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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

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

Date of Report (Date of earliest event reported): March 6, 2007

Idera Pharmaceuticals, Inc.

(Exact name of Registrant as Specified in Charter)

Delaware	001-31918	04-3072298
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)
345 Vassar Street, Cambridge, Massachusetts		02139
(Address of Principal Executive Offices)		(Zip Code)

Registrant's telephone number, including area code: (617) 679-5500

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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Item 1.01. Entry into a Material Definitive Agreement

On December 11, 2006, Idera Pharmaceuticals, Inc. ("Idera") announced that it had entered into an Exclusive License and Research Collaboration Agreement (the "Collaboration Agreement") with Merck & Co., Inc. A description of the Collaboration Agreement is contained in the Current Report on Form 8-K filed by Idera with the Securities and Exchange Commission on December 13, 2006. The Collaboration Agreement is being filed as an exhibit to this Current Report on Form 8-K.

Item 2.02. Results of Operation and Financial Condition.

On March 6, 2007, Idera announced its financial results for the quarter and year ended December 31, 2006. The full text of the press release issued in connection with the announcement is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

The information in Item 2.02 of this Form 8-K (including Exhibit 99.1) is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

10.1†	Exclusive License and Research Collaboration Agreement dated December 8, 2006 by and between Merck & Co., Inc. and Idera Pharmaceuticals, Inc.
99.1*	Press release issued by Idera Pharmaceuticals, Inc. on March 6, 2007.

† Confidential treatment has been requested as to certain portions of this Exhibit. Such portions have been omitted and filed separately with the Securities and Exchange Commission.

* Exhibit 99.1 relating to Item 2.02 shall be deemed to be furnished, and not filed.

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SIGNATURE

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

IDERA PHARMACEUTICALS, INC.

Date: March 6, 2007

By: /s/ Robert G. Andersen
Robert G. Andersen
Chief Financial Officer and Vice President of Operations

Exhibit 10.1

Confidential Materials omitted and filed separately with the

Securities and Exchange Commission. Asterisks denote omissions.

EXCLUSIVE LICENSE AND RESEARCH COLLABORATION AGREEMENT

BY AND BETWEEN

MERCK & CO., INC.

AND

IDERA PHARMACEUTICALS, INC.

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SCHEDULES

EXECUTION COPY

EXCLUSIVE LICENSE AND RESEARCH COLLABORATION AGREEMENT

THIS AGREEMENT (this "Agreement"), effective as of December 8, 2006 (the "Effective Date"), by and between Merck & Co., Inc., a corporation organized and existing under the laws of New Jersey ("Merck"), and Idera Pharmaceuticals, Inc., a corporation organized and existing under the laws of Delaware ("Idera").

RECITALS:

WHEREAS, Idera has expertise and possesses Idera Technology (as hereinafter defined) relating to certain Toll-like Receptor agonists;

WHEREAS, Merck has expertise and possesses Merck Technology (as hereinafter defined) relating to the research, development, manufacturing and marketing of Vaccines and other related biological products;

WHEREAS, Merck and Idera desire to enter into a research collaboration to develop Collaboration Compounds (as hereinafter defined) for use in Merck's Vaccines upon the terms and conditions set forth herein;

WHEREAS, Merck desires to obtain a license upon the terms and conditions set forth herein and Idera desires to grant such a license; and

WHEREAS, Merck and Idera have entered into a Stock Purchase Agreement and Registration Rights Agreement as of the Effective Date;

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the Parties hereby agree as follows:

1. DEFINITIONS

Unless specifically set forth to the contrary herein, the following terms, whether used in the singular or plural, shall have the respective meanings set forth below:

1.1 "ACT" shall mean, as applicable, the United States Federal Food, Drug and Cosmetic Act, 21 U.S.C. Sections 301 et seq., and/or the Public Health Service Act, 42 U.S.C. Sections 262 et seq., as such may be amended from time to time.

1.2 "ADJUVANT" shall mean a compound, complex or other agent that enhances the immune response to an Antigen or Antigens and is intended to act as an agonist to TLR 7, TLR 8, TLR 7/8 and/or TLR 9.

