of termination under Section 6.3, is either: (i) resolved by Company and Cellscript in writing, or (ii) Company initiates a state or federal lawsuit contesting said termination ("**Contested Termination**"). In the event of a Contested Termination, this covenant shall continue to run during the **[***]** days, and if a lawsuit is initiated, until said state or federal court enters a final decision from which no appeal has been or can be taken.

9.1.9 Cellscript will not amend the Cellscript Sublicense Agreement in any manner that would negatively affect the rights and/or obligations of the Company under this Agreement.

9.1.10 Cellscript will not exercise any right to terminate the Cellscript Sublicense Agreement.

9.2 Covenants of mRNA RiboTherapeutics. mRNA RiboTherapeutics covenants to Company as follows:

9.2.1 mRNA RiboTherapeutics will not terminate the Cellscript Sublicense Agreement without good and reasonable cause.

9.2.2 In the event of termination of the Cellscript Sublicense Agreement, provided that Company did not cause said termination of the Cellscript Sublicense Agreement and is not in breach or default under this Agreement, this Agreement will be assigned to mRNA RiboTherapeutics without any further action by Cellscript, mRNA RiboTherapeutics will accept

assignment of this Agreement from Cellscript and this Agreement, including all of Company's outstanding Third Party sublicenses thereunder, will remain in full force and effect with respect to the sublicensed Exhibit A-1 Patent Rights and Exhibit A-2 Patent Rights, with mRNA RiboTherapeutics as the sublicensor instead of Cellscript, but the duties and obligations of mRNA RiboTherapeutics under the assigned Agreement will not be greater than the duties of Cellscript under this Agreement and the rights (including all financial consideration and other rights) of mRNA RiboTherapeutics under the assigned Sublicense will not be less than those of Cellscript under this Agreement, and mRNA RiboTherapeutics may, at its sole discretion, amend such assigned agreements to contain terms and conditions found in the Cellscript Sublicense Agreement; and Cellscript shall grant a separate sublicense to Company to use the Exhibit D Patents in the Sublicensed Fields of Use.

9.2.3 Upon mRNA RiboTherapeutics learning of any breach of a sublicense agreement by any sublicensee or any further sublicensees thereof in any manner that could result in mRNA RiboTherapeutics having the right to terminate the Cellscript Sublicense Agreement or Penn having the right to terminate the Penn License Agreement, mRNA RiboTherapeutics will expeditiously take appropriate actions to stop such act or omission, up to and including termination of the applicable sublicense.

9.2.4 mRNA RiboTherapeutics will make all payments due under the Penn License Agreement and will make all required disclosures to Penn in connection therewith, in each case in a timely manner in accordance with the terms thereof.

9.2.5 Promptly following mRNA RiboTherapeutics' or any of its affiliates' receipt of any material written notice or correspondence pertaining to the Company's sublicense agreement from Cellscript that would reasonably be expected to adversely affect Company's rights thereunder, mRNA RiboTherapeutics will, to the extent permissible, furnish a copy of such notice or correspondence to Cellscript and to Company, provided that mRNA RiboTherapeutics, as applicable, may redact portions of any such notice or correspondence that do not relate to or impact Company's rights.

9.2.6 mRNA RiboTherapeutics will promptly notify Cellscript and Company if it receives a notice from Penn of any intent to terminate the Penn License Agreement.

9.2.7 mRNA RiboTherapeutics agrees that mRNA RiboTherapeutics and its affiliates will not sue, bring an action against, or otherwise assert any claim against Company or its Affiliates or Third Party sublicensees or their successors in ownership (to which this Agreement or a sublicense under this Agreement is assigned according to terms and conditions for assignment pursuant to Section 15.5 or Section 1.5.5 herein) for infringement of or misappropriation of any Patent Rights (as defined in Section 1.2) that are used by Company or its Affiliates or Third Party sublicensees or their successors in ownership in the *In Vivo* Field of Use (as defined in Section 1.2) within the Sublicensed Fields of Use. For clarity, the foregoing covenant does not provide Company or its Affiliates or Third Party sublicensees or their successors in ownership immunity from any suit, action or claim for infringement of or misappropriation of Patent Rights if Company or its Affiliates or Third Party sublicensees or their successors in ownership use(s) any Patent Rights in a Field of Use that is not sublicensed to Company. For further clarity, the foregoing covenant also does not provide Company or its Affiliates or Third Party sublicensees or their successors in ownership immunity from any suit, action or claim for infringement of or misappropriation of any patent rights that are not Patent Rights (as defined in Section 1.2) if Company or its Affiliates or Third Party sublicensees or their successors in ownership use(s) any

such other patent rights, whether alone or in combination with use of Patent Rights. This covenant shall terminate with the termination of this Agreement unless the termination is a Contested Termination. In the event of a Contested Termination, this covenant shall continue to run during the **[***]** days, and if a lawsuit is initiated, until said state or federal court enters a final decision from which no appeal has been or can be taken.

9.2.8 mRNA RiboTherapeutics will not amend the Cellscript Sublicense Agreement in any manner that would negatively affect the rights and/or obligations of the Company under this Agreement.

