UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q/A

(Amendment No. 1)

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE QUARTERLY PERIOD ENDED June 30, 2011

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NUMBER 000-19319

VERTEX PHARMACEUTICALS INCORPORATED

(Exact name of registrant as specified in its charter)

MASSACHUSETTS (State or other jurisdiction of incorporation or organization)	**04-3039129** (I.R.S. Employer Identification No.)
130 WAVERLY STREET **CAMBRIDGE, MASSACHUSETTS** (Address of principal executive offices)	**02139-4242** (Zip Code)

(617) 444-6100
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x	Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Stock, par value $0.01 per share Class	**208,087,899** Outstanding at July 29, 2011

Explanatory Note

We are filing this Amendment No. 1 to our Quarterly Report on Form 10-Q for the three months ended June 30, 2011, which was originally filed with the Securities and Exchange Commission on August 9, 2011 (the "Quarterly Report"), for the sole purposes of filing, with fewer redactions, two exhibits for which we requested confidential treatment. The Exhibit Index also is being amended to add new officer certifications in accordance with Rule 13a-14(a) of the Exchange Act. This Amendment No. 1 continues to speak as of August 9, 2011, the date of the original filing of the Quarterly Report, and we have not updated the disclosures contained therein to reflect any events that occurred at a later date.

Item 6. Exhibits

Exhibit No.	Description	Filed with this Form 10-Q/A	Incorporation by Reference		
			Form or Schedule	Filing Date with SEC	SEC File Number
10.1	License and Collaboration Agreement, dated June 13, 2011, by and between Alios BioPharma, Inc. and Vertex Pharmaceuticals Incorporated and Vertex Pharmaceuticals (Switzerland) LLC. †		10-Q	August 9, 2011	000-19319
10.2	Research, Development and Commercialization Agreement, dated May 24, 2004, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated. † (1)	X			
10.3	Amendment No. 5 to Research, Development and Commercialization Agreement, effective as of April 1, 2011, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated. †		10-Q	August 9, 2011	000-19319
10.4	Lease, dated May 5, 2011, between Fifty Northern Avenue LLC and Vertex Pharmaceuticals Incorporated. †		10-Q	August 9, 2011	000-19319
10.5	Lease, dated May 5, 2011, between Eleven Fan Pier Boulevard LLC and Vertex Pharmaceuticals Incorporated. †		10-Q	August 9, 2011	000-19319
10.6	Amendment No. 2 to Research, Development and Commercialization Agreement, effective as of January 1, 2006, between Vertex Pharmaceuticals Incorporated and Cystic Fibrosis Foundation Therapeutics Incorporated. (2)	X			
31.1	Certification of the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.		10-Q	August 9, 2011	000-19319
31.2	Certification of the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.		10-Q	August 9, 2011	000-19319
31.3	Certification of the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.	X			
31.4	Certification of the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.		10-Q	August 9, 2011	000-19319
101.INS	XBRL Instance*		10-Q	August 9, 2011	000-19319
101.SCH	XBRL Taxonomy Extension Schema*		10-Q	August 9, 2011	000-19319
101.CAL	XBRL Taxonomy Extension Calculation*		10-Q	August 9, 2011	000-19319
101.LAB	XBRL Taxonomy Extension Labels*		10-Q	August 9, 2011	000-19319
101.PRE	XBRL Taxonomy Extension Presentation*		10-Q	August 9, 2011	000-19319
101.DEF	XBRL Taxonomy Extension Definition*		10-Q	August 9, 2011	000-19319

* Pursuant to applicable securities laws and regulations, we will be deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and will not be subject to liability under any anti-fraud provisions of the federal securities laws with respect to such interactive data files as long as we have made a good faith attempt to comply with the submission requirements and promptly amend the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. Users of this data are advised that, pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed and otherwise are not subject to liability, except as provided by applicable securities laws and regulations.

† Confidential portions of this document have been filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment.

(1) Originally filed as Exhibit 99.2 to Registrant's Current Report on Form 8-K/A on September 10, 2004.

(2) Originally filed as Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q on May 10, 2006.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

August 19, 2011

VERTEX PHARMACEUTICALS INCORPORATED

By: /s/ IAN F. SMITH

Ian F. Smith
Executive Vice President and Chief Financial Officer
(principal financial officer and
duly authorized officer)

Confidential Treatment Requested
Confidential portions of this document have been redacted and have been separately filed with the Commission

RESEARCH, DEVELOPMENT AND COMMERCIALIZATION AGREEMENT

between

Vertex Pharmaceuticals Incorporated

and

Cystic Fibrosis Foundation Therapeutics Incorporated

Information redacted pursuant to a confidential treatment request. An unredacted version of this exhibit has been separately filed with the Commission.

Research, Development and Commercialization Agreement

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RESEARCH, DEVELOPMENT AND COMMECIALIZATION AGREEMENT

Agreement made this 24th day of May, 2004, (the "Agreement"), between Vertex Pharmaceuticals Incorporated ("Vertex"), a Massachusetts corporation with principal offices at 130 Waverly Street, Cambridge, MA 02139-4242, and Cystic Fibrosis Foundation Therapeutics Incorporated, a Delaware corporation with principal offices at 6931 Arlington Road, Bethesda, Maryland 20814 ("CFFT").

This Agreement is a modification and continuation of a relationship originally set forth in an earlier Cystic Fibrosis Research Alliance and Commercialization Agreement dated as of May 19, 2000 (the "Original Agreement"), between the Cystic Fibrosis Foundation, which is an Affiliate of CFFT, and Aurora Biosciences Corporation, which was acquired by Vertex in 2001. Except as specifically provided herein, this Agreement supercedes in its entirety the Original Agreement which shall be of no further force and effect.

WHEREAS, Vertex has expertise in the discovery and development of small molecule compounds addressing a variety of diseases for which there are limited treatment options, including extensive expertise in the study of disease mechanisms and the design of novel chemical compounds which modulate biological targets with therapeutic effect; and

WHEREAS, Vertex has developed significant scientific expertise and capacity in the area of CFTR protein modulation; and

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WHEREAS, CFFT is significantly focused on the discovery and development of methods of treatment for cystic fibrosis, to which CFFT and its Affiliates bring significant scientific and human resources and financial support; and

WHEREAS, CFFT wishes to continue support for, and expand, the CFTR project underway at Vertex.

NOW, THEREFORE, in consideration of the mutual covenants set forth in this Agreement, and other good and valuable consideration, the parties agree as follows:

ARTICLE I - DEFINITIONS

For purposes of this Agreement, the terms defined in this Article 1 shall have the following meanings whether used in their singular or plural forms. Use of the singular shall include the plural and vice versa, unless the context requires otherwise:

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1.1 "Affiliate" shall mean, with respect to any Person, any other Person who directly or indirectly, by itself or through one or more intermediaries, controls, or is controlled by, or is under direct or indirect common control with, such Person. The term "control" means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise. Control will be presumed if one Person owns, either of record or beneficially, more than 50% of the voting stock of any other Person. For the avoidance of any doubt, the Cystic Fibrosis Foundation and CFFT are considered to be Affiliates.

1.2 "Agreement" means this agreement, together with all appendices, exhibits and schedules hereto, and as the same may be amended or supplemented from time to time hereafter by a written agreement duly executed by authorized representatives of each party hereto.

1.3 "Back-up Compound" shall mean, with reference to any particular Development Candidate or Drug Product Candidate, a Compound which (a) has the same principal mode of action (i.e., Potentiator or Corrector) as that Development Candidate or Drug Product Candidate; and (b) was among the group of Compounds, identified by VERTEX as potential additional lead molecules having the same principal mode of action, from which the Development Candidate was selected.

1.4 "Bulk Drug Substance" shall mean a Drug Product Candidate in bulk crystal, powder or other form suitable for incorporation in a Drug Product.

1.5 "CF" means the disease known as Cystic Fibrosis.

1.6 "CF Field" means the treatment of humans diagnosed with CF.

Information redacted pursuant to a confidential treatment request. An unredacted version of this exhibit has been separately filed with the Commission.

1.7 "CFTR" shall mean a CF transmembrane conductance regulator protein which has the biological effect of transporting molecules across human cellular membranes.

1.8 "Compound" shall mean a chemical compound, including salts and prodrugs thereof, which is synthesized and/or tested by or under the direction of VERTEX or its Affiliates during the term of the Research Program under this Agreement, or which was synthesized and/or tested by and/or under the direction of Aurora or its Affiliates under the Original Agreement; which is either a Potentiator or a Corrector, or both; and which **[***]**

1.9 "Controlled" (except in the context of Section 1.1) shall mean the legal authority or right of a party hereto to grant a license or sublicense of intellectual property rights to another party hereto, or to otherwise disclose proprietary or trade secret information to such other party, without breaching the terms of any agreement with a Third Party, infringing upon the intellectual property rights of a Third Party, or misappropriating the proprietary or trade secret information of a Third Party.

1.10 "Corrector" shall mean a Compound which, as its principal mode of therapeutic action, modulates the biological effect of CFTR by increasing **[***]**

1.11 "Development Candidate" shall mean a Compound that meets the Development Candidate Criteria for the initiation of a Development Program for the treatment of CF, and which is the subject of a notice from Vertex to CFFT that Vertex intends to commence formal pre-clinical development of the Compound in the Field pursuant to the provisions of Section 3.1 hereof.

Information redacted pursuant to a confidential treatment request. An unredacted version of this exhibit has been separately filed with the Commission.

1.12 "Development Candidate Criteria" shall mean the criteria set forth in Schedule 1.14 hereto which shall be applicable to any Compound selected by Vertex as a Development Candidate hereunder.

1.13 "Development Candidate Information" will mean a full summary of all material information known to VERTEX about a Development Candidate, which CFFT reasonably needs in order to assess the potential of that Development Candidate as a treatment for CF and to pursue CFFT's Special Rights under Sections 10.5 and 10.6, if they are applicable. Development Candidate Information will also include comparable information known to VERTEX concerning Compounds which are Back-up Compounds, as defined herein, to the Development Candidate which is the subject of the Development Candidate Information.

1.14 "Development Candidate Milestone" shall have the meaning ascribed to it in Section 4.4 hereof.

1.15 "Development Plan" shall have the meaning ascribed to it in Section 3.2.2 hereof.

1.16 "Development Program" shall mean activities associated with development of a Drug Product Candidate which are conducted by or at the direction of Vertex, its Affiliates, licensees or sublicensees, including but not limited to (a) manufacture and formulation of Drug Product Candidates for use in pre-clinical, non-clinical and clinical studies; (b) pre-clinical and non-clinical animal studies; (c) planning, implementation, evaluation and administration of human clinical trials; (d) manufacturing process development, scale-up and manufacture/analysis/QC/QA of Drug Product for clinical trials; (e) preparation and submission of applications for Regulatory Approval; and (f) post-market surveillance of approved drug

indications, as required or agreed as part of a marketing approval by any governmental regulatory authority.

1.17 "Drug Product" shall mean a finished dosage form which is prepared from Bulk Drug Substance and is ready for administration to the ultimate consumer as a pharmaceutical.

1.18 "Drug Product Candidate" shall mean any Development Candidate for which a Development Program has commenced under Section 3.1 hereunder.

1.19 "Effective Date" shall mean April 1, 2004.

1.20 "Field" shall mean the treatment of conditions or diseases in the CF Field and the Pulmonary Field.

1.21 "First Commercial Sale" shall mean the first sale of a Drug Product by Vertex or an Affiliate, licensee or sublicensee of Vertex in a country in the Territory following Regulatory Approval of the Drug Product in that country or, if no such Regulatory Approval or similar marketing approval is required, the date upon which the Drug Product is first commercially launched in that country.

1.22 "FTE" shall mean the equivalent of the work of one Vertex scientist or other project managerial professional, full time for one year, on or directly related to the Research Program. Work in the Research Program can include, but is not limited to the following activities that relate solely to the Research Program: (i) experimental laboratory work, (ii) project and research management, (iii) intellectual property creation, (iv) management activities directed toward evaluation of the commercial potential of a possible Drug Candidate, (v) recording and writing up results, (vi) reviewing literature and references, (vii) holding scientific

discussions, (viii) traveling to and attending appropriate seminars and symposia, (ix) and carrying out Joint Research Committee duties. Activities included in calculating FTE's shall not include negotiation of this Agreement or modifications or extensions thereof or administration activities such as accounting, invoicing, personnel related activities or the like. Moreover, activities specified in (iv) through (ix) above shall be taken into account only when performed by individuals substantially all of the activities of whom are otherwise dedicated to the Research Program. FTE's shall include equivalent scientific work in the Research Program delegated to and carried out by contractors, under the general direction of Vertex scientists; provided, that not more than half of the total Research Program FTEs shall be delegated to Third Parties. FTE's which result from work delegated to and carried out by contractors, if not separately accounted for by the contractor, will be computed by dividing the total amount of the contractor's invoice by **[***]**, and the resulting FTE calculation will be separately identified by Vertex on its reports provided to CFFT under Section 4.3 hereof.