1.3 "AFFILIATE" shall mean, with respect to a Person, any corporation or business entity of which more than fifty percent (50%) of the securities or other ownership interests representing the equity, the voting stock or general partnership interest are owned, controlled or held, directly or indirectly, by such Person.

1.4 "ALZHEIMER'S DISEASE FIELD" shall mean the use of Evaluation Collaboration Compound(s) and Selected Collaboration Compound(s) as an Adjuvant contained in or administered in conjunction with any prophylactic and/or therapeutic Vaccine(s) for the prevention and/or treatment of Alzheimer's disease.

1.5 "ANTIGEN" shall mean any ingredient that either alone or as part of a Vaccine elicits a specific immune response to itself and/or to a pathogenic micro-organism or a human self molecule, including, without limitation, live attenuated or modified micro-organisms, whole killed micro-organisms, proteins, polysaccharides, polysaccharide conjugates, peptides, recombinant proteins, glycolipids and fragments thereof.

1.6 "CALENDAR QUARTER" shall mean the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30 and December 31.

1.7 "CALENDAR YEAR" shall mean each successive period of twelve (12) months commencing on January 1 and ending on December 31.

1.8 "CHANGE OF CONTROL" shall mean with respect to a Party: (i) the sale of all or substantially all of such Party's assets or business relating to this Agreement; (ii) the closing of a merger, reorganization or consolidation involving such Party in which the voting securities of such Party outstanding immediately prior thereto cease to represent at least fifty percent (50%) of the combined voting power of the surviving entity immediately after such merger, reorganization or consolidation; or (iii) a person or entity, or group of persons or entities, acting in concert to acquire more than [**] percent ([**]%) of the voting equity securities or management control of such Party.

1.9 "CLINICAL TRIAL" shall mean a Phase I Clinical Trial, Phase II Clinical Trial or Phase III Clinical Trial, as applicable.

1.10 "COLLABORATION COMPOUNDS" shall mean (a) any IMO provided by Idera to Merck under this Agreement, (b) any other IMO created, modified or developed by the Parties pursuant to the Research Program and (c) any improvement or enhancement to the IMOs described in (a) or (b).

1.11 "COMPETING PHARMA CHANGE OF CONTROL" means a Change of Control involving a

Person or group of Persons acting in concert (a) with annual worldwide sales of human pharmaceutical, vaccine and/or biological products greater than [**] Dollars ($[**]) or (b) having a market capitalization greater than [**] U.S. Dollars ($[**]) or (c) having an active clinical development or commercialization program for any prophylactic and/or therapeutic Vaccine for the prevention and/or treatment of Alzheimer's Disease, any type of cancer and/or any disease within the Infectious Disease Field.

1.12 "COMBINATION PRODUCT" shall mean, on a country by country basis, with respect to a given Product, a Product that contains one or more Antigens in addition to the Antigen(s) contained in the given Product at the time it achieves First Commercial Sale in such country. For example, if a given Product in a country, at the time it achieves First Commercial Sale contains Antigens A and B, a Combination Product with respect to such given Product in such country would be a Product that contains at least one other Antigen, in addition to Antigens A and B, and achieves First Commercial Sale in such country after the given Product has achieved First Commercial Sale.

1.13 "COMPETING PRODUCT" shall mean, with respect to a Product in a country, a Vaccine product that (a) contains a compound targeting the same TLR as the Adjuvant contained in the Product and

has received Marketing Authorization for the same Indication in a Field for which the Product has received Marketing Authorization in such country and (b) has safety and efficacy equivalent or materially similar to the Product and has or attains on a Calendar Year basis a market share of [**] percent ([**]%) or more in the country as measured by prescriptions or other similar information.

1.14 "CONTROL," "CONTROLS" OR "CONTROLLED BY" shall mean with respect to any item or right under Patent Rights, know-how or other intellectual property right or technology, the possession of (whether by ownership or license, other than pursuant to this Agreement), or the ability of a Party to grant access to, or a license or sublicense of, such item or right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party existing at the time such Party would be required hereunder to grant the other Party such access or license or sublicense.