9.3 Covenants of Company. Company covenants to Cellscript and to mRNA RiboTherapeutics that, during the Term:

9.3.1 Company will not breach this Agreement, and to the extent within its power, will ensure that its Affiliates do not breach or cause breach of any sublicense under this Agreement in a manner that would result in mRNA RiboTherapeutics having the right to terminate the Cellscript Sublicense Agreement, and, in the event of any such breach, Company will use diligent efforts to cure (or cause to be cured) any such breach of this Agreement by Company or any breach of any sublicense under this Agreement by its Affiliates or Third Party sublicensees.

9.3.2 Upon Company learning of any breach of a sublicense agreement by any of its Affiliates or Third Party sublicensees or any of their further sublicensees that results in mRNA RiboTherapeutics having the right to terminate the Cellscript Sublicense Agreement, Company will use diligent efforts to cure (or cause to be cured) any such breach, up to and including termination or causing termination of the applicable sublicense, as stated in Section 1.5.4 of this Agreement.

9.3.3 Company will pay to Cellscript all payments due under this Agreement pursuant to Article 3 and in accordance with the terms in Articles 3 and Section 4.2 and will provide to Cellscript all information, reports and notices required in accordance with Sections 2.1, 2.3, 3.3, 3.4.3(a), 4.1, 4.4, 4.5 and 6.6 and in the form of the sample report attached as Exhibit C, in each case in accordance with the time periods set forth therein.

9.3.4 Promptly following mRNA RiboTherapeutics' or any of its affiliates' receipt of any material written notice or correspondence about an issue pertaining to the Sublicense or to any matter that would reasonably be expected to adversely affect in any respect Company's rights under this Agreement, mRNA RiboTherapeutics will, to the extent permissible, furnish a copy of such notice or correspondence to Company, provided that mRNA RiboTherapeutics may redact portions of any such notice or correspondence that do not relate to or impact Company's rights hereunder.

9.4 Representations and Warranties of Cellscript. As of the Effective Date, Cellscript, on behalf of itself and its affiliates, hereby represents and warrants to Company that:

9.4.1 (a) Cellscript has provided Company a true and correct redacted copy of the Cellscript Sublicense Agreement (including exhibits and amendments thereto), which has been redacted with respect to amounts paid or payable by Cellscript to mRNA RiboTherapeutics for said sublicense and for milestones and other fees and royalties for Fields of Use not sublicensed to Company (e.g., the *Ex Vivo* Field of Use) and certain other terms and conditions that do not pertain to or are immaterial to Company's rights herein, and (b) except for a separate license agreement from Penn to CELLSCRIPT, LLC related to certain patents pertaining to

reprogramming to iPS cells (which are the Exhibit D Patents sublicensed to Company solely for the *In Vivo* Field of Use in Section 1.7 of this Agreement), there are no other license or sublicense agreements, written or verbal, between Penn and Cellscript or between Cellscript or any affiliate thereof and mRNA RiboTherapeutics or any affiliate thereof.

9.4.2 Neither mRNA RiboTherapeutics nor Cellscript, nor any affiliate thereof has granted any other license or sublicense in Field of Use B or given any covenant not to sue for infringement of Patent Rights relating to the Penn License Agreement except for: (i) the Cellscript Sublicense Agreement, (ii) this Agreement, (iii) the mRNA RiboTherapeutics Sublicense Agreement, (iv) one Human *In Vivo* Therapeutics Field Sublicense from Cellscript (if any) that will be granted to a Third Party pursuant to Article 10 of this Agreement with respect to the Human *In Vivo* Therapeutics Field, and (v) one sublicense (if any) from mRNA RiboTherapeutics to said Third Party for the Diagnostic and Prognostic Field of Use.

9.4.3 Cellscript has not granted any liens or encumbrances in or to its rights in Patent Rights or the Cellscript Sublicense Agreement.

9.4.4 Cellscript has not breached or defaulted under any provision of the Cellscript Sublicense Agreement in any material respect or received any written notice from mRNA RiboTherapeutics of any claims for indemnification pursuant thereto.

9.4.5 To the knowledge of Cellscript, (a) there are no facts that would preclude Penn from having clear title to the Patent Rights or Exhibit D Patents, (b) there are no pending or threatened litigations, interferences, reexaminations, oppositions or like procedures involving Patent Rights or Exhibit D Patents, and (c) all of the issued patents within the Patent Rights or Exhibit D Patents are valid and enforceable, are in full force and effect and have not lapsed, expired or otherwise terminated.

9.4.6 Cellscript believes the terms and conditions of this Agreement are fully consistent with the terms and conditions of the Cellscript Sublicense Agreement and the Penn License Agreement.

9.4.7 Cellscript has not received any written notice of any claim by any person or entity challenging the sublicense rights of Cellscript or the validity or enforceability of the Patent Rights or Exhibit D Patents.

[*Remainder of page left blank*]

9.4.8 The Fields of Use sublicensed to Company in this Agreement are different and distinct from and do not overlap with the fields of use sublicensed to Company by mRNA RiboTherapeutics in the mRNA RiboTherapeutics Sublicense Agreement and any products researched, developed, manufactured or commercialized in fields of use granted under this Agreement are subject only to the payment and other obligations under this Agreement, and are not subject to payment and other obligations under the mRNA RiboTherapeutics Sublicense Agreement.