1.23 "Joint Research Committee" or "JRC" shall have the meaning ascribed to it in Section 2.6 of Agreement.

1.24 "Joint Steering Committee" or "JSC" shall have the meaning ascribed to it in Section 2.7 of Agreement.

1.25 "Net Sales" with respect to any Drug Product shall mean the gross amount invoiced by Vertex and any Vertex Affiliate, licensee or sublicensee for that Drug Product sold in bona fide, arms-length transactions to Third Parties for use in the Field, less (i) quantity and/or cash discounts from the gross invoice price which are actually allowed or taken; (ii) freight, postage and insurance included in the invoice price; (iii) amounts repaid or credited by reasons

of rejections or return of goods or because of retroactive price reductions specifically identifiable to the Drug Product; (iv) amounts payable resulting from government (or agency thereof) mandated rebate programs; (v) third-party rebates to the extent actually allowed; (vi) invoiced customs duties and sales taxes (excluding income, value-added and similar taxes), if any, actually paid and directly related to the sale that are not reimbursed by the buyer; and (vii) any other specifically identifiable amounts included in the Drug Product's gross invoice price that should be credited for reasons substantially equivalent to those listed above; all as determined in accordance with Vertex's usual and customary accounting methods, which are in accordance with generally accepted accounting principles.

1.25.1 In the case of any sale or other disposal of a Drug Product between or among Vertex and its Affiliates, licensees and sublicensees, for resale, Net Sales shall be calculated as above only on the value charged or invoiced on the first arm's-length sale thereafter to a Third Party;

1.25.2 In the case of any sale which is not invoiced or is delivered before invoice, Net Sales shall be calculated at the time of shipment or when the Drug Product is paid for, if paid for before shipment or invoice;

1.25.3 In the case of any sale or other disposal for value, such as barter or counter-trade, of any Drug Product, or part thereof, other than in an arm's length transaction exclusively for money, Net Sales shall be calculated as above on the value of the consideration received or the fair market price (if higher) of the Drug Product in the country of sale or disposal;

1.25.4 In the event the Drug Product is sold in a finished dosage form containing the Drug Product in combination with one or more other active ingredients (a "Combination

Product"), the Net Sales of the Drug Product, for the purposes of determining royalty payments, shall be determined by **[***]** The principles of this section shall also apply to a Combination Product in the event Sections 10.5.5, 10.5.6 and 10.6.2 are applicable.

1.26 "Patents" means all existing patents and patent applications and all patent applications hereafter filed, including any continuation, continuation-in-part, division, provisional or any substitute applications, any patent issued with respect to any such patent applications, any reissue, reexamination, renewal or extension (including any supplementary protection certificate) of any such patent, and any confirmation patent or registration patent or patent of addition based on any such patent, and all foreign counterparts of any of the foregoing.

1.27 "Person" means any individual, corporation, partnership, association, joint-stock company, trust, unincorporated organization or government or political subdivision thereof.

1.28 "Positive Control" shall mean with respect to a Corrector, the Compound known as **[***]**, and with respect to a Potentiator, the Compound known as **[***]**, except as otherwise agreed by the Parties.

1.29 "Potentiator" shall mean a Compound which, as its principal mode of therapeutic action, modulates the biological effect of CFTR by enhancing the gating activity of ΔF508 CFTR present in the apical cell membrane.

1.30 "Prime Rate" shall mean the average prime rate published in the *Wall Street Journal* during the relevant period.

1.31 This section has been intentionally left blank.

1.32 "Pulmonary Field" shall mean the treatment of diseases of the human pulmonary tract or lungs, other than CF.

1.33 "Regulatory Approval" shall mean, with respect to any country, all authorizations by the appropriate governmental entity or entities necessary for commercial sale of a Drug Product in that country including, without limitation and where applicable, approval of labeling, price, reimbursement and manufacturing. "Regulatory Approval" in the United States shall mean final approval of a new drug application pursuant to 21 CFR § 314, permitting marketing of the applicable Drug Product in interstate commerce in the United States. "Regulatory Approval" in the European Union shall mean final approval of a Marketing Authorization Application, or equivalent.

1.34 "Research Plan" shall have the meaning set forth in Section 2.4 hereof.

1.35 "Research Program" shall mean all research activities undertaken under this Agreement associated with the identification and design of Compounds and Development Candidates as provided herein; including but not limited to the identification and initial testing of Compounds; the conduct of those activities referenced in the Development Candidate Criteria with respect to Compounds; selection of Development Candidates and the presentation of those Development Candidates and related Development Candidate Information to CFFT.

1.36 "Research Termination Date" shall mean the earlier of December 31, 2005 or the date upon which the Research Program is terminated under Article X.

1.37 "Termination Know-How Package" shall mean, for the Research Program generally or for a particular Program (Primary or Alternate) within the Research Program, as the context may require, (a) all data and study results (including formulae for calculating EC50 and efficacy) from *in vitro* and *in vivo* efficacy testing and experimentation conducted with respect to Compounds under that Program, pursuant to the applicable Research Plan or Subplan, all as

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recorded in electronic form in Vertex's electronic database known as VERDI (Vertex Research Data Interface), and including Compound structure information; (b) standard operating procedures for the following assays: **[***]** all as conducted with commercially available instruments and equipment, and any other assay the creation of which was substantially paid for by CFFT under the Research Program or the Original Agreement and supported by medicinal chemistry during the Research Program or the Original Agreement; and (c) any physical stocks of Compounds from the Program which are on hand on the date of Interruption, and information on chemical routes Controlled by Vertex for synthesis of additional stocks of Compounds.

1.38 "Territory" shall mean worldwide.

1.39 "Third Party" shall mean any person or entity which is not a party or an Affiliate of any party to this Agreement.

1.40 "Third Party Referral" shall mean the procedure for resolution of certain disputes hereunder which is set forth in Section 12.2(b) hereof.

1.41 "Vertex CF Technology" shall mean all data, technical information, know-how, inventions (whether or not patented) trade secrets, processes and methods discovered or developed, and Controlled by Vertex or its Affiliates, in the course of its performance of the Research Program under this Agreement, or in the course of activities undertaken by Vertex or Aurora under the Original Agreement, and related to CFTR modulation; provided, however, that the term "Vertex CF Technology" shall not apply to Vertex's general drug design technology whether in hardware or software form, tangible or intangible.

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1.42 "Vertex Patents" shall mean any Patents Controlled by Vertex or its Affiliates claiming Vertex CF Technology.

ARTICLE II— RESEARCH PROGRAM

2.1 Commencement; Objective.

Research under the Original Agreement commenced on May 19, 2000 and is being continued under this Agreement pursuant to the Research Program described below. Vertex will be principally responsible for the conduct of the Research Program and CFFT will provide financial support, consultation and advice as provided herein and through its participation on the JRC and the JSC as provided below. The Research Program will be directed toward the identification of Development Candidates which are suitable for development and commercialization as human therapeutics for the treatment of CF.

2.2 Term.

The Research Program will be deemed to have commenced on the Effective Date, and will conclude on December 31, 2005, unless extended by agreement of the parties (including any such extension, the "Research Termination Date"), or unless earlier terminated in accordance with the provisions of Article X hereof. The parties may discuss at any time whether, and upon what basis, the Research Program might be extended beyond the initial Research Termination Date, and those discussions may include proposed extensions under Section 2.9 hereof.

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2.3 Research Diligence.

The common objective of the parties is to identify Development Candidates as soon as practicable for worldwide development and marketing under the terms of this Agreement. Vertex will work diligently and use all reasonable efforts, consistent with prudent business judgment, to identify Development Candidates and to commence the development of those Development Candidates as Drug Product Candidates. Vertex will dedicate to the Research Program at least that level of staffing referenced in Section 4.1 hereof, and expects to employ an optimal combination of experience and training in the CF Field.

2.4 Research Plan.

2.4.1 General. Vertex and CFFT have agreed upon an overall research plan for the Research Program, a copy of which is attached to this Agreement as Exhibit 2.4. The JRC will review and evaluate the Research Plan, taking into consideration ongoing research outcomes and other scientific and commercial developments, at each meeting of the JRC after the Effective Date, and any resulting modifications will be incorporated into the Research Plan (the original plan, and any such modifications are referred to herein as the "Research Plan"). Modifications to the Research Plan may be proposed by either Vertex or CFFT and will be reviewed by the JRC before being adopted. Any modification to the Research Plan that would (a) reduce the levels of FTE resources to be devoted by Vertex to the Research Program below the minimum provided in Section 4.1; or (b) materially alter the overall allocation of Research Program resources between the Primary and the Alternate Program, from the allocation specified in Section 4.1 hereof or (c) materially alter the goals and/or scientific focus of the Research Plan, shall not be adopted

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without the approval of CFFT, which will act expeditiously on any such proposal made by Vertex.

2.4.2 Primary and Alternate Programs. Potentiators and Correctors are thought to operate through different CFTR modulator mechanisms. Based on research efforts conducted under the Original Agreement and during 2004, Vertex in consultation with CFFT will determine, on or before the end of 2004, whether in its judgment the development of Potentiators or Correctors represents the most promising approach to disease modification in the Field, based on scientific, regulatory, medical and business considerations. Thereafter, Vertex's activities under the Research Program aimed at identifying Development Candidates which act through the mechanism deemed by Vertex to be the most promising — either Potentiator or Corrector — will be called the "Primary Program" of research, and research activity directed toward the other mechanism will be referred to as the "Alternate Program."

2.4.3 Primary and Alternate Subplans. As soon as practicable after the Primary and Alternate Programs have been designated, Vertex will prepare and submit to the JRC for its review and comment research plans for the Primary Program (a "Primary Subplan") and the Alternate Program (an "Alternate Subplan") in each case covering the balance of the time remaining until the Research Termination Date. The Plans will be accompanied by budgets for the remaining period prior to the Research Termination Date. The budgets will each specify the aggregate amounts allocated for internal FTE's and other costs and the aggregate amounts allocated for external FTE's and other costs, and will be otherwise consistent with the requirements of Section 4.1 hereof. The date upon which the Primary Subplan, the Alternate

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Subplan, and the related budgets have been submitted to the JRC shall be called the "Primary Program Designation Date."

2.5 CFFT Special Rights at Program Selection Point.

If CFFT shall disagree with Vertex's choice in designating the Primary Program, it may refer the matter to the JSC for review under Section 2.7.1(iii) hereof, and may in any event:

2.5.1 Accept any decision of the JSC and proceed accordingly; or

2.5.2 Terminate support of the Primary and Alternative Programs upon the terms and with the consequences specified in Section 10.5 hereof;

2.6 Joint Research Committee.

2.6.1 Composition and Purposes. Vertex and CFFT have established a Joint Research Committee ("**JRC**") consisting of at least **[***]** (as may be increased or decreased by the JRC), half of whom shall be designated from time to time by each party. If the JRC chooses to designate a Committee Chair, the Chair will be appointed from among the members of the Committee designated by VERTEX. The JRC shall meet formally no less frequently than once in each three (3) month period during the Research Program, and at such time and location, as may be established by the Committee, for the following purposes:

(i) To review reports prepared by Vertex, which shall be submitted to the JRC within fifteen (15) days prior to each meeting, and shall include a thorough summary in written text of progress made during

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the preceding three month period under the Research Plan (although chemical structures will only be disclosed to CFFT in the context of a publication referenced in Article VII hereof, or as part of the Termination Know-How Package provided to CFFT in connection with an Interruption) and to CFFT's chemistry advisors in accordance with the following sentence. Chemical Structures will be separately disclosed to CFFT's chemistry advisors serving on the JRC, who will agree to maintain the confidentiality of the structures, to allow them to fulfill their JRC responsibilities; provided that Vertex shall not be required to disclose structures to any advisors other than CFFT's chemistry advisors who are currently working with Vertex on CFFT's behalf, and to any other chemistry advisors approved by Vertex, which approval shall not be unreasonably withheld.