1.15 "DATA PROTECTION" shall mean the exclusive right to reference data filed in a Marketing Authorization with a Regulatory Authority in such country for Selected Collaboration Compound or Product under a pharmaceutical law, regulation or any other governmental decree or order of such country within the Territory. For the purposes of clarity, such exclusive right to reference data shall exclude any party other than Merck or its Related Parties from referencing such data in such party's own regulatory filings for authorization to register or sell a generic product in such country filed with the Regulatory Authority.

1.16 "EMEA" shall mean the European Medicines Agency.

1.17 "EVALUATION COLLABORATION COMPOUND" shall have the meaning given such term in Section 2.8.1.

1.18 "EVALUATION CRITERIA" shall mean the criteria set forth in Schedule 1.18 attached hereto.

1.19 "FIELDS" shall mean the Oncology Field, the Infectious Disease Field and the Alzheimer's Disease Field, collectively.

1.20 "FILING" of an IND or NDA shall mean the acceptance by a Regulatory Authority of an IND or NDA for filing, if such a legally-recognized concept applies to filings in the applicable jurisdiction or, if such concept does not apply, the filing of the IND or NDA.

1.21 "FIRST COMMERCIAL SALE" shall mean, with respect to any Product, the first sale for end use or consumption of such Product in a country, excluding, however, any sale or other distribution for use in a Clinical Trial.

1.22 "FULL TIME EQUIVALENT" or "FTE" shall mean the equivalent of a full-time scientist's work time over a twelve (12) month period (including normal vacations, sick days and holidays), provided that a single person cannot account for more than one FTE over the course of any Calendar Year. For example, a single person cannot equal one FTE plus a portion of an additional FTE resulting in more than one FTE (i.e. 1.5 FTE's) in a given Calendar Year, regardless of the aggregate number of hours worked by such person during that Calendar Year. The portion of an FTE year devoted by a scientist to the Research Program shall be determined by dividing the number of full days during any twelve-month period devoted by such employee to the Research Program by the total number of working days during such twelve-month period.

1.23 "FTE RATE" shall mean the amount Merck will pay Idera over a consecutive twelve (12) month period during the Research Program Term to support one (1) Idera FTE dedicated to the Research Program. The FTE Rate shall be [**] dollars (USD $[**]) per FTE. The FTE Rate shall include all personnel, equipment, reagents and all other expenses including support staff and overhead for or associated with an FTE.

1.24 "GLP" or "GOOD LABORATORY PRACTICE" shall mean the applicable then-current standards for laboratory activities for pharmaceuticals or biologicals, as set forth in the Act and any regulations or guidance documents promulgated thereunder, as amended from time to time, together with any similar standards of good laboratory practice as are required by any Regulatory Authority in the country in which the laboratory activities are conducted.

1.25 "IDERA BACKGROUND PATENT RIGHTS" shall mean any and all Patent Rights Controlled by Idera on the Effective Date that claim or cover (a) the composition of matter or method of use of an Evaluation Collaboration Compound or a Selected Collaboration Compound or (b) Idera Materials, and any divisionals, continuations, continuations-in-part, reissues, renewals, substitutions, registrations, re-examinations, revalidations, supplementary protection certificates, pediatric exclusivity periods, any other patent term extensions and exclusivity periods and the like of any such Patent Rights, and any and all U.S. and foreign equivalents of the foregoing. As of the Effective Date, the Idera Background Patent Rights include, without limitation, the Patent Rights set forth on Schedule 1.25.

1.26 "IDERA FIELD" shall mean the use of Non-Selected Collaboration Compounds for any and all purposes outside of the Fields.

1.27 "IDERA INFORMATION AND INVENTIONS" shall mean (a) all information and inventions, including, but not limited to, all discoveries, findings, improvements, processes, methods, protocols, formulas, data, composition of matter, article of manufacture, know-how and trade secrets, that is conceived and/or reduced to practice as a result of the Research Program, whether or not patentable, that is developed or invented solely by employees of Idera or its Affiliates or other Persons acting on their behalf (other than Merck, its Affiliates or other Persons acting on their behalf) and (b) Idera Oligonucleotide Inventions but shall exclude Merck Materials Inventions.