9.4.9 Cellscript believes that the representations and warranties of Cellscript in this Agreement, do not, taken as a whole: (i) contain any untrue statement of a material fact; or (ii) omit to state any material fact necessary to make the statements or facts contained therein, in light of the circumstances under which they were made, not misleading. Cellscript has not knowingly withheld any information with respect to the Cellscript Sublicense Agreement, the Penn License Agreement or the Patent Rights or Exhibit D Patents that would reasonably be expected to be material to Company's decision to enter into this Agreement.

9.5 Representations and Warranties of mRNA RiboTherapeutics. As of the Effective Date, mRNA RiboTherapeutics hereby represents and warrants to Company that:

9.5.1 Either mRNA RiboTherapeutics or Cellscript has provided Company with a true and correct redacted copy of the Penn License Agreement (including exhibits and amendments thereto) which has been redacted with respect to the amounts paid or payable to Penn by licensee for said license and for milestones and other fees and royalties for Fields of Use which are not sublicensed to Company herein (e.g., the *Ex Vivo* Field of Use) and certain other terms and conditions that do not pertain to or are immaterial to Company's rights in the Sublicensed Fields of Use or the fields of use sublicensed to Company under the mRNA RiboTherapeutics Sublicense Agreement, and a paragraph describing Penn's retained right to grant a non-exclusive sublicense to one party for ten products for humans in the Infectious Disease Vaccine Subfield of Field of Use B.

9.5.2 Except for a separate license agreement from Penn to Cellscript related to certain patents and patent applications pertaining to reprogramming to iPS cells that are not part of Patent Rights herein (which are the Exhibit D Patents which are sublicensed to Company as stated in Section 1.7 of this Agreement), and the Cellscript Sublicense Agreement, there is no other outstanding license or sublicense agreement in Field of Use B pertaining to Patent Rights nor any covenant, written or verbal, not to sue for infringement of Patent Rights pertaining to Field of Use B between: (i) Penn and mRNA RiboTherapeutics or any affiliate thereof; or (ii) Penn and Cellscript or any affiliate thereof; or (iii) mRNA RiboTherapeutics or any affiliate thereof and Cellscript or any affiliate thereof.

9.5.3 Neither mRNA RiboTherapeutics nor any affiliate thereof has granted any other license or sublicense or agreed not to sue for infringement of Patent Rights in Field of Use B relating to the Penn License Agreement, except for: (i) the Cellscript Sublicense Agreement; (ii) this Agreement to Company, (iii) the mRNA RiboTherapeutics Sublicense Agreement to Company, (iv) one Human *In Vivo* Therapeutics Field Sublicense from Cellscript (if any) that will be granted to a Third Party pursuant to Article 10 of this Agreement with respect to the Human *In Vivo* Therapeutics Field, and (v) one sublicense (if any) from mRNA RiboTherapeutics to said Third Party for the Diagnostic and Prognostic Field of Use.

9.5.4 Neither mRNA RiboTherapeutics nor any affiliate thereof has granted any liens or encumbrances in or to its rights in Patent Rights or the Cellscript Sublicense Agreement.

9.5.5 Cellscript has not breached or defaulted under any provision of the Cellscript Sublicense Agreement in any material respect or received any written notice from mRNA RiboTherapeutics of any claims for indemnification pursuant thereto and mRNA RiboTherapeutics has not breached or defaulted under any provision of the Penn License Agreement in any material respect or received any written notice from Penn of any claims for indemnification pursuant thereto.

9.5.6 To the knowledge of mRNA RiboTherapeutics, (a) there are no facts that would preclude Penn from having clear title to the Patent Rights, (b) there are no pending or threatened litigations, interferences, reexaminations, oppositions or like procedures involving any such Patent Rights and (c) all of the issued patents within the Patent Rights are valid and enforceable, are in full force and effect and have not lapsed, expired or otherwise terminated.

9.5.7 mRNA RiboTherapeutics believes the terms and conditions of this Agreement are fully consistent with the terms and conditions of the Cellscript Sublicense Agreement and the Penn License Agreement.

9.5.8 mRNA RiboTherapeutics has not received, any written notice of any claim by any person or entity challenging the sublicense rights of Cellscript or the validity or enforceability of the Patent Rights.

9.5.9 The fields of use sublicensed to Company in the mRNA RiboTherapeutics Sublicense Agreement are distinct from and do not overlap with the Fields of Use sublicensed to Company in this Agreement and any products researched, developed, manufactured or commercialized in fields of use granted under the mRNA RiboTherapeutics Sublicense Agreement are subject only to the payment and other obligations of the mRNA RiboTherapeutics Sublicense Agreement, and are not subject to payment and other obligations under this Agreement.

9.5.10 mRNA RiboTherapeutics believes that the representations and warranties of mRNA RiboTherapeutics in this Agreement, do not, taken as a whole, (i) contain any untrue statement of a material fact; or (ii) omit to state any material fact necessary to make the statements or facts contained therein, in light of the circumstances under which they were made, not misleading. mRNA RiboTherapeutics has not knowingly withheld any information with respect to the Cellscript Sublicense Agreement, the Penn License Agreement or the Patent Rights that would reasonably be expected to be material to Company's decision to enter into this Agreement.

9.6 Representations and Warranties of Company. Company hereby represents and warrants to Cellscript and to mRNA RiboTherapeutics that, as of the Effective Date:

9.6.1 Company is duly organized and validly existing under the laws of the jurisdiction of its incorporation and has full corporate power and authority to enter into this Agreement.