(ii) To review and discuss the Research Plan, and the Primary and the Alternate Subplans prepared by Vertex as provided in Section 2.4.3 above, and evaluate any proposed revisions to any of those Plans;

(iii) To assist Vertex in determining as soon as possible whether the Potentiator or Corrector approach should be the subject of the Primary Program; and

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(iv) To review Development Candidates proposed by Vertex and to assess whether a given Development Candidate proposed by Vertex meets the Development Candidate Criteria.

Vertex shall prepare and deliver minutes of the meeting to the members of the JRC, within thirty (30) days after the date of each meeting, setting forth, *inter alia*, all decisions of the JRC, and including as an attachment the report on the progress of work performed required by Section 2.6.1(i).

2.6.2 Decision-Making.

(i) Each of Vertex and CFFT shall have one vote on the JRC. The objective of the JRC shall be to reach agreement by consensus on all matters within the scope of the Research Plan or any Subplan. However, in the event of a deadlock with respect to any action (which shall be deemed to have occurred if either party shall request a vote of the JRC on a matter and that vote shall either not be taken within thirty (30) days of the request or if taken shall result in a tie vote) and subject to the procedure set forth in subsections (ii) and (iii) below as to certain matters, the vote of Vertex, rendered after reasonable and open discussion among the members of the JRC, shall be final and controlling.

(ii) Notwithstanding the foregoing, with respect to JRC decisions

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(x) as to which approach — Potentiator or Corrector — should be the subject of the Primary Program, any disagreement between the parties that cannot be resolved within thirty (30) days by the JRC shall be referred to the JSC and, failing agreement, Vertex's selection shall be controlling and CFFT shall have the alternatives set forth in Sections 10.5.1 and 10.5.3 below; and

(y) as to whether or not a given Compound proposed by Vertex as a Development Candidate actually meet the Development Candidate Criteria, any disagreement between the parties that cannot be resolved within thirty (30) days by the JRC shall be referred to the JSC for resolution and if not resolved within seven (7) business days after referral, shall be referred for resolution by the Chief Executive Officer of Vertex and the Chief Executive Officer of CFFT, and failing resolution, the matter will be referred for final decision under the provisions of Section 12.2(b) of this Agreement; and

(z) as to the nature and extent of any additional Development Candidate Criteria referenced in Section 2.6.3 hereof, if any disagreement cannot be resolved by the JRC

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and the JSC as provided in (x) above, then there will be no change in the Development Candidate Criteria.

(iii) Notwithstanding the provisions of Section 2.6.2(i) hereof, if Vertex and CFFT deadlock on any matters being considered by the JRC which might have a significant impact on the time or likely success of the Research Program (other than those matters addressed in Section 2.6.2(ii) hereof), the matter shall be referred to the JSC for resolution in accordance with Section 2.7.1(iii) hereof.

(iv) Each party shall retain the rights, powers, and discretion granted to it under this Agreement, and the JRC shall not be delegated or vested with any such rights, powers or discretion except as expressly provided in this Agreement. The JRC shall not have the power to amend or modify this Agreement, which may only be amended or modified as provided in Section 12.15.

2.6.3 Additional Development Candidate Criteria. The parties acknowledge that it may be necessary or appropriate to adopt additional Development Candidate Criteria which more specifically define the pre-development characteristics of Compounds which the parties believe may be suitable for development and commercialization based upon the particular mode of action of that Compound as a Potentiator or Corrector. The parties will use good faith efforts through their respective representatives on the JRC to agree on any such additional Development Candidate Criteria as soon as practicable after a change is proposed to the JRC by

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either party. Any disagreements with respect to the selection of additional Development Candidate Criteria hereunder will be addressed as provided in Section 2.6.2(ii).

2.7 Joint Steering Committee.

2.7.1 Composition and Purposes. Vertex and CFFT have established and will continue to participate in a Joint Steering Committee ("JSC") which shall consist of an equal number of senior management personnel as may be agreed by the parties from time to time. The JSC shall initially have six (6) members. If the JSC chooses to designate a Committee Chair, the Chair will be appointed from among the members of the JSC designated by Vertex. The JSC shall meet semi-annually, or with such other frequency, and at such time and location, as may be established by the Committee, for the following purposes:

(i) To provide general oversight of the Research Program ;

(ii) To periodically review the overall goals and strategy of the Research Program;

(iii) To discuss and attempt to resolve any deadlocked issues submitted to it by the JRC, although the vote of Vertex's representatives shall prevail if the JSC is unable to reach a consensus on any matter other than matters referred to it under Section 2.6.2(ii) (x) and 2.6.2 (ii)(z), which shall be resolved as provided therein.

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2.8 Exchange of Information.

2.8.1 Vertex will share information with the JRC, as soon as it is available, necessary to facilitate mutual understanding of the status of the Research Program and decision-making in connection therewith.

2.8.2 CFFT shall not use Vertex CF Technology (excluding information which is no longer subject to confidentiality restrictions under Article V by reason of the exceptions set forth in Section 6.2) for any purpose, including the filing of patent applications containing such information, without Vertex's consent, except as otherwise explicitly permitted in this Agreement.

2.9 Extension of Research Termination Date.

Vertex and CFFT may extend the term of the Research Program, or the term of either the Primary Program or the Alternate Program, by mutual agreement. Any party desiring such an extension shall notify the other party in writing of that fact not less than sixty (60) days prior to the initial Research Termination Date. That notice shall include a summary of the material terms upon which the extension is proposed. The general expectation of the parties is that any such extension would be undertaken on terms substantially identical to those which appear in this Agreement, except that CFFT would bear only **[***]** of Vertex's on-going research costs. Any such proposal that relates to an extension of the Research Program, generally, shall be called a "Research Extension Proposal," and proposals that relate to extensions of the Primary Program or the Alternate Program, respectively, shall be called a "Primary Extension Proposal" or an "Alternate Extension Proposal."

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2.10 Third Party Testing.

At CFFT's written request (a "Testing Request") delivered as provided below, Vertex will supply to an "Agreed Lab" reasonably adequate quantities of its "Lead Compounds" as necessary to enable the Agreed Lab to conduct *in vitro* testing of the efficacy and potency of the Lead Compounds in agreed CF assay models. All such testing will be undertaken at the expense of CFFT in addition to any funding otherwise provided hereunder.

An "Agreed Lab" is a commercial testing laboratory unaffiliated with either CFFT or Vertex and reasonably acceptable to both, which (a) specializes in rendering services to the pharmaceutical industry and has nationally recognized expertise in the testing of pharmaceutical compounds; (b) has a superior reputation for integrity in dealing with the proprietary information of others and would be free of any real or apparent conflict of interest in performing the services which are the subject of this Section 2.10; and (c) is bound by the terms of a confidentiality agreement with Vertex which is customary in form and content, which covers the testing contemplated by this Section 2.10, and which permits the Lab to report to CFFT, directly, the results which it obtains with respect to efficacy and potency of the Lead Compounds, but only those results.

A "Testing Request" is a written request relating to the testing of Lead Compounds from either or both of the Primary and the Alternate Programs, which is delivered by CFFT to Vertex during any of the following periods: (i) the ninety day period beginning on the Primary Program Designation Date; (ii) the ninety day period prior to the due date for delivery to Vertex of any Early Termination Notice under Section 10.5.2 hereof; and (iii) the sixty day period beginning

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with the delivery by either party to the other of a Research Extension Proposal as provided in Section 2.9 hereof.

"Lead Compounds" shall mean not more than two Compounds from each Program — Primary or Alternate - for which a Testing Request is delivered, none of which are a Development Candidate, which meet the following criteria: (i) the Compound(s) have been selected by Vertex from the Primary Program and/or the Alternate Program, as relevant to the Testing Request (assuming CFFT has not terminated the Alternate Program under the provisions of Section 10.5.3 hereof); (ii) each Compound will be representative of those Compounds in each Program which Vertex believes to be the most promising as potential Drug Products; and (iii) each Compound shall have been previously tested by Vertex, *in vitro*, as to potential efficacy and potency in CF, and the results of that testing shall have been provided to CFFT.

Vertex and CFFT acknowledge that commercially available assays for the testing of Lead Compounds may yield results which are less robust than the results obtained by Vertex in its own proprietary assays. The parties also acknowledge that the transfer of Vertex's proprietary assays to an Agreed Lab may be difficult, and the results less than satisfactory, without a commitment of substantial time and effort by Vertex which, if undertaken, may adversely impact the progress of the Research Program. Therefore, the parties agree that Vertex's responsibility for the testing provided under this Section 2.10 shall be limited as follows: (a) Vertex will cooperate with CFFT in the selection of an Agreed Lab as soon as practicable following the Effective Date, as may be requested by CFFT, and thereafter will assist in the determination whether commercially available assays conducted by the Lab are likely to provide satisfactory results; (b) Vertex will

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provide the Lab with requisite amounts of each Lead Compound, in connection with formal Testing Requests from CFFT as provided above, and up to three additional Compounds from each of the Primary or Alternate Programs, out of any supplies which Vertex may have on hand, the chemical structures of which have been published by Vertex in peer-reviewed journals or through posters or presentations at scientific conferences, which the Agreed Lab may use for control purposes; (c) Vertex will provide telephone consulting to appropriate representatives of the Agreed Lab concerning applicable assay methodology; (d) if the parties conclude that conventional testing will not yield adequate results, and upon the formal written request of CFFT rendered with due regard to **[***]** to establish an assay based on proprietary protocols from Vertex, Vertex will provide its proprietary assay protocol to the Agreed Lab sufficiently in advance of any testing provided for in this Section 2.10 to accommodate such testing, under provisions of confidentiality, restricted access and non-use (for other than testing hereunder), and will ensure that appropriate Vertex representatives are available by telephone from time to time to answer questions and otherwise assist the Agreed Lab representatives in their efforts to establish Vertex's proprietary assay. Vertex shall in no event be responsible for any failure by the Agreed Lab to establish an effective assay using Vertex's protocols, nor shall any time periods provided herein for action by CFFT be extended by reason of any such failure.

ARTICLE III- DEVELOPMENT

3.1 Commencement of Development Program.

As soon as Vertex has identified a Development Candidate which it believes meets the Development Candidate Criteria, it will so notify CFFT and the JRC and will include

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with that notice the Development Candidate Information with respect to that Development Candidate and its Back-up Compounds. Vertex will promptly commence and pursue a Development Program with respect to that Development Candidate, at its expense, applying diligent, commercially reasonable efforts to develop Drug Product Candidates into Drug Products, consistent with those used by Vertex for its own compounds of similar potential.

3.2 Joint Development Committee.

3.2.1 Formation and Responsibilities. As soon as practicable after the commencement by Vertex of a Development Program with respect to a Drug Product Candidate, VERTEX will establish a Joint Development Committee ("JDC") which shall include a representative designated by CFFT. Additional JDC's, which shall also include one CFFT representative, may be established from time to time in connection with the development of additional Drug Product Candidates. The JDC (or its successor organization, as designated by Vertex) will be the principal organization through which the development of a Drug Product Candidate is planned, administered, evaluated and completed, subject to appropriate review and approval at senior management levels as required by VERTEX from time to time. In addition to the CFFT member, the JDC will typically have members from the various functional groups (e.g., research, preclinical safety, clinical, regulatory, marketing) which are or will be expected to be involved in development and launch of the Drug Product Candidate. VERTEX will appoint the JDC Chair. The JDC will typically meet at least quarterly, depending on the level of current development activity, and will be responsible for preparation and implementation of the Development Plan described in Section 3.2.2 below with respect to each Drug Product Candidate.

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3.2.2 Development Plan. The JDC shall be responsible for review of the goals and strategy for development of each Drug Product Candidate and shall prepare and oversee the implementation of an overall Development Plan for each Drug Product Candidate. The Development Plan shall, among other things, detail, schedule and fully describe the proposed toxicology studies, clinical trials, regulatory plans, clinical trial and commercial material requirements, and process development and manufacturing plans for each Drug Product Candidate, along with relevant budget information for the described items, and will outline the key elements involved in obtaining Regulatory Approval in each country where the Drug Product is to be marketed.

3.2.3 Meeting Materials. The JDC will consider all information that is material to an assessment of the status, direction and progress of the Development Program, including all clinical trials protocols, data and reports. The JDC Chair will ensure that minutes are prepared and distributed to each member of the JDC promptly after each meeting. Those minutes shall contain a report on the activities of the JDC during its meeting. CFFT's representative on the JDC will receive all documents and information distributed or communicated to members of the JDC, and may review copies of all other information material to the development of a Drug Product Candidate unless the JDC denies access to that information for demonstrable competitive reasons.