1.28 "IDERA KNOW-HOW" shall mean all information and materials, including but not limited to discoveries, improvements, processes, methods, protocols, formulas, data, inventions (including, without limitation, Idera Information and Inventions and Idera's rights in Joint Information and Inventions), know-how and trade secrets, patentable or otherwise, which during the term of this Agreement (i) are in the Control of Idera, (ii) are not generally known and (iii) are necessary or useful to Merck with respect to an Evaluation Collaboration Compound or Selected Collaboration Compound in the Fields, including without limitation, in connection with the Research Program and the research, development, manufacture, marketing, use or sale of Product in the Territory.

1.29 "IDERA MATERIALS" shall mean those IMOs to be provided by Idera as set forth on Schedule 1.29, which may be amended from time to time.

1.30 "IDERA OLIGONUCLEOTIDE INVENTIONS" shall mean all information and inventions, including, but not limited to, all discoveries, findings,

improvements, processes, methods, protocols, formulas, data, composition of matter, article of manufacture, know-how and trade secrets, that is conceived and/or reduced to practice as a result of the Research Program, whether or not patentable, that are solely related to the modification of, derivatives of, manufacture or use of immunomodulatory oligonucleotide structures which do not include Merck Technology, regardless of whether the

invention is conceived and/or reduced to practice (a) solely by employees of Idera or its Affiliates or other Persons acting on their behalf (other than Merck, its Affiliates or a Third Party acting on their behalf); (b) solely by employees of Merck or its Affiliates or other Persons acting on their behalf (other than Idera, its Affiliates or a Third Party acting on their behalf); or (c) jointly by employee(s) of Merck, its Affiliate or a Third Party acting on behalf of Merck or its Affiliate within the scope of the Research Program, on the one hand, and employee(s) of Idera, its Affiliate or a Third Party acting on behalf of Idera or its Affiliate within the scope of the Research Program, on the other hand.

1.31 "IDERA PATENT RIGHTS" shall mean any Idera Background Patent Rights and Idera Program Patent Rights.

1.32 "IDERA PROGRAM PATENT RIGHTS" shall mean any and all Patent Rights other than Idera Background Patent Rights, that (a) during the term of this Agreement are Controlled by Idera and claim or cover (i) the composition of matter or method of use of an Evaluation Collaboration Compound or a Selected Collaboration Compound or (ii) Idera Materials, Idera Information and Inventions or Joint Information and Inventions; or (b) claim or cover Idera Oligonucleotide Inventions. For avoidance of doubt, Idera Program Patent Rights shall not include any Patent Rights that claim or cover Merck Materials, including, without limitation, any modifications, derivatives, or methods of manufacture thereof.

1.33 "IDERA TECHNOLOGY" shall mean Idera Patent Rights, Idera Know-How, Idera Materials and Idera Information and Inventions.

1.34 "IMO" shall mean any and all immune modulatory oligonucleotides, the primary purpose of which is to induce or modulate an immune response and that are targeted to and intended to act as agonists of TLR 7, TLR 8, TLR 7/8 or TLR 9, as the case may be.

1.35 "IND" shall mean an Investigational New Drug application, Clinical Study Application, Clinical Trial Exemption, or similar application or submission for approval to conduct human clinical investigations filed with or submitted to a Regulatory Authority in conformance with the requirements of such Regulatory Authority.

1.36 "INDICATION" shall mean a separate and distinct disease or medical condition in humans which a Product is intended to treat and/or prevent and for which the Product has received Marketing Authorization.

1.37 "INFECTIOUS DISEASE FIELD" shall mean the use of Evaluation Collaboration Compound(s) and Selected Collaboration Compound(s) as an Adjuvant contained in or administered in conjunction with any prophylactic and/or therapeutic Vaccine(s) for the prevention and/or treatment of any viral and/or microbial infectious disease, provided that the following diseases shall be excluded: (i) [**]; (ii) [**]; (iii) [**]; and (iv) [**].