9.6.2 Company is in good standing with all relevant governmental authorities.

9.6.3 Company has taken all corporate actions necessary to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement.

9.6.4 The performance of the obligations of Company under this Agreement do not conflict with or constitute a default under its charter documents, any contractual obligation of Company or any court order.

9.6.5 Company and its attorneys have reviewed the patents and patent applications comprising Patent Rights including both Exhibit A-1 Patent Rights and Exhibit A-2 Patent Rights that are listed in Exhibit A attached hereto.

9.6.6 Company has experience with and is familiar with the inventions covered by Patent Rights and understands the use, purpose and benefits thereof.

9.6.7 Company has read the redacted copy of the Penn License Agreement (including exhibits and amendments thereto) that was provided to Company by mRNA RiboTherapeutics or Cellscript.

9.6.8 Company has read the redacted copy of the Cellscript Sublicense Agreement (including exhibits and amendments thereto) that was provided to Company by Cellscript or mRNA RiboTherapeutics.

9.6.9 Company believes that the representations and warranties of Company in this Agreement, do not, taken as a whole, (i) contain any untrue statement of a material fact; or (ii) omit to state any material fact necessary to make the statements or facts contained therein, in light of the circumstances under which they were made, not misleading. Company has not knowingly withheld any information with respect to the any of Company's above statements that would reasonably be expected to be material to Cellscript's decision to enter into this Agreement.

9.7 Disclaimer of Warranties. EXCEPT AS SPECIFICALLY SET FORTH IN THIS ARTICLE 9, NO PARTY MAKES ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OR SUFFICIENCY OF PATENT RIGHTS OR EXHIBIT D PATENTS FOR A PARTICULAR PURPOSE, APPLICATION OR USE, NON-INFRINGEMENT, OR ANY OTHER STATUTORY WARRANTY.

## 10 ADDITIONAL TERMS REGARDING SUBLICENSING

10.1 Purpose of this Article. This Article 10 sets forth terms and conditions for further sublicensing by Primary Sublicensors in the Human *In Vivo* Therapeutics Field, wherein, for the purposes of this Article 10:

(a) "**sublicensing**" herein means any grant of a sublicense, covenant not to sue, or option for current or future rights under Patent Rights, and the noun "**sublicense**" herein means a document that grants such sublicense, covenant not to sue, or option for current or future rights under Patent Rights;

(b) "**Primary Sublicensors**" herein means (i) mRNA RiboTherapeutics, (ii) Cellscript, and (iii) any affiliate of (i) or (ii) that is granted a sublicense in the Human *In Vivo* Therapeutics Field; and

(c) "**Human *In Vivo* Therapeutics Field**" herein means any or all therapeutic and prophylactic use(s) in humans in the *In Vivo* Field of Use in Field of Use B.

For clarity and the absence of doubt, Article 10 shall not be interpreted in any way so as to limit, restrict or impose any terms or conditions on Primary Sublicensors' rights to grant sublicenses under Patent Rights to any party at any time for any Field of Use other than the Human *In Vivo* Therapeutics Field.

10.2 Human *In Vivo* Therapeutics Field Sublicenses. Subject to the rights of the Primary Sublicensors and their respective owners under Section 10.4, Cellscript, mRNA RiboTherapeutics and Company agree that, from the Effective Date **[***]**, mRNA RiboTherapeutics and Cellscript will not grant and will ensure that other Primary Sublicensors will not grant Human *In Vivo* Therapeutics Field Sublicenses, including this Sublicense, to **[***]**

"**Human *In Vivo* Therapeutics Field Sublicense**" means a sublicense to make, have made, use, import, offer for sale, sell and/or have sold any number of products covered by Patent Rights comprising or incorporating modified RNA for the Human *In Vivo* Therapeutics Field, but excluding Product Sublicenses.

10.3 Product Sublicenses. Subject to the rights of the Primary Sublicensors and their respective owners under Section 10.4, Cellscript, mRNA RiboTherapeutics and Company agree that, from the Effective Date until **[***]**, Cellscript and mRNA RiboTherapeutics will (and will ensure that the other Primary Sublicensors will):

(a) grant Product Sublicenses only to **[***]**,

wherein "**Product Sublicenses**" herein mean sublicenses under Patent Rights to research, develop, manufacture and/or commercialize specific products **[***]**, for a therapeutic or prophylactic use in humans in the *In Vivo* Field of Use, and

wherein **[***]**

(b) only grant Product Sublicenses for a total of **[***]** products in the aggregate by all of the Primary Sublicensors across all such Product Sublicenses, **[***]**

(c) except as set forth in Sections 10.2 and 10.3, not otherwise grant sublicenses under the Patent Rights to research, develop, manufacture and/or commercialize products comprising or incorporating **[***]**.