3.2.4 CFFT and its Affiliates will use good faith efforts to enlist the Therapeutic Development Network and its resources and expertise in support of the development efforts for each Drug Product Candidate, and will involve appropriate Vertex representatives in that effort.

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3.3 Development Responsibility and Costs.

Vertex will have sole responsibility for, and bear the cost of conducting, the Development Program with respect to each Drug Product Candidate.

3.4 Regulatory Approvals.

Vertex shall be solely responsible for preparing and submitting registration dossiers for Regulatory Approval of Drug Product Candidates in the Territory.

3.4.1 Vertex Ownership. All Regulatory Approvals shall be held by and in the name of Vertex, and Vertex shall own all submissions in connection therewith.

3.4.2 Principal Interface. All formulary or marketing approvals shall also be obtained by and in the name of Vertex, and Vertex will be the principal interface with and will otherwise handle all interactions with regulatory agencies concerning any Drug Product.

3.4.3 Regulatory Meetings. If requested by Vertex, CFFT will arrange for one or more representatives of CFFT to participate in meetings between representatives of Vertex and any of the FDA, the EMEA and Koseisho (MHW Japan), to the extent that Vertex reasonably believes that representatives from CFFT would further the regulatory approval process.

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ARTICLE IV — PAYMENTS

4.1 Staffing and Research Support Payments.

CFFT will make the payments to Vertex specified below during 2004 and 2005 in support of the Research Program under this Agreement.

[***]	**[***]**
[***]	**[***]**
[***]	**[***]**

Total	**$ 21.281**

Vertex will dedicate a minimum average **[***]** during its term, **[***]** Unless otherwise agreed in writing by CFFT, from and after the earlier of the date upon which Vertex notifies CFFT of its selection of a Primary and an Alternate Program, Vertex will devote **[***]** to the Alternate Program, and will apply **[***]**. Subject to the foregoing requirements, the research support specified above can be allocated as Vertex may determine in good faith between in-house and outside resources, between the Primary Program and the Alternative Program, and between and among individual budget line items.

4.2 Budget.

The initial budget for the Research Program is attached hereto as Exhibit 4.2 (the "Initial Budget"). Any material revisions to the Initial Budget which would result in an increase

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in total funding for the Research Program, or which are specified in Section 2.4.1, will require the prior approval of CFFT. Any other adjustments to the Research Program budget may be undertaken by Vertex with prior notice to, but without prior approval from, CFFT. The Initial Budget as revised or adjusted pursuant to the foregoing and in effect at any given time, shall be called the "Current Budget." Vertex will provide CFFT with quarterly reports, within thirty (30) days after the end of each quarter, showing expenses incurred under the Research Program during the quarter just ended against budgeted expenses for that quarter.

4.3 Payments.

Payments due under the Current Budget on account of internal FTEs shall be made by CFFT **[***]**. Payments due under the Current Budget on account of external costs shall be made by CFFT **[***]** All payments shall be made without deduction for withholding or other similar taxes, in United States dollars to the credit of such bank account as may be designated by Vertex in writing to CFFT. Any payments which fall due on a date which is a legal holiday in The Commonwealth of Massachusetts may be made on the next following day which is not a legal holiday in the Commonwealth. On or before each of March 1, 2005 and March 1, 2006, Vertex will provide CFFT with an accounting of all internal FTE costs and outsourcing costs incurred under the Research Program during the most recently concluded calendar year. Internal FTE costs will be calculated **[***]**. Costs incurred will be compared with funds provided by CFFT on account of that year, and **[***]**.

4.4 Clinical Trial Commencement Milestone.

CFFT will pay to Vertex the sum of $1.5 million (the "Development Candidate Milestone") with respect to the first Drug Product Candidate under the Research Program to

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commence human clinical trials of that Drug Product Candidate in any country with a generally accepted system of Regulatory Approvals. The first human clinical trial of a Drug Product Candidate will be deemed to have commenced when that Candidate is first dosed in a human under a clinical trial protocol which has been approved by the relevant oversight authority in the country in which the trial is being conducted. Payment with respect to a Drug Product Candidate will be made within thirty (30) days after receipt by CFFT of notice from Vertex that human clinical trials of that Drug Product Candidate have commenced.

4.5 Records.

Vertex shall keep accurate records and books of accounts containing all data reasonably required for the calculation and verification of FTE's employed, and outsourcing costs incurred, by Vertex in the Research Program. CFFT, through an independent accounting firm unaffiliated with either CFFT or Vertex, shall have the right at its expense to audit Vertex's relevant records to verify compliance with FTE and other research funding allocation requirements hereunder.

At CFFT's request, VERTEX shall make those records available, no more than once a year, during reasonable working hours, for review by a recognized independent accounting firm acceptable to both parties, at CFFT's expense, for the sole purpose of verifying the accuracy of those records in the calculation of Research Program FTEs and outsourcing costs. Vertex shall not, however, be required to retain or make available to CFFT or its accountants, any such records or books of account for either 2004 or 2005, beyond thirty-six (36) months from the termination of the Research Program. CFFT shall cause the accounting firm to retain all such information in confidence.

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In the event that the aggregate costs actually chargeable to the Research Program during any year are less than the amount previously advanced to Vertex by CFFT and properly attributable to that year (a "Negative Difference"), in addition to reimbursing CFFT for the Negative Difference

plus interest calculated at **[***]** if the Negative Difference is more than **[***]** then Vertex shall also pay the reasonable costs of the independent accountant employed by CFFT in the review.

4.6 Payments Due Under the Original Agreement.

Vertex acknowledges that no further milestone payments, beyond those made to Vertex prior to the Effective Date of this Agreement under the Original Agreement. Outsource costs incurred by Vertex under the Original Agreement prior to the Effective Date will be reimbursed by CFFT under the terms of the Original Agreement from available funds provided under the Original Agreement. Except as specified in the preceding sentence, neither Vertex nor CFFT shall have any remaining obligations under the Original Agreement after the Effective Date.

ARTICLE V — COMMERCIALIZATION; ROYALTIES

5.1 Marketing and Promotion.

Vertex and/or its licensees and sublicensees shall have exclusive rights to market, sell and distribute all Drug Products in the Territory, subject to the Special CFFT Rights provided in Sections 10.5 and 10.6 below.

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5.2 Due Diligence.

Vertex shall use diligent and commercially reasonable efforts consistent with the requirements of the Development Program and sound and reasonable business practices and judgment to effect introduction of Drug Products into major markets in North America and Europe as soon as reasonably practicable, devoting the same degree of attention and diligence to those efforts that it devotes to similar activities for its other products of comparable market potential.

5.3 Royalties.

5.3.1 Net Sales in the Field. Vertex shall pay to CFFT the following royalties on annual Net Sales of each Drug Product:

4% **[***]** Net Sales

[***] Net Sales

[***] Net Sales **[***]**

[***] Net Sales under this Section 5.3.1 shall not in any event include any Net Sales of Drug Products which are the subject of the royalty obligations set forth in Sections 5.3.2, 10.5.4, 10.5.5, and 10.5.6 hereof.

5.3.2 Net Sales outside the Field. Vertex shall pay CFFT a royalty of **[***]** of annual Net Sales of each Drug Product for use outside the Field.

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5.4 Sales Reports.

(a) After the First Commercial Sale of a Drug Product, Vertex shall furnish or cause to be furnished to CFFT on a quarterly basis a written report or reports covering each calendar quarter (each such calendar quarter being sometimes referred to herein as a "reporting period") within sixty days after the close of each quarter showing, for Net Sales in the Field and, separately, for Net Sales outside the Field, (i) the Net Sales of each Drug Product in each country in the world during the reporting period by Vertex and each Affiliate, licensee and sublicensee; (ii) the royalties, payable in U.S. dollars ("Dollars"), which shall have accrued under Section 5.3 hereof in respect of such sales and the basis of calculating those royalties; (iii) withholding taxes, if any, required by law to be deducted from any royalties payable in respect of any such sales; (iv) the exchange rates used in converting into Dollars, from the currencies in which sales were made, any payments due which are based on Net Sales; and (v) dispositions of Drug Products other than pursuant to sale for cash. With respect to sales of Drug Products invoiced in Dollars, the Net Sales amounts and the amounts due to CFFT hereunder shall be expressed in Dollars. With respect to sales of Drug Products invoiced in a currency other than Dollars, the Net Sales and amounts due to CFFT hereunder shall be expressed in the domestic currency of the party making the sale, together with the Dollar equivalent of the amount payable to CFFT, calculated by translating foreign currency sales into U.S. dollars based on the average of the exchange rates reported in *The Wall Street Journal* or comparable publication over the period covered by the royalty report. If any licensee or sublicensee makes any sales invoiced in a currency other than its domestic currency, the Net Sales shall be converted to its domestic currency in accordance with the licensee's or sublicensee's normal accounting principles. Vertex shall furnish to CFFT appropriate evidence of payment of any tax or other amount required by applicable laws or

regulations to be deducted from any royalty payment payable by Vertex to CFFT pursuant to this Agreement, including any tax or withholding levied by a foreign taxing authority in respect of the payment or accrual of any royalty. Reports shall be due on the thirtieth (30th) day following the close of each reporting period, although Vertex shall also provide CFFT with a "flash" report of Net Sales, only, within ten (10) business days after the end of each month. Vertex shall keep accurate records in sufficient detail to enable the amounts due hereunder to be determined and to be verified by CFFT.

(b) Amounts shown to have accrued by each sales report provided for under Section 5.4(a), above, shall be due and payable on the date that sales report is due.

(c) All payments shall be made in Dollars. If at any time legal restrictions prevent the prompt remittance of any payments with respect to any country in the Territory where Drug Products are sold, Vertex or its sublicensees shall have the right and option to make such payments by depositing the amount thereof in local currency to CFFT's account in a bank or depository in such country.

(d) Upon the written request of CFFT, at CFFT's expense and not more than once in or in respect of any calendar year, Vertex shall permit an independent accountant of national prominence selected by CFFT, to have access during normal business hours to those records of Vertex as may be reasonably necessary to verify the accuracy of the sales reports furnished by Vertex pursuant to this Section 5.4, in respect of any calendar year ending not more than thirty-six (36) months prior to the date of such notice. The report prepared by such independent accountant, a copy of which shall be sent or otherwise provided to Vertex by such independent accountant at the same time it is sent or otherwise provided to CFFT, shall contain the conclusions of such independent accountant regarding the audit and will specify that the

amounts paid to CFFT pursuant thereto were correct or, if incorrect, the amount of any underpayment or overpayment. If such independent accountant's report shows any underpayment, Vertex shall remit to CFFT within thirty (30) days after Vertex's receipt of such report, (i) the amount of such underpayment plus interest at the Prime Rate plus two (2) percentage points calculated from the date such payment is due, and (ii) if such underpayment exceeds **[***]** then being audited, the reasonable and necessary fees and expenses of such independent accountant performing the audit, subject to reasonable substantiation thereof. Any overpayments shall be fully creditable against amounts payable in subsequent payment periods. CFFT agrees that all information subject to review under this Section 5.4 or under any sublicense agreement is confidential and that CFFT shall retain and cause its accountant to retain all such information in confidence. Upon the expiration of thirty-six (36) months following the end of any calendar year, the calculation of amounts payable with respect to such fiscal year shall be binding and conclusive upon CFFT, and Vertex shall be released from any liability or accountability with respect to payments for such year.

(e) In case of any delay in payment by Vertex to CFFT not occasioned by Force Majeure, interest shall be calculated at the **[***]** from the tenth (10^{th}) day after the due date of the payment, shall be due from Vertex.

5.5 Vertex First Negotiation Right re: CFF Royalty Disposition.

If CFFT should wish to assign, sell or otherwise transfer rights in or to any of the royalty payments due or to become due from Vertex, its Affiliates, successors, assignees, licensees or sublicensees under any of the provisions of this Agreement, or to undertake any transaction which would have the same or a similar effect as any such assignment, sale or

transfer, it will provide Vertex with sixty (60) days prior written notice (a "Transfer Notice"), and during that sixty day period will at Vertex's request negotiate with Vertex in good faith, with the objective of reaching an agreement under which those CFFT rights which were the subject of the Transfer Notice would be assigned, sold or transferred to Vertex, its successors or assigns in lieu of an assignment, sale, transfer or other transaction to or with a Third Party. If at the end of the sixty day period referenced above Vertex and CFFT have been unsuccessful in negotiating mutually agreeable terms of assignment, sale or transfer, then CFFT shall be under no further obligation to Vertex under this Section 5.5, unless it shall not conclude a transaction with a Third Party covering the rights which were the subject of the initial Transfer Notice within twelve (12) months after the date of delivery of that Transfer Notice, in which event any subsequent effort to assign, sell or transfer any of those rights shall be once again subject to the terms of this Section 5.5.