10.4 Sale of a Primary Sublicensor. Company understands and agrees that the owners of each of mRNA RiboTherapeutics and Cellscript shall have the right to sell all or any part of the outstanding stock or ownership interest or the business or the assets thereof, as applicable, of mRNA RiboTherapeutics and/or Cellscript and/or any of their respective affiliates that **[***]** at any time and without any conditions pursuant to this Agreement other than the requirements under Section 15.5,

except that, as a condition to any such sale occurring prior to April 1, 2020:

(a) the owners of each of mRNA RiboTherapeutics and Cellscript will sell mRNA RiboTherapeutics or Cellscript to only one (1) Third Party purchaser, **[***]**; and

(b) without in any way negating or ceding or giving up any of their current rights to sell all or any part of the stock, ownership interest, business or assets of mRNA RiboTherapeutics and/or Cellscript or to discuss any such sale with any potential purchaser at any time, including from the Effective Date of this Agreement until **[***]**, the owners of mRNA RiboTherapeutics and Cellscript agree not to conduct Active Marketing of such sale of a Primary Sublicensor prior to **[***]**,

wherein "**[***]**" herein means **[***]**; and

for the avoidance of doubt, Company agrees that this Section 10.4(a) shall not be interpreted so as to prohibit the owners of mRNA RiboTherapeutics and/or Cellscript from proposing or discussing **[***]**;

(c) the purchaser of mRNA RiboTherapeutics or Cellscript, respectively, will pay **[***]**;

(d) on the effective date of any such sale of **[***]** and the purchaser and their assignees and successors in ownership thereof shall have all the same rights as are held by Company under this Agreement to:

(i) grant Human *In Vivo* Therapeutics Field Sublicenses to affiliates and Third Parties without being subject to any restrictions, limitations, or terms and conditions that apply to the Primary Sublicensors under Sections 10.2, and

(ii) grant Product Sublicenses to affiliates and any Third Parties to research, develop, manufacture and/or commercialize any number of products comprising modified RNA covered by Patent Rights for any therapeutic or prophylactic use in humans in the *In Vivo* Field of Use without being subject to any of the restrictions, limitations or requirements that the sublicensee is a Small Biotech Company as is required of the Primary Sublicensors in Section 10.3; and

(e) on the effective date of any such sale of more than fifty percent (50%) of the outstanding stock or ownership interest or all of the business or assets of mRNA RiboTherapeutics or Cellscript, all of the rights of the Primary Sublicensors to grant Product Sublicenses pursuant to Section 10.3 shall remain only with the Primary Sublicensors for which their stock, ownership interest, business and assets were not sold.

**[***]**

10.5 From **[***]**, Primary Sublicensors and any owners, assignees or successors in ownership thereof shall have the right to grant any number of Human *In Vivo* Therapeutics Field Sublicense(s) to any parties without any conditions (other than those imposed by the Penn License Agreement or the Cellscript Sublicense Agreement) and to grant any number of Product Sublicenses or any other sublicenses of any kind under Patent Rights to any parties without any limitations or restrictions or requirements whatsoever under this Article 10.

## 11 LIMITATION OF LIABILITY; DISCLAIMER.

11.1 Limitation of Liability. CELLSCRIPT, mRNA RIBOTHERAPEUTICS AND PENN WILL NOT BE LIABLE TO COMPANY, ITS AFFILIATES, SUBLICENSEES, SUCCESSORS OR ASSIGNS, OR ANY THIRD PARTY WITH RESPECT TO ANY CLAIM: ARISING FROM COMPANY'S USE OF THE PATENT RIGHTS, EXHIBIT D PATENTS, LICENSED PRODUCTS OR ANY OTHER TECHNOLOGY LICENSED UNDER THIS AGREEMENT; OR ARISING FROM THE COMPANY'S, COMPANY'S AFFILIATES' OR COMPANY'S SUBLICENSEES' DEVELOPMENT, TESTING, MANUFACTURE, USE OR SALE OF LICENSED PRODUCTS. NOTWITHSTANDING ANYTHING IN THIS

AGREEMENT OR OTHERWISE, NONE OF CELLSCRIPT, mRNA RIBOTHERAPEUTICS, PENN, OR COMPANY WILL BE LIABLE TO THE OTHER OR ANY THIRD PARTY WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT FOR ANY INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SUCH PARTY HAS BEEN INFORMED OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES; PROVIDED THAT THIS SECTION 11.1 WILL NOT APPLY: (a) TO A PARTY'S INDEMNIFICATION RIGHTS AND OBLIGATIONS UNDER ARTICLE 12 OR ARTICLE 13; (b) IN CIRCUMSTANCES OF GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT BY A PARTY OR ITS AFFILIATES; OR (c) WITH RESPECT TO A PARTY'S LIABILITY FOR BREACH OF ARTICLE 5 or 10.

11.2 Disclaimer. THE PATENT RIGHTS, EXHIBIT D PATENTS, LICENSED PRODUCTS AND ANY OTHER TECHNOLOGY LICENSED UNDER THIS AGREEMENT ARE PROVIDED ON AN "AS IS" BASIS. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NONE OF CELLSCRIPT, mRNA RIBOTHERAPEUTICS, PENN, OR COMPANY MAKE ANY REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF ACCURACY, COMPLETENESS, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COMMERCIAL UTILITY, NON-INFRINGEMENT, VALIDITY OR TITLE.