ARTICLE VI - CONFIDENTIALITY

6.1 Undertaking.

During the term of this Agreement, each party shall keep confidential, and other than as provided herein shall not use or disclose, directly or indirectly, any trade secrets, confidential or proprietary information, or any other knowledge, information, documents or materials, owned, developed or possessed by the other party, whether in tangible or intangible form, the confidentiality of which such other party takes reasonable measures to protect ("Confidential Information"). Neither CFFT nor Vertex will use the other party's Confidential Information except as expressly permitted in this Agreement

(a) Each party shall take any and all lawful measures to prevent the unauthorized use and disclosure of the other party's Confidential Information, and to prevent unauthorized persons or entities from obtaining or using that Information.

(b) Each party will refrain from directly or indirectly taking any action which would constitute or facilitate the unauthorized use or disclosure of the other party's Confidential Information. Each party may disclose that Information to its officers, employees and agents, to authorized licensees and sublicensees, and to subcontractors in connection with the development or manufacture of Drug Candidates, Drug Product Candidates or Drug Products, to the extent necessary to enable such parties to perform their obligations hereunder or under the applicable license, sublicense or subcontract, as the case may be; provided, that such officers, employees, agents, licensees, sublicensees and subcontractors have entered into appropriate confidentiality agreements for secrecy and non-use of such Confidential Information which by their terms shall be enforceable by injunctive relief at the instance of the disclosing party.

(c) Each party shall be liable for any unauthorized use and disclosure of the other party's Confidential Information by its officers, employees and agents and any such sublicensees and subcontractors.

6.2 Exceptions.

Notwithstanding the foregoing, the provisions of Section 6.1 hereof shall not apply to Confidential Information which the receiving party can conclusively establish:

(a) has entered the public domain without such party's breach of any obligation owed to the disclosing party;

(b) is permitted to be disclosed by the prior written consent of the disclosing party;

(c) has become known to the receiving party from a source other than the disclosing party, other than by breach of an obligation of confidentiality owed to the disclosing party;

(d) is disclosed by the disclosing party to a Third Party without restrictions on its disclosure;

(e) is independently developed by the receiving party without breach of this Agreement; or

(f) is required to be disclosed by the receiving party to comply with applicable laws or regulations, to defend or prosecute litigation or to comply with governmental regulations, provided that the receiving party provides prior written notice of such disclosure to the disclosing party and takes reasonable and lawful actions to avoid or minimize the degree of such disclosure.

Either Vertex or CFFT may at any time, by notice in writing to the other party, waive any or all of the confidentiality obligations to which the other party is subject hereunder, for any length or time or with respect to any specific information.

6.3 Publicity.

The parties will agree upon the timing and content of any initial press release or other public communications relating to this Agreement and the transactions contemplated herein.

(a) Except to the extent already disclosed in that initial press release or other public communication, no public announcement concerning the terms of this Agreement or concerning the transactions described herein shall be made, either directly or indirectly, by Vertex or CFFT, except (i) as may be legally required by applicable laws, regulations, or judicial order, or (ii) if limited to the fact that the Research Program exists, that research is in progress, and its anticipated completion without first obtaining the approval of the other party and agreement upon the nature, text, and timing of such announcement, which approval and agreement shall not be unreasonably withheld.

(b) The party desiring to make any such public announcement shall provide the other party with a written copy of the proposed announcement in sufficient time prior to public release to allow such other party to comment upon such announcement, prior to public release.

6.4 Survival.

The provisions of this Article VI shall survive the termination of this Agreement and shall extend **[***]**.

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ARTICLE VII - PUBLICATION

Each of Vertex and CFFT reserves the right to publish or publicly present the results (the "Results") of the Research Program, subject to the following terms and conditions. The party proposing to publish or publicly present the Results (the "publishing party") will submit a draft of any proposed manuscript or speech to the other party (the "non-publishing party") for comments at least **[***]** prior to submission for publication or oral presentation. The non-publishing party shall notify the publishing party in writing **[***]** of receipt of such draft whether such draft contains (i) information of the non-publishing party which it considers to be confidential under the provisions of Article VI hereof, (ii) information that if published would have an adverse effect on a patent application covering the subject matter of this Agreement which the non-publishing party intends to file, or (iii) information which the non-publishing party reasonably believes would be likely to have a material adverse impact on the development or commercialization of a Drug Product Candidate. In any such notification, the non-publishing party shall indicate with specificity its suggestions regarding the manner and degree to which the publishing party may disclose such information. In the case of item (ii) above, the non-publishing party may request a delay and the publishing party shall delay such publication, for a period not exceeding **[***]**, to permit the timely preparation and filing of a patent application or an application for a certificate of invention on the information involved. In the case of item (i) above, no party may publish Confidential Information of the other party without its consent in violation of Article V of this Agreement. In the case of item (iii) above, if the publishing party shall disagree with the non-publishing party's assessment of the impact of the publication, then the issue shall be referred to the JSC for resolution. If the JSC is unable to reach agreement on the matter within thirty (30) days after such referral, the matter shall be referred by the JSC to the

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Chief Executive Officer of CFFT and the Chief Executive Officer of Vertex who shall attempt in good faith to reach a fair and equitable resolution of this disagreement. If the disagreement is not resolved in this manner within two (2) weeks of referral by the JSC as aforesaid, then the decision of the publishing party as to publication of any information generated by it, subject always to the confidentiality provisions of Article V hereof, shall be final, provided that such decision shall be exercised with reasonable regard for the interests of the non-publishing party. The parties agree that authorship of any publication will be determined based on the customary standards then being applied in the relevant scientific journal, and that appropriate credit will be acknowledged when the subject matter of a publication is derived in whole or in significant part from Vertex CF Technology or inventions licensed by CFFT pursuant to Section 9.1 of this Agreement. The parties will use their best efforts to gain the right to review proposed publications relating to the subject matter of the Research Program by consultants or contractors.

Notwithstanding the foregoing, Vertex intends to advance the body of general scientific knowledge of CF and its potential therapies, and to contribute to the identification of chemical tools as optimal scientific benchmarks, all in a manner consistent with its general scientific and commercial objectives in entering into the collaboration with CFFT to which this Agreement relates. In furtherance of that objective, Vertex would expect, after giving due consideration to the appropriate protection of intellectual property, to publish information in peer-reviewed scientific journals concerning its efforts under the Research Program, including chemical structural information about at least two Compounds. Vertex will include as co-authors of any such publication contributing CFFT personnel and consultants and other persons who would customarily be considered in that regard, including members of the JRC as appropriate. CFFT's financial contribution to the Research Program also will be acknowledged.

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This Article VII shall survive the termination of this Agreement for five (5) years from the date of such termination.

ARTICLE VIII - INDEMNIFICATION

8.1 Indemnification by Vertex.

Vertex will indemnify and hold CFFT and its Affiliates, and their employees, officers and directors harmless against any loss, damages, action, suit, claim, demand, liability, expense, bodily injury, death or property damage (a "Loss"), that may be brought, instituted or arise against or be incurred by such persons to the extent such Loss is based on or arises out of:

(a) the development, manufacture, use, sale, storage or handling of a Compound, a Development Candidate, a Drug Product Candidate or a Drug Product by VERTEX or its Affiliates or their representatives, agents, authorized licensees, sublicensees or subcontractors under this Agreement, or any actual or alleged violation of law resulting therefrom; or

(b) the breach by Vertex of any of its covenants, representations or warranties set forth in this Agreement; and

(c) provided however, that the foregoing indemnification shall not apply to any Loss to the extent such Loss is caused by the negligent or willful misconduct of CFFT or its Affiliates.

8.2 Indemnification by CFFT.

CFFT will indemnify and hold Vertex, and its Affiliates, and their employees, officers and directors harmless against any Loss that may be brought, instituted or arise against or be incurred by such persons to the extent such Loss is based on or arises out of:

(a) the development, manufacture, use, sale, storage or handling of a Compound, a Development Candidate, a Drug Product Candidate or a Drug Product by CFFT or its Affiliates or their representatives, agents, authorized licensees, sublicensees or subcontractors under this Agreement, or any actual or alleged violation of law resulting therefrom; or

(b) the breach by CFFT of any of its covenants, representations or warranties set forth in this Agreement; and

(c) provided that the foregoing indemnification shall not apply to any Loss to the extent such Loss is caused by the negligent or willful misconduct of Vertex or its Affiliates.

8.3 Claims Procedures.

Each Party entitled to be indemnified by the other Party (an "Indemnified Party") pursuant to Section 8.1 or 8.2 hereof shall give notice to the other Party (an "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any threatened or asserted claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom; provided:

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(a) That counsel for the Indemnifying Party, who shall conduct the defense of such claim or any litigation resulting therefrom, shall be approved by the Indemnified Party (whose approval shall not unreasonably be withheld) and the Indemnified Party may participate in such defense at such party's expense (unless (i) the employment of counsel by such Indemnified Party has been authorized by the Indemnifying Party; or (ii) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the defense of such action, in each of which cases the Indemnifying Party shall pay the reasonable fees and expenses of one law firm serving as counsel for the Indemnified Party, which law firm shall be subject to approval, not to be unreasonably withheld, by the Indemnifying Party); and

(b) The failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Agreement to the extent that the failure to give notice did not result in harm to the Indemnifying Party.

(c) No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the approval of each Indemnified Party which approval shall not be unreasonably withheld, consent to entry of any judgment or enter into any settlement which (i) would result in injunctive or other relief being imposed against the Indemnified Party; or (ii) does not include as an unconditional term thereof the giving by the claimant or plaintiff to such

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Indemnified Party of a release from all liability in respect to such claim or litigation.

(d) Each Indemnified Party shall furnish such information regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and shall be reasonably required in connection with the defense of such claim and litigation resulting therefrom.

ARTICLE IX— PATENTABLE INVENTIONS

9.1 Ownership.

All inventions made and all Know-How generated exclusively by either party or its Affiliates (directly or through others acting on its behalf) prior to and during the term of this Agreement relating to the Research Program shall be owned by the party making the invention or generating the Know-How claimed, or if such invention is made jointly (a "Joint Invention"), shall be owned jointly, all as determined in accordance with United States laws of inventorship; provided that, CFFT hereby grants to Vertex an exclusive (even as to CFFT worldwide) license to its rights in any Joint Invention and any CFFT invention resulting from the Research Program for the purposes specified in this Agreement.

9.2 Preparation.

Vertex shall take responsibility for the preparation, filing, prosecution and maintenance of all Vertex Patents, and any patents and patent applications claiming Joint Inventions, and CFFT shall take responsibility for the preparation, filing, prosecution and

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maintenance of all CFFT Patents. Vertex shall provide the JRC with periodic reports listing, by name, Patents filed by Vertex in the United States and other jurisdictions, along with a general summary of the claims made and the jurisdictions of filing.

9.3 Costs.

[***]

ARTICLE X — TERM AND TERMINATION

10.1 Term.

This Agreement will extend until the Research Termination Date as defined herein, unless earlier terminated by either party hereto in accordance with this Agreement, or unless extended by mutual agreement of the parties.

10.2 Termination of the Research Program by CFFT for Cause.

Upon written notice to Vertex, CFFT may at its sole discretion unilaterally terminate the Research Program and this Agreement upon the occurrence of any of the following events:

(a) Vertex shall materially breach any of its material obligations under this Agreement, and such material breach shall not have been remedied or material steps initiated to remedy the same to CFFT's reasonable satisfaction, within thirty (30) days after CFFT sends written notice of breach to Vertex; or

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(b) Vertex shall cease to function as a going concern by suspending or discontinuing its business for any reason except for interruptions caused by events of Force Majeure.

In the event of any valid termination under this Section 10.2, CFFT shall not be required to make any payments under Section 3.2 hereof which have not accrued prior to receipt by Vertex of the notice of breach referenced under Section 10.2(a) or receipt by Vertex of the notice of termination pursuant to Section 10.2(b), as the case may be.