## 12 PENN INDEMNIFICATION

12.1 Indemnification. Company will defend, indemnify, and hold harmless each Penn Indemnified Party from and against any and all Penn Liabilities with respect to an Indemnification Event. The term "**Penn Indemnified Party**" means each of Penn and its trustees, officers, faculty, students, employees, contractors, and agents. For clarity, Cellscript is not a Penn Indemnified Party. The term "Penn Liabilities" means all damages, awards, deficiencies, settlement amounts, defaults, assessments, fines, dues, penalties, costs, fees, liabilities, obligations, taxes, liens, losses, lost profits and expenses (including, but not limited to, court costs, interest and reasonable fees of attorneys, accountants and other experts) that are incurred by a Penn Indemnified Party or awarded or otherwise required to be paid to Third Parties by a Penn Indemnified Party. The term "Indemnification Event" means any Claim against one or more Penn Indemnified Parties arising out of or resulting from: **[***]**. The term *"***Claim***"* in this Article 12 means any charges, complaints, actions, suits, proceedings, hearings, investigations, claims or demands.

12.2 Reimbursement of Costs. Company will pay directly all Penn Liabilities incurred for defense or negotiation of any Claim or will reimburse Penn for all documented Penn Liabilities incident to the defense or negotiation of any Claim within **[***]** days after Company's receipt of invoices for such fees, expenses and charges.

12.3 Control of Litigation. Company controls any litigation or potential litigation involving the defense of any Claim, including the selection of counsel, with input from Penn. Penn reserves the right to protect its interest in defending against any Claim by selecting its own counsel, with any attorneys' fees and litigation expenses paid for by Company, pursuant to Sections 12.1 and 12.2.

12.4 Other Provisions. Company will not settle or compromise any Claim giving rise to Penn Liabilities in any manner that imposes any restrictions or obligations on Penn or grants any rights to the Patent Rights, Exhibit D Patents or the Licensed Products without Penn's prior written consent. If Company fails or declines to assume the defense of any Claim within **[***]** days after notice of the Claim, or fails to reimburse a Penn Indemnified Party for any Penn Liabilities pursuant to Sections 12.1 and 12.2 within the **[***]** day time period set forth in Section 12.2, then Penn may assume the defense of such Claim for the account and at the risk of Company, and any Penn Liabilities related to such Claim will be conclusively deemed a liability of Company. The indemnification rights of the Penn Indemnified Parties under this Article 12 are in addition to all other rights that a Penn Indemnified Party may have at law, in equity or otherwise.

## 13 OTHER INDEMNIFICATION

13.1 Indemnification by Company. Company will indemnify, defend and hold harmless Cellscript and its affiliates, and its or their respective directors, officers, employees and agents ("**Cellscript Indemnified Parties**"), from and against any and all liabilities, damages, losses, costs and expenses including the reasonable fees of attorneys (collectively "**Losses**") arising out of or resulting from any and all Third Party suits, claims, actions, proceedings, payment obligations or demands ("**Claims**" in this Article 13) to the extent based upon:

13.1.1 the gross negligence or willful misconduct of Company, its Affiliates or Third Party sublicensees and its or their respective directors, officers, employees and agents, in connection with Company's performance of its obligations or exercise of its rights under this Agreement;

13.1.2 any breach of any representation or warranty or express covenant made by Company under this Agreement; or

13.1.3 the development, testing, use, manufacture, commercialization, sale or other disposition of Licensed Products by or on behalf of Company or its Affiliates or Third Party sublicensees, assignees or vendors or Third Parties, including, but not limited to, for (x) any product liability or other Claim of any kind related to use by a Third Party of a Licensed Product, (y) any Claim by a Third Party that Company's practice of any of the Patent Rights or Exhibit D Patents or the design, composition, manufacture, use, sale or other disposition of any Licensed Product infringes or violates any patent, copyright, trade secret, trademark or other intellectual property right of such Third Party, and (z) any Claim by a Third Party relating to clinical trials or studies for Licensed Products;

except, in each case above, to the extent such Claim arose out of or resulted from or is attributable to any acts or omissions of Cellscript or its directors, officers, employees and agents, or other circumstances for which Cellscript has an indemnity obligation pursuant to Section 13.2 below.

13.2 Indemnification by Cellscript. Cellscript will indemnify, defend and hold harmless Company and its Affiliates, and its or their respective directors, officers, employees and agents ("**Company Indemnified Parties**"), from and against any and all Losses arising out of or resulting from any and all Claims to the extent based upon:

13.2.1 the gross negligence or willful misconduct of Cellscript or its directors, officers, employees and agents, in connection with Cellscript's performance of its obligations or exercise of its rights under this Agreement; or

13.2.2 any breach of any representation or warranty or express covenant made by Cellscript under this Agreement; or

except, in each case above, to the extent such Claim arose out of or resulted from or is attributable to any acts or omissions of Company or its Affiliates or Third Party sublicensees or contractors and its or their respective directors, officers, employees and agents or other circumstances for which Company has an indemnity obligation pursuant to Section 13.1 above.

13.3 Procedure. If an Indemnified Party entitled to indemnification under Sections 13.1 or 13.2 seeks such indemnification (wherein "**Indemnified Party**" in this Article 13 means a "Company Indemnified Party" and/or an "Cellscript Indemnified Party"), such Indemnified Party will:

(i) inform the indemnifying Party in writing of a Claim as soon as reasonably practicable after such Indemnified Party receives notice of such Claim;

(ii) permit the indemnifying Party to assume direction and control of the defense of the Claim (including the sole right to settle such Claim at the sole discretion of the indemnifying Party, *provided that* (a) such settlement or compromise does not admit any fault or negligence on the part of the Indemnified Party, or impose any obligation on, or otherwise materially adversely affect, the Indemnified Party or other Party and (b) the indemnifying Party first obtains the written consent of the Indemnified Party with respect to such settlement, which consent will not be unreasonably withheld);

(iii) cooperate as reasonably requested (at the expense of the indemnifying Party) in the defense of the Claim; and

(iv) undertake reasonable steps to mitigate any Losses with respect to the Claim.