10.3 Termination of the Research Program by Vertex for Cause.

Vertex may at its sole discretion terminate this Agreement upon written notice to CFFT upon the occurrence of the following event:

CFFT shall materially breach any of its material obligations under this Agreement and such material breach shall not have been remedied or material steps initiated to remedy the same to Vertex's reasonable satisfaction, within thirty (30) days after Vertex sends written notice of breach to CFFT.

10.4 General Effect of Termination.

(a) Except where explicitly provided elsewhere herein, termination of this Agreement for any reason, or expiration of this Agreement, will not affect: (i) obligations which have accrued as of the date of termination or expiration, and (ii) obligations and rights which, expressly or from the context thereof, are intended to survive termination or expiration of this Agreement. Without limitation, the following shall survive termination either indefinitely or for the

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period so stated: Section 2.9 (for the limited purposes of completing a Testing Request with respect to a Development Candidate after the Research Termination Date) and Articles III, V, VI, VII, VIII, IX, XI and XII.

(b) Upon termination or expiration of this Agreement, Vertex will retain exclusive rights to Vertex CF Technology and the inventions licensed to it by CFFT pursuant to Section 9.1 of this Agreement (including intellectual property), except CFFT shall hold those rights specified under Sections 10.5 and 10.6 hereof, as applicable.

10.5 CFFT Special Termination Rights.

CFFT at its sole discretion may exercise the following Special Termination Rights at or within the time period stated, before the Research Termination Date.

10.5.1 Termination after Program Designation. At any time after the Primary Program Designation Date referenced in Section 2.4 hereof, CFFT may request in writing (a "Selection Disagreement Notice") that Vertex reconsider its Primary Program choice and its primary focus on either Potentiators or Correctors. If Vertex does not elect by written notice to CFFT to amend its choice and select for the Primary Program the mode of action (i.e., Potentiator or Corrector), preferred by CFFT (the "Preferred CFFT Mode of Action"), then the Agreement will terminate effective sixty (60) days following receipt by Vertex of the Selection Disagreement Notice, unless that Notice is earlier withdrawn by CFFT by further notice in writing delivered to Vertex within sixty (60) days after receipt by Vertex of the Selection Disagreement Notice.

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10.5.2 Early Termination. At its sole discretion, CFFT may terminate this Agreement effective June 30, 2005, upon not less than sixty (60) days prior written notice to Vertex, (an "Early Termination Notice").

10.5.3 Alternate Program Termination. CFFT may by written notice delivered to Vertex (the "Alternate Program Termination Notice") elect to terminate the Alternate Program and all funding which under the Current Budget would have been allocated to the Alternate Program after the effective date of termination. Termination will be effective on the 30th day following receipt by Vertex of the Alternate Program Termination Notice (the "Alternate Program Termination Date"). Notwithstanding such Termination, CFFT will reimburse Vertex during the ninety (90) days following such Termination for all outsourced costs **[***]** From and after the date the Alternate Program Termination Notice is received by Vertex, CFFT will not be obligated to fund any other outsourcing costs allocated in the Current Budget to the Alternate Program. Funding for FTEs which are allocated to the Alternate Program may at Vertex's discretion, after consultation with CFFT, be allocated to provide additional FTE support for the Primary Program. The required minimum FTE level set forth in Section 4.1 hereof will be adjusted as appropriate to reflect termination of the Alternate Program as provided herein.

10.5.4 Upon the effective date of termination of this Agreement under Section 10.5.1 above, Vertex hereby grants to CFFT and its Affiliates an exclusive, worldwide license, with the right to sublicense, under the Vertex CF Technology to make, have made, use, have used, import, offer for sale, sell and have sold drug products in the Field for which the principal mode of action is the Preferred CFFT Mode of Action, and the license to Vertex of inventions

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pursuant to Section 9.1 of this Agreement regarding such Mode of Action shall terminate. In consideration of the foregoing license, CFFT will pay Vertex **[***]**.

10.5.5 In the event this Agreement is terminated by CFFT under Section 10.5.2 hereof, and in lieu of any other obligations (including royalty obligations under Section 5.3 hereof) owed by Vertex to CFFT hereunder except obligations that explicitly survive termination of this Agreement, Vertex shall pay CFFT **[***]**

10.5.6 In the event the Alternate Program is terminated by CFFT under Section 10.5.3 hereof, and Vertex thereafter sells a Drug Product in the Field which relies for its principal therapeutic effect in the Field on the mode of action which was the subject of the Alternate Program, then in lieu of the royalty obligation set forth in Section 5.3 hereof, Vertex will pay to CFFT **[***]**

10.5.7 For purposes of Section 10.5.5 and 10.5.6, a product shall constitute a Drug Product even though the notice for a Development Candidate specified in Section 1.11 has not been issued by Vertex.

10.6 Consequences of an Interruption.

10.6.1 For purposes of this Agreement, an "Interruption" shall be deemed to have occurred in any of the following circumstances:

(a) with respect to either the Primary Program or the Alternate Program, considered separately, if at any time after the Research Termination Date and before a Drug Product is achieved, Vertex or its Affiliates, licensees, sublicensees, assignees or partners (collectively, and for purposes of this Section

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10.6 only, "Vertex") either, as applicable, (i) ceases reasonable research efforts directed toward identification of a Development Candidate, or (ii) ceases reasonable development efforts with respect to a Development Candidate (if one has been designated by Vertex), for a period of more than 180 consecutive days, and CFFT delivers written notice (an "Interruption Notice") to Vertex stating that an Interruption under this Section 10.6 has occurred; provided that an Interruption will not be deemed to have occurred with respect to a Development Candidate unless Vertex commences reasonable development efforts with respect to another Development Candidate from the same Program, within

thirty (30) days after receipt of any such Interruption Notice and such development efforts continue uninterrupted for no less than three hundred sixty (360) days;

10.6.2 Upon the effective date of any Interruption under Section 10.6.1 above, the license granted to Vertex under Section 9.1 for any CFFT invention shall terminate with respect to the applicable Program described below, and the following license in favor of CFFT shall become effective:

(a) If the Program to which the Interruption relates involves the design of Compounds which are intended to act as Potentiators, then CFFT shall have an exclusive right **[***]** and with respect to those Compounds, CFFT shall have an irrevocable, exclusive worldwide license, with the right to sublicense, under the Vertex CF Technology to develop, manufacture, have manufactured, use, sell, offer to sell and import those Compounds in the Field.

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(b) If the Program to which the Interruption relates involves the design of Compounds which are intended to act as Correctors, then CFFT shall have an exclusive right **[***]** and with respect to those Compounds, CFFT shall have an irrevocable, exclusive worldwide license, with the right to sublicense, under the Vertex CF Technology to develop, manufacture, have manufactured, use, sell, offer to sell and import those Compounds in the Field.

(c) In lieu of any other obligation owed by CFFT to Vertex pursuant to this Agreement, except obligations that explicitly survive termination of this Agreement, CFFT shall pay Vertex **[***]**

(d) In connection with either or both of the foregoing licenses, Vertex will deliver to CFFT the Termination Know-How Package associated with the Program to which the license relates expeditiously upon the occurrence of an Interruption.

(e) For purposes of CFFT's compound selection right under subsection (a) or (b) above, the classification of a particular Compound as a Potentiator or a Corrector will be determined as specified in the respective definitions of those terms which are set forth in Article I hereof.

10.7 Refused Program Extension.

If (a) Vertex proposes a Research Program Extension under Section 2.9 hereof which is a "Qualifying Extension Proposal" as defined below: and

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(b) CFFT refuses that proposal and declines to continue funding of the relevant Program (a "Refused Program") as specified in the Qualifying Extension Proposal; and

(c) Vertex continues funding of the Refused Program for the proposed term, on a funding level for the proposed term at least equal to Vertex's share of the funding provided in the Qualified Extension Proposal and a Drug Product is thereafter sold by Vertex then the royalty otherwise payable to CFFT under Section 5.3 hereof with respect to any Development Candidate selected from the Refused Program by Vertex more than twelve (12) months after the Research Termination Date, shall be reduced **[***]** An extension of any efforts by Vertex pursuant to the foregoing shall be called a "Refused Program Extension."

For purposes of this Section 10.7, a "Qualifying Extension Proposal" shall mean, with respect to any Program, a proposed extension of that Program beyond the Research Termination Date (i) at an average annualized cost not greater than the level provided under the Current Budget in effect for the six month period immediately preceding the Research Termination Date with respect to that Program; (ii) on relevant terms substantially similar to those set forth in this Agreement; but (iii) with the aggregate funding commitment divided equally between Vertex and CFFT.

ARTICLE XI — REPRESENTATIONS AND WARRANTIES

11.1 Representations and Warranties of Vertex.

Vertex represents and warrants to CFFT that this Agreement has been duly executed and delivered by Vertex and constitutes the valid and binding obligation

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of Vertex, enforceable against Vertex in accordance with its terms except as enforceability may be limited by bankruptcy, fraudulent conveyance, insolvency, bankruptcy, reorganization, moratorium and other laws relating to or affecting creditors' rights generally and by

general equitable principles. The execution, delivery and performance of this Agreement have been duly authorized by all necessary action on the part of VERTEX, its officers and directors.:

11.2 Representations and Warranties of CFFT.

CFFT represents and warrants to Vertex that this Agreement has been duly executed and delivered by CFFT and constitutes the valid and binding obligation of CFFT, enforceable against CFFT in accordance with its terms except as enforceability may be limited by bankruptcy, fraudulent conveyance, insolvency, bankruptcy, reorganization, moratorium and other laws relating to or affecting creditors' rights generally and by general equitable principles. The execution, delivery and performance of this Agreement have been duly authorized by all necessary action on the part of CFFT, its officers and directors.

ARTICLE XII — DISPUTE RESOLUTION

12.1 Governing Law, and Jurisdiction.

This Agreement shall be governed and construed in accordance with the internal laws of The Commonwealth of Massachusetts.

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12.2 Dispute Resolution Process.

(a) General. Except as set forth in (b) below or as otherwise explicitly provided herein, in the event of any controversy or claim arising out of or relating to any provision of this Agreement, or the collaborative effort contemplated hereby, the parties shall, and either party may, initially refer such dispute to the JSC, and failing resolution of the controversy or claim within thirty (30) days after such referral, the matter shall be referred to the Chief Executive Officer of Vertex and the Chief Executive Officer of CFFT who shall, as soon as practicable, attempt in good faith to resolve the controversy or claim. If such controversy or claim is not resolved within sixty (60) days of the date of initial referral of the matter to the JSC, either party shall be free to initiate proceedings in any court having requisite jurisdiction.

(b) Third Party Referral. Any dispute or claim relating to the "Referral Matters" as defined below which the parties are unable to resolve pursuant to the other dispute resolution mechanisms provided in this Agreement (other than litigation) shall, upon the written request of one party delivered to the other party, be submitted to and settled by a panel of Third Parties (a "Third Party Panel") appointed by Vertex and CFFT as provided below. The "Referral Matter" shall consist solely of disagreements concerning whether a particular Compound has satisfied all of the applicable Development Candidate Criteria. Within thirty (30) days after delivery of the above-referenced written request, each party will appoint one person who is not an Affiliate of the party appointing that person, and

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who is knowledgeable in the areas of pharmaceutical science, business and commercial aspects of drug development and sale, or the clinical development of pharmaceuticals, to hear and determine the dispute. The two persons so chosen will select another impartial Third Party and their majority decision will be final and conclusive upon the parties hereto. If either party fails to designate its appointee within the thirty (30) day period referenced above, then the appointee who has been designated by the other party will serve as the sole member of the Third Party Panel and will be deemed to be the single, mutually approved party to resolve the dispute. Each party will bear its own costs in the Third Party Referral process, and the parties will split equally the costs of the Third Party Panel members. The Third Party Panel will, upon the request of either party, issue its final determination in writing.

ARTICLE XIII — MISCELLANEOUS PROVISIONS

13.1 Waiver.

No provision of this Agreement may be waived except in writing by both parties hereto. No failure or delay by either party hereto in exercising any right or remedy hereunder or under applicable law will operate as a waiver thereof, or a waiver of any right or remedy on any subsequent occasion.

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13.2 Force Majeure.

Neither party will be in breach hereof by reason of its delay in the performance of or failure to perform any of its obligations hereunder, if that delay or failure is caused by strikes, acts of God or the public enemy, riots, incendiaries, interference by civil or military authorities, compliance with governmental priorities for materials, or any fault beyond its control or without its fault or negligence.

13.3 Severability.

Should one or more provisions of this Agreement be or become invalid, then the parties hereto shall attempt to agree upon valid provisions in substitution for the invalid provisions, which in their economic effect come so close to the invalid provisions that it can be reasonably assumed that the parties would have accepted this Agreement with those new provisions. If the parties are unable to agree on such valid provisions, the invalidity of such one or more provisions of this Agreement shall nevertheless not affect the validity of the Agreement as a whole, unless the invalid provisions are of such essential importance for this Agreement that it may be reasonably presumed that the parties would not have entered into this Agreement without the invalid provisions.

13.4 Government Acts.

In the event that any act, regulation, directive, or law of a country or its government, including its departments, agencies or courts, should make impossible or prohibit, restrain, modify or limit any material act or obligation of CFFT or Vertex under this Agreement, the party, if any, not so affected, shall have the right, at its option, to suspend or terminate this Agreement as to such country, if good faith negotiations between the parties to make such

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modifications therein as may be necessary to fairly address the impact thereof, are not successful after a reasonable period of time in producing mutually acceptable modifications to this Agreement.

13.5 Assignment.

This Agreement may not be assigned or otherwise transferred by either party without the prior written consent of the other party; provided, however, that either party may assign this Agreement, without the consent of the other party, (i) to any of its Affiliates, if the assigning party guarantees the full performance of its Affiliates' obligations hereunder, or (ii) in connection with the transfer or sale of all or substantially all of its assets or business or in the event of its merger or consolidation with another company. Any purported assignment in contravention of this Section 13.5 shall, at the option of the non-assigning party, be null and void and of no effect. No assignment shall release either party from responsibility for the performance of any accrued obligation of such party hereunder. This Agreement shall be binding upon and enforceable against the successor to or any permitted assignees from either of the parties hereto.

13.6 Counterparts.

This Agreement may be executed in duplicate, each of which shall be deemed to be original and both of which shall constitute one and the same Agreement.

13.7 No Agency.

Nothing herein contained shall be deemed to create an agency, joint venture, amalgamation, partnership or similar relationship between CFFT and Vertex. Notwithstanding

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any of the provisions of this Agreement, neither party to this Agreement shall at any time enter into, incur, or hold itself out to third parties as having authority to enter into or incur, on behalf of the other party, any commitment, expense, or liability whatsoever, and all contracts, expenses and liabilities in connection with or relating to the obligations of each party under this Agreement shall be made, paid, and undertaken exclusively by such party on its own behalf and not as an agent or representative of the other.

13.8 Notice.

All communications between the parties with respect to any of the provisions of this Agreement will be sent to the addresses set out below, or to such other addresses as may be designated by one party to the other by notice pursuant hereto, by prepaid, certified air mail (which shall be deemed received by the other party on the seventh business day following deposit in the mails), or by facsimile transmission, or other electronic means of communication (which shall be deemed received when transmitted), with confirmation by first class letter, postage pre-paid, given by the close of business on or before the next following business day:

if to CFFT, at:

Cystic Fibrosis Foundation Therapeutics Incorporated
6931 Arlington Road
Bethesda, Maryland 20814
Attention: Dr. Robert J. Beall, President

with a copy to: Kenneth I. Schaner, Esq.

Swidler Berlin Shereff Friedman, LLP

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3000 K Street, N.W., Suite 300
Washington, D.C. 20007

if to Vertex, at:

Vertex Pharmaceuticals Incorporated
130 Waverly Street
Cambridge, MA 02139-4211
Attention: President

with a copy to: Legal Department

Attention: General Counsel

13.9 Headings.

The paragraph headings are for convenience only and will not be deemed to affect in any way the language of the provisions to which they refer.

13.10 Authority.

The undersigned represent that they are authorized to sign this Agreement on behalf of the parties hereto. The parties each represent that no provision of this Agreement will violate any other agreement that such party may have with any other person or company. Each party has relied on that representation in entering into this Agreement.

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13.11 Entire Agreement.

This Agreement contains the entire understanding of the parties relating to the matters referred to herein, and may only be amended by a written document, duly executed on behalf of the respective parties.

13.12 Notice of Pharmaceutical Side-Effects.

During the term of this Agreement, the parties shall keep each other promptly and fully informed and will promptly notify appropriate authorities in accordance with applicable law, after receipt of information with respect to any serious adverse event (as defined by the ICH Harmonized Tripartite Guideline on Clinical Safety Data Management), directly or indirectly attributable to the use or application of Compounds, a Development Candidate, Bulk Drug Substance, a Drug Product Candidate, a Drug Product, and any other product for which royalties are payable under this Agreement.

13.13 Invoice Requirement.

Any amounts payable to Vertex hereunder shall be made within thirty days after receipt by CFFT, or its nominee designated for that purpose in advance by CFFT in writing to Vertex, of an invoice covering such payment.

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VERTEX PHARMACEUTICALS INCORPORATED

By: /s/ Kenneth S. Boger
Kenneth S. Boger
Title: Senior Vice President and General Counsel

CYSTIC FIBROSIS FOUNDATION THERAPEUTICS INCORORATED

By: /s/ Robert Beall
Title: President and CEO

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EXHIBIT 2.4

RESEARCH PLAN

Research Plan

for the

CFFT — Vertex Pharmaceuticals Collaboration

May 10, 2004

[***]

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EXHIBIT 4.2

INITIAL BUDGET FOR RESEARCH PROGRAM

Vertex/CFFT — CFTR Drug Discovery Budget

2004-2005

[***]

AMENDMENT NO. 2 to
RESEARCH, DEVELOPMENT AND COMMERCIALIZATION AGREEMENT,
DATED MAY 24, 2004, by and between VERTEX PHARMACEUTICALS INCORPORATED and CYSTIC FIBROSIS FOUNDATION THERAPEUTICS INCORPORATED

This Amendment No. 2 (the "Second Amendment") is made as of January 1, 2006 (the "Effective Date") by and between Vertex Pharmaceuticals Incorporated, a Massachusetts corporation with its principal offices at 130 Waverly Street, Cambridge, Massachusetts 02139-4242 ("Vertex"), and Cystic Fibrosis Foundation Therapeutics Incorporated, a Delaware corporation with its principal offices at 6931 Arlington Road, Bethesda, Maryland 20814 ("CFFT").

This Second Amendment amends the Research, Development and Commercialization Agreement, dated May 24, 2004, by and between Vertex and CFFT (the "Existing Agreement"), as amended by Amendment No. 1 to the Existing Agreement, dated January 6, 2006, by and between Vertex and CFFT (the "First Amendment"). Any reference herein to the "Existing Agreement, as amended", refers to the Existing Agreement and the First Amendment, unless the context otherwise requires. Vertex and CFFT are referred to herein individually as a "Party" and collectively as the "Parties."

Background

In 1998, CFFT made an award to Aurora Biosciences Corporation ("Aurora") to conduct a feasibility study using high throughput screening for cystic fibrosis targets. On May 19, 2000, CFFT selected and provided support for Aurora to conduct high throughput screening with respect to the cystic fibrosis transmembrane conductance regulator ("CFTR") target identified by CFFT. Since that time, Aurora, and then after its merger into Vertex, Vertex, have been

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conducting a research program with CFFT's support aimed at identification and design of "Potentiator" and "Corrector" compounds, both of which are directed as a principal mode of therapeutic action at modulation of the biological effect of CFTR in different ways and with different anticipated results.

On May 24, 2004, the Parties executed the Existing Agreement. The Existing Agreement contemplated that during the course of the research program, Vertex, with CFFT's agreement, would select either the Potentiator or the Corrector approach as its Primary Program (as defined in the Existing Agreement), to which a majority of resources under the research program would be directed, and the other approach would be designated as an Alternative Program (as defined in the Existing Agreement), to which the balance of resources would be directed.

In 2005, with the concurrence of CFFT, Vertex selected the Potentiator approach as the Primary Program, and designated a certain Potentiator Compound ("VX-770") as a Development Candidate under the terms of the Existing Agreement.

The Parties believe that it may be possible to create Corrector Compounds of significant potential value as therapeutics. To further that effort, on January 6, 2006, the Parties executed the First Amendment. Among other things, the First Amendment provided for continued funding for research relating to Corrector Compounds.

In connection with the First Amendment, the Parties executed a Term Sheet (the "Term Sheet") outlining the financial terms upon which CFFT might consider funding for the accelerated development of Potentiator Compounds.

This Second Amendment is intended to set forth the Parties' agreement with respect to additional funding for the accelerated development of Potentiator Compounds, and to amend the Existing Agreement and the First Amendment accordingly.

Amendment

In consideration of the mutual covenants set forth in this Second Amendment, and other good and valuable consideration, the receipt of which is hereby acknowledged, the Parties agree as follows:

Section 1. Acceleration Funding Agreement

This Second Amendment is intended to constitute the Potentiator Funding Agreement contemplated by the First Amendment (referenced as the "Acceleration Funding Agreement" in the Term Sheet). Capitalized terms not otherwise defined in this Second Amendment shall have the meaning ascribed to them in the Existing Agreement, as amended. If specific provisions of this Second Amendment are inconsistent with specific provisions of the Existing Agreement, as amended, the provisions of this Second Amendment, with respect to the subject matter of this Second Amendment, shall control. Otherwise, the Existing Agreement, as amended, shall continue to be applicable.

Section 2. Development and Development Funding.

2.1. Potentiator JDC Organization and Operation.

2.1.1 Potentiator JDC Membership. As soon as practicable after the Effective Date, Vertex will establish a Potentiator Joint Development Committee (the "Potentiator JDC") consisting of not fewer than 8 members, as may be determined from time to time by the Potentiator JDC. The Potentiator JDC shall continue to function until FDA approval of a Potentiator Drug Product. During the period ending December 31, 2008, the Potentiator JDC shall include an equal number of representatives designated by each of Vertex and CFFT. Thereafter, CFFT shall be entitled to four (4) representatives on the Potentiator JDC. In addition to members appointed by CFFT, the Potentiator JDC is expected to have members from the

various functional groups (*e.g.*, research, preclinical safety, clinical, regulatory, marketing) that are or will be expected to be involved from time to time in development and launch of VX-770 or any other Potentiator Backup Compound that is substituted for VX-770 (collectively VX-770 and such Potentiator Backup Compounds are referred to hereinafter as "VX-770"). Vertex will appoint the Potentiator JDC Chair. In addition to Potentiator JDC members, attendees of Potentiator JDC meetings may include such Vertex or CFFT representatives as may be required for presentation to or discussion with the Potentiator JDC from time to time.

2.1.2 Potentiator JDC Operation. The Potentiator JDC will be the principal organization through which the development of VX-770 is planned and evaluated, subject to appropriate review and approval at senior management levels as required by Vertex from time to time. The Potentiator JDC will be responsible for preparation and implementation of the development plan described in Section 2.1.3, below, with respect to VX-770. The Potentiator JDC will typically meet at least quarterly, depending on the level of current development activity. Each of Vertex and CFFT shall have one vote on the Potentiator JDC. The objective of the Potentiator JDC shall be to reach agreement by consensus on all matters overseen by the Potentiator JDC. However, except as hereinafter provided, in the event of a deadlock with respect to any action, the vote of the Potentiator JDC Chair rendered after reasonable and open discussion among the members of the Potentiator JDC shall be final and controlling.

2.1.3 Development Plan. The Potentiator JDC shall review the implementation of an overall development plan for VX-770. The development plan shall describe the proposed clinical trial activities, non-clinical development activities, and supply and manufacturing activities for VX-770. The initial development plan considered by Vertex for VX-770 (the "VX-770 Benchmark Potentiator Development Plan") and the development plan currently being

implemented by Vertex (the "VX-770 Accelerated Potentiator Development Plan"), are attached hereto as *Exhibits 2.1.3A* and *2.1.3B*, respectively. The VX-770 Accelerated Potentiator Development Plan reflects a significant acceleration into 2006 or 2007 of certain development activities previously planned for later in the development process, with the objective of significantly accelerating the time to NDA filing if VX-770 is successful. The VX-770 Accelerated Potentiator Development Plan will be reviewed and may be further refined from time to time by the Potentiator JDC, based in part on data generated in early pre-clinical and clinical trials. However, the Parties intend that separate clinical trails will be conducted for the G5551D and dF508 CF patients, as provided in *Exhibit 2.1.3B*, and to that end the IND which Vertex filed on March 14, 2006 provides for separate Phase I clinical trials targeting G5551D and dF508 CF patient groups. The actual design of those Phase I and any further clinical trails may be influenced by FDA feedback, clinical and nonclinical trial data and other scientific and medical information. Any change in the clinical plans will be reviewed by Vertex with the Potentiator JDC with the aim of reaching consensus before being implemented.