Notwithstanding anything in this Agreement to the contrary, the indemnifying Party will have no liability under Sections 13.1 or 13.2, as the case may be, for Claims settled or compromised by the Indemnified Party without the indemnifying Party's prior written consent.

## 14 INSURANCE

14.1 Coverages. Company will procure and maintain insurance or self-insurance that covers the following minimum liability amounts with respect to personal injury, bodily injury and property damage arising out of Company's performance under this Agreement: (a) during the Term, comprehensive general liability, including broad form and contractual liability, in a minimum amount of **[***]** combined single limit per occurrence and in the aggregate; (b) prior to the commencement of clinical trials involving Licensed Products, clinical trials a minimum amount of **[***]** combined single limit per occurrence and in the aggregate; and (c) prior to the Sale of the first Licensed Product, product liability a minimum amount of **[***]** combined single limit per occurrence and in the aggregate. Penn and Cellscript may review periodically the adequacy of the minimum amounts of insurance or self-insurance for each liability coverage area required by this Section 14.1, and Penn and Cellscript reserve the right to request Company to adjust the limits accordingly to the extent existing limits are not commercially reasonable. The required minimum amounts of insurance or self-insurance do not constitute a limitation on Company's liability or indemnification obligations to Penn or Cellscript under this Agreement.

## 15 ADDITIONAL PROVISIONS

15.1 Independent Contractors. The Parties are independent contractors. Nothing contained in this Agreement is intended to create an agency, partnership or joint venture between the Parties. At no time will either Party make commitments or incur any charges or expenses for or on behalf of the other Party.

15.2 No Discrimination. Company will not discriminate against any employee or applicant for employment because of race, color, sex, sexual or affectional preference, age, religion, national or ethnic origin, handicap, or veteran status.

15.3 Compliance with Laws. Company must comply with all prevailing laws, rules and regulations that apply to its activities or obligations under this Agreement. For example, Company will comply with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the applicable agency of the United States government and/or written assurances by Company that Company will not export data or commodities to certain foreign countries without prior approval of the agency. Penn and Cellscript do not represent that no license is required, or that, if required, the license will issue.

15.4 Modification, Waiver & Remedies. This Agreement may only be modified by a written amendment that is executed by an authorized representative of each Party. Any waiver must be express and in writing. No waiver by either Party of a breach by the other Party will constitute a waiver of any different or succeeding breach. Unless otherwise specified, all remedies are cumulative.

[*Remainder of page left blank*]

15.5 Assignment. This Agreement may not be assigned (by operation of law or otherwise) by either Party without the prior written consent of the other Party (which consent will not be unreasonably withheld); *except that*, either Party may assign this Agreement without such consent to an affiliate or to a Third Party successor that purchases greater than fifty percent (>50%) of the outstanding stock or ownership interest or all or substantially all of such Party's business or assets to which this Agreement relates, whether by sale of shares or ownership interest, merger, consolidation, sale of assets or otherwise, *provided* that, prior to said transfer, the intended assignee agrees in writing to be legally bound by this Agreement in the place and stead of the assignor and provides the non-assigning Party with a copy of said assignee's written undertaking. Neither Party will grant a security interest in the Sublicense or this Agreement during the Term. Any prohibited assignment or security interest in contravention of the foregoing will be null and void. The rights and obligations of the Parties under this Agreement will be binding upon and inure to the benefit of the successors and permitted assigns of the Parties, and the name of a Party appearing herein will be deemed to include the name of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Section 15.5.

15.6 Notices. Any notice or other required communication (each, a "**Notice**") must be in writing, addressed to the Party's respective Notice Address listed on the signature page, and delivered: (a) personally, with signed receipt; (b) by certified mail, postage prepaid, return receipt requested; (c) by recognized overnight courier service, charges prepaid; or (d) by facsimile. A Notice will be deemed received: if delivered personally, on the date of delivery; if mailed, **[***]** days after deposit in the United States mail; if sent via courier, **[***]** business day after deposit with the courier service; or if sent via facsimile, upon receipt of confirmation of transmission provided that a confirming copy of such Notice is sent by certified mail, postage prepaid, return receipt requested.

15.7 Severability & Reformation. If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then the remaining provisions of this Agreement will remain in full force and effect. Such invalid or unenforceable provision will be automatically revised to be a valid or enforceable provision that comes as close as permitted by law to the Parties' original intent.

15.8 Headings & Counterparts. The headings of the articles and sections included in this Agreement are inserted for convenience only and are not intended to affect the meaning or interpretation of this Agreement. This Agreement may be executed in one or more counterparts, each of which when executed and delivered by facsimile, electronic transmission, or by mail delivery, will be an original and all of which shall constitute one and the same instrument.

15.9 Governing Law. This Agreement will be governed in accordance with the laws of the Commonwealth of Pennsylvania, without giving effect to the conflict of law provisions of any jurisdiction.

15.10 Dispute Resolution. If a dispute arises between the Parties concerning any right or duty under this Agreement, then the Parties will confer, as soon as practicable, in an attempt to resolve the dispute. If the Parties are unable to resolve the dispute amicably, then the Parties will submit to the exclusive jurisdiction of, and venue in, the state and Federal courts located in the Eastern District of Pennsylvania with respect to all disputes arising under this Agreement. Notwithstanding anything herein to the contrary, in the event of an actual or threatened breach of this Agreement, the aggrieved Party may seek provisional equitable relief (including restraining orders, specific performance or other injunctive relief) in any court of competent jurisdiction to protect the interests of such Party.

15.11 Further Assurance. Each Party shall duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents and instruments, as may be necessary or as the other Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm unto such other Party its rights and remedies under this Agreement.

15.12 Interpretation. Except where the context otherwise requires, wherever used, the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). The captions of this Agreement are for convenience of reference only and in no way define, describe, extend or limit the scope or intent of this Agreement or the intent of any provision contained in this Agreement. The term "including" as used herein shall mean including, without limiting the generality of any description preceding such term. The language of this Agreement shall be deemed to be the language mutually chosen by the Parties and no rule of strict construction shall be applied against either Party hereto. The Parties acknowledge and agree that new products and uses for products that are covered by Patent rights may be developed based on new advances in scientific knowledge. As such, the Parties' agree that, if Company is of the opinion that such advances have resulted in changes which warrant interpretation of whether such new products or uses are included within the Sublicensed Fields of Use granted to Company herein, the Parties agree to discuss and negotiate in good faith the need for an amendment or clarification of the meaning of the rights or Fields of Use granted to Company in Section 1.1 of this Agreement in order to try to find a solution that is agreeable to the Parties. Then, if the Parties have not agreed on the necessity or the wording of such amendment within **[***]** days after beginning good faith discussions, the Parties agree that, either both Parties will jointly agree on and appoint one independent Third Party, or each of the Parties will appoint one independent Third Party and those Third Parties will appoint one additional independent Third Party (all of which Third Parties will be qualified and skilled in the scientific field and have knowledge of law related to patents and licenses) to decide whether such amendment is required to properly reflect this intention. If the appointed independent Third Party or Third Parties decide(s) that said amendment is required, the Parties hereby agree to so amend this Agreement accordingly. If the appointed independent Third Party or Third Parties decide(s) that said amendment is not required, there is no obligation on either Party to amend this Agreement. The costs of the appointed independent Third Party or Third Parties will be borne by the Party whose view has not been confirmed by such Third Party(ies).

15.13 Integration. This Agreement with its Exhibits and the Confidentiality Agreement contain the entire agreement between the Parties with respect to the Patent Rights, Exhibit D Patents and the Sublicense and supersede all other oral or written representations, statements, or agreements with respect to such subject matter.

15.14 Condition Precedent to Execution of this Agreement. The Parties understand and agree that each Party's willingness to enter into this Agreement is contingent upon the execution of both this Agreement and the mRNA RiboTherapeutics Sublicense Agreement, which grants certain other rights to Company under Patent Rights than the rights granted to Company in this Agreement.

15.15 Entire Agreement. This Agreement and the separate mRNA RiboTherapeutics Sublicense Agreement set forth the complete, final and only agreements with respect to the subject matter hereof and supersede all other agreements and understandings between the Parties with respect to the subject matter hereof. The Parties acknowledge and agree that this Agreement and the mRNA RiboTherapeutics Sublicense Agreement are separate and distinct agreements and there will be no "cross default" with respect to this Agreement and the mRNA RiboTherapeutics Sublicense Agreement.

[SIGNATURE PAGE FOLLOWS]

Each Party has caused this Agreement to be executed by its duly authorized representative.

**CELLSCRIPT, LLC**

By: [***]
Name: [***]
Title: [***]

Address: CELLSCRIPT, LLC
726 Post Road
Madison, WI 53713
USA

**BioNTech AG**

By: [***]
Name: [***]
Title: [***]

Address: BioNTech AG
An der Goldgrube 12
Mainz
Germany

**mRNA RIBOTHERAPEUTICS, INC.,**

which is executing this Agreement solely with respect to the following provisions:

- Section 6.5.1, solely with respect to acceptance of sublicense agreements assigned by Cellscript;
- Section 9.2 (9.2.1through 9.2.8);
- Section 9.5 (9.5.1 through 9.5.10); and
- Article 10.

By: [***]
Name: [***]
Title: [***]

Address: mRNA RiboTherapeutics, Inc.
726 Post Road
Madison, WI 53713
USA

**EXHIBIT INDEX**

| | |
|---|---|
| Exhibit A | Patents and Patent Applications in Patent Rights |
| Exhibit B | Sublicense Disclosure Report |
| Exhibit C | Form of Royalty Report |
| Exhibit D | Cellscript's Exhibit D Patents |

**EXHIBIT A – Patents and Patent Applications in Patent Rights**

[***]

**EXHIBIT A – Patents and Patent Applications in Patent Rights**

[***]

**Exhibit B**
**Sublicense Disclosure Report**

[***]

**EXHIBIT C – Format of Royalty Report**

[***]

**Exhibit D**

**Exhibit D Patents Sublicensed to Company under Section 1.7**