2.1.4 Meeting Materials. The Potentiator JDC will consider all information that is material to an assessment of the status, direction and progress of the development program for VX-770, including clinical trial protocols, a summary of the IND package, enabling animal toxicity data reports, clinical trial protocols, clinical trials final reports, summary data and reports. The Potentiator JDC will review progress reports prepared by Vertex, which shall be submitted to the Potentiator JDC prior to each meeting and which shall include a summary in written text of progress made during the preceding three month period under the VX-770 Accelerated Potentiator Development Plan. The chemical structure of VX-770 will be disclosed at the written request of CFFT to one CFFT employee reasonably acceptable to Vertex who is a

JDC member and who executes a customary form of confidentiality agreement directly with Vertex, undertaking to maintain the chemical structure in confidence. Vertex will also disclose the chemical structure of VX-770 to CFFT's chemistry advisors to whom it has previously disclosed the structure, under confidential disclosure agreements previously executed with each such advisor, provided that such agreements explicitly cover the additional disclosure or are appropriately modified to that effect. The Potentiator JDC Chair will ensure that minutes are prepared and distributed to each member of the Potentiator JDC after each meeting. Subject to the restrictions on disclosure of chemical structures set forth above, CFFT's representatives on the Potentiator JDC will receive all documents and information distributed or communicated to members of the Potentiator JDC. In any event, all information presented to the JDC or otherwise disclosed to CFFT by or at the direction of Vertex shall be deemed confidential to Vertex and subject to the confidentiality provisions of the Existing Agreement.

2.2 Therapeutic Development Network. CFFT will use its good faith efforts to foster discussions between the Therapeutic Development Network ("TDN") and Vertex so that the TDN may enter into appropriate agreements with Vertex to provide to Vertex resources and expertise of the TDN to support development efforts for VX-770.

2.3 Budget and Funding. *Exhibit 2.3A* contains a summary "Benchmark Potentiator Budget" that sets forth the estimated costs of the VX-770 Benchmark Potentiator Development Plan originally proposed by Vertex, and a further summary budget, the "Accelerated Potentiator Budget," that sets forth the estimated costs of the VX-770 Accelerated Potentiator Development Plan, in each case for the period commencing January 1, 2006 and ending December 31, 2007 (the "CFFT Accelerated Potentiator Funding Term"). A more detailed budget for the VX-770 Accelerated Potentiator Development Plan for 2006, based on

Vertex's most current activity and cost assumptions, is also attached as *Exhibit 2.3B*. Vertex will provide comparable budgetary information for 2007 as soon as it becomes available in late 2006. CFFT agrees to bear $13.3 million of the actual Development Costs (as defined below) for VX-770 under the VX-770 Accelerated Potentiator Development Plan; provided that **(i)** CFFT's aggregate funding obligation (the "CFFT Accelerated Potentiator Funding") shall not exceed 50% (fifty percent) of that portion of Vertex's Development Costs incurred during the CFFT Accelerated Potentiator Funding Term that are in excess of the aggregate Development Costs summarized in the Benchmark Potentiator Budget for the CFFT Accelerated Potentiator Funding Term; and **(ii)** CFFT's

funding obligation for the year 2006 shall not exceed $7.9 million unless CFFT otherwise agrees in writing. The budget for the VX-770 Accelerated Potentiator Development Plan may be revised by the Potentiator JDC from time to time; except that the amount of CFFT Accelerated Potentiator Funding shall not be increased without the written consent of CFFT. For purposes of this Amendment 2, the dates specified in Section 4.3 of the Existing Agreement for Vertex to provide CFFT with an accounting of all internal FTE's and outsource costs will be changed to no later than January 31, 2007 and 2008, respectively; and Vertex shall exercise its good faith efforts to furnish CFFT with such accounting as early in January as is possible. Funding will be reviewed by Vertex and CFFT at the end of each calendar year during the CFFT Accelerated Potentiator Funding Term, and any amounts paid by CFFT during the calendar year that are in excess of the CFFT Accelerated Potentiator Funding amounts required under this Second Amendment will be credited against CFFT's 2007 funding obligations hereunder (if paid on account of activities during 2006), or promptly refunded by Vertex (if paid on account of activities during 2007).

For the purpose of this Second Amendment, "Development Costs" shall mean all internal and external costs associated with the VX-770 Accelerated Potentiator Development Plan, including but not limited to all **(i)** costs and expenses invoiced by third parties, whether for goods or services associated with the development plan, and **(ii)** FTE costs of Vertex development scientists and management personnel with respect to time properly allocated to the VX-770 Accelerated Potentiator Development Plan activities. Such internal costs may include, but not be limited to, **(a)** laboratory work; **(b)** regulatory planning, oversight and review; **(c)** quality assurance activities; **(d)** pharmaceutical supply chain activities; **(e)** negotiations with clinical trial sites, institutional review boards, and suppliers; **(f)** development plan research; **(g)** program management activities; **(h)** intellectual property creation and protection; **(i)** holding scientific discussions; **(j)** traveling to and attending appropriate seminars and symposia; and **(k)** carrying out Potentiator JDC activities, provided, however, costs associated with (i) and (j) above shall only be allocated to the VX-770 Accelerated Potentiator Development Plan activities if they are attributable to personnel who spent more than half of their working time on such activities. Activities included in calculating FTE's shall not include negotiation of this Second Amendment or modifications or extensions of this Second Amendment or the Existing Agreement, as amended, or administrative activities such as accounting, invoicing, personnel related activities or the like. FTEs allocated to activities under the VX-770 Accelerated Potentiator Development Plan shall be accounted for at the rate of $325,000 per FTE per annum. Payments for internal and external costs shall be invoiced and paid pursuant to Section 4.3 of the Existing Agreement.

At its sole discretion, and except as to amounts previously due to Vertex, CFFT shall have the right to terminate the CFFT Accelerated Potentiator Funding Term and CFFT's funding obligation hereunder effective December 31, 2006 or June 30, 2007 upon not less than sixty (60)

days' prior written notice to Vertex; *provided, however*, that in the event of such a termination, the provisions of this Second Amendment will cease to apply effective as of the date of such termination (and, with respect to provisions of the Existing Agreement, as amended, which were otherwise modified or amended by the provisions of this Second Amendment, such provisions shall be read without regard to any amendment or modification set forth in this Second Amendment).

Section 3. Amendments to Corrector Contributions and Royalty Rates.

3.1 Corrector Contributions. Effective as of January 6, 2006, Section 4.2 of the Existing Agreement, as amended, is further amended as follows: the text in Section 4.2 up to and including the Initial Corrector Budget Chart is deleted, and, in its place the following is inserted:

CFFT will fund seventy percent (70%) of the Initial Corrector Budget and Vertex will fund thirty percent (30%) of the Initial Corrector Budget. Based on the approved Initial Corrector Budget of $27.3 million (which includes the $675,000 of Potentiator research funding referenced in the Research Plan), CFFT will make the payments to Vertex specified below during the specified periods.

	INITIAL CORRECTOR BUDGET (millions $)	
Research Period	**Aggregate Budget Amount**	**CFFT Financial Commitment**
January 1, 2006 — December 31, 2006	*$ 12.6M*	*$ 8.82M*
January 1, 2007 — March 31, 2008	*$ 14.7M*	*$ 10.29M*

The text in the balance of Section 4.2 of the First Amendment (*i.e.*, following the Initial Corrector Budget Chart) remains unchanged.

3.2 Royalty Rates. Section 5.3.1 of the Existing Agreement is amended, as of the Effective Date, as follows:

(i) The number "4%" referenced in the royalty table appearing in Section 5.3.1 of the Existing Agreement, as amended, is deleted, and in its place shall be inserted *"6%"*;

(ii) The paragraph following the royalty table in Section 5.3.1 of the Existing Agreement, as amended, is deleted; and in its place, the following is inserted:

Following the year in which cumulative Net Sales of all Drug Products in the Field first exceed $1 billion, measured from the date of the First Commercial Sale of any such Drug Products, (a) the royalty rate for the first $250 million in annual Net Sales of such Drug Products in subsequent years shall be increased from six percent (6%) to eight percent (8%); and (b) the calculation of Net Sales for any calendar

year thereafter for purposes of computing the royalties referenced in Section 5.3.1, shall include all Net Sales of all Drug Products during that year, for use in the Field, under the Existing Agreement, as amended to and including this Amendment.

(iii) Section 5.3.2 of the Existing Agreement, as amended, is redesignated as Section 5.3.3, and the following new Section 5.3.2 is inserted:

5.3.2 Additional Royalty. *Vertex shall pay an additional royalty to CFFT in an amount equal to twice the amount of actual CFFT Accelerated Potentiator Funding paid to Vertex under this Second Amendment, in two installments as set forth below. The additional royalty is assumed for illustrative purposes to be based on actual CFFT Accelerated Potentiator Funding of $13.3 million, and based on that assumption a total of $26.6 million would be payable in the following amounts, in each case within thirty days after the first quarter in which cumulative Net Sales of Potentiator Drug Products have reached the following levels:*

Cumulative Net Sales	Additional Royalty Amount
$ 100 million	*$ 13.3 million*
$ 200 million	*$ 13.3 million*
Total:	*$ 26.6 million*

For example, if the first Potentiator Drug Product is launched by Vertex on October 1, 2009, and Cumulative Net Sales of that Drug Product reach $100 million by March 31, 2010, an Additional Royalty Amount of $13.3 million would then be payable to CFFT in addition to any other royalties

due and payable under the Agreement. Thereafter, if Cumulative Net Sales of Potentiator Drug Product reach $200 million on September 30, 2010, a further Additional Royalty Amount of $13.3 million would be payable to CFFT.

(iv) The following new Section 5.3.4 is inserted:

Net Sales under this Section 5.3 shall not in any event include any Net Sales of Drug Products that are the subject of the royalty obligations set forth in the Section 5.3.3 or in Section 10.5.5.

Section 4. Existing Agreement Ratified.

In all other respects, the Existing Agreement, as amended, is hereby ratified and confirmed.

[Signature Page Follows]

In witness whereof, the Parties hereto have executed this Agreement as of the day and year first above written.

VERTEX PHARMACEUTICALS INCORPORATED	**CYSTIC FIBROSIS FOUNDATION THERAPEUTICS INCORPORATED**
By: /s/ Kenneth S. Boger	By: /s/ Robert Beall
Title: Senior VP and General Counsel	Title: President/CEO
Date: 15 Mar 06	Date: March 16, 2006

Exhibit 2.1.3A

[Gant chart setting forth benchmark Development Plan.]

Exhibit 2.1.3B

[Gant chart setting forth accelerated Development Plan.]

Exhibit 2.3B

Funding of VX-770 Development

Budget Summary: The budget for the VX-770 Benchmark Potentiator Development Plan ("Benchmark Potentiator Budget") attached hereto as *Exhibit 2.1.3A* is as follows:

	2006	2007
Benchmark Budget		
Internal	$ 6.34 M	$ 7.54 M
External	4.64 M	5.19 M
Total	$ 10.98M	$ 12.73M

The budget for the VX-770 Accelerated Potentiator Development Plan (the "Accelerated Potentiator Budget") attached hereto as *Exhibit 2.1.3B* is as follows:

	2006	2007
Accelerated Budget		
Internal	$ 13.18 M	$ 13.82 M
External	13.73 M	27.06 M
Total	$ 26.91 M	$ 40.88 M

[Chart setting forth Detailed Accelerated Potentiator Budget.]

Exhibit 31.3

CERTIFICATION

I, Matthew W. Emmens, certify that:

1. I have reviewed this Amendment No. 1 to the Quarterly Report on Form 10-Q/A of Vertex Pharmaceuticals Incorporated; and

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: August 19, 2011

/s/ MATTHEW W. EMMENS

Matthew W. Emmens
Chief Executive Officer
(principal executive officer)

Exhibit 31.4

CERTIFICATION

I, Ian F. Smith, certify that:

1. I have reviewed this Amendment No. 1 to the Quarterly Report on Form 10-Q/A of Vertex Pharmaceuticals Incorporated; and

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

Date: August 19, 2011

/s/ IAN F. SMITH

Ian F. Smith
Executive Vice President and Chief Financial Officer
(principal financial officer)