1.38 "INFORMATION" shall mean any and all information and data, including without limitation all Merck Know-How, Idera Know-How, and all other scientific, pre-clinical, clinical, regulatory, manufacturing, marketing, financial and commercial information or data, whether communicated in writing or orally or by any other method, which is provided by one Party to the other Party in connection with this Agreement.

1.39 "JOINT INFORMATION AND INVENTIONS" shall mean all information and inventions, including, but not limited to, all discoveries, findings, improvements, processes, methods, protocols, formulas,

data, composition of matter, article of manufacture, know-how and trade secrets combining Merck Technology and Idera Technology, that is conceived and/or reduced to practice as a result of the Research Program, whether or not patentable, and is conceived and/or reduced to practice jointly by employee(s) of Merck, its Affiliate or a Third Party acting on behalf of Merck or its Affiliate within the scope of the Research Program, on the one hand, and employee(s) of Idera, its Affiliate or a Third Party acting on behalf of Idera or its Affiliate within the scope of the Research Program, on the other hand. Idera Oligonucleotide Inventions and Merck Materials Inventions shall be excluded from Joint Information and Inventions.

1.40 "JOINT PATENT RIGHTS" shall mean any and all Patent Rights which claim Joint Information and Inventions. For avoidance of doubt, Joint Patent Rights shall exclude Idera Patent Rights and Merck Patent Rights.

1.41 "JOINT PROGRAM TECHNOLOGY" shall mean Joint Patent Rights and Joint Information and Inventions.

1.42 "JRC" shall mean the joint research committee established to facilitate the Research Program, as more fully described in Section 2.5.1.

1.43 "KNOW-HOW ROYALTY" shall have the meaning given such term in Section 5.4.1 hereof.

1.44 "MAJOR EU MARKET" shall mean France, Germany, Italy, Spain or the United Kingdom.

1.45 "MARKETING AUTHORIZATION" shall mean all approvals from the relevant Regulatory Authority necessary to market and sell a Product in any country (including without limitation, all applicable pricing and governmental reimbursement approvals even if not legally required to sell Product in a country).

1.46 "MAJOR INDICATION" shall mean an Indication for the treatment of the following solid tumor cancers: non-small cell lung cancer, prostate cancer, breast cancer and colo-rectal cancer.

1.47 "MERCK ADJUVANT" shall mean a compound, complex or other agent that enhances the immune response to an Antigen or Antigens that is Controlled by Merck or its Affiliates other than pursuant to this Agreement.

1.48 "MERCK INFORMATION AND INVENTIONS" shall mean (a) all information and inventions, including, but not limited to, all discoveries, findings, improvements, processes, methods, protocols, formulas, data, composition of matter, article of manufacture, know-how and trade secrets, that is conceived and/or reduced to practice as a result of the Research Program, whether or not patentable, that is developed or invented solely by employees of Merck or its Affiliates or other Persons acting on their behalf (other than Idera, its Affiliates or other Persons acting on their behalf) and (b) Merck Materials Inventions but shall exclude Idera Oligonucleotide Inventions.

1.49 "MERCK KNOW-HOW" shall mean any information and materials, including but not limited to discoveries, improvements, processes, methods, protocols, formulas, data, inventions (including without limitation Merck's Information and Inventions and Merck's rights in Joint Information and Inventions), know-how and trade secrets, patentable or otherwise, which during the term of this Agreement, (i) are in the Control of Merck or its Affiliates, (ii) are not generally known and (iii) are necessary to Idera in the performance of its obligations under the Research Program.

1.50 "MERCK MATERIALS" shall mean [**] and other materials to be provided by Merck as set forth on

Schedule 1.50, which may be amended from time to time.

1.51 "MERCK MATERIALS INVENTIONS" shall mean all information and inventions,

including, but not limited to, all discoveries, findings, improvements, processes, methods, protocols, formulas, data, composition of matter, article of manufacture, know-how and trade secrets, that is conceived and/or reduced to practice as a result of the Research Program, whether or not patentable, that are solely related to the modification of, derivatives of, manufacture or use of Merck Materials and which do not include Idera Technology, regardless of whether the inventions are conceived and/or reduced to practice (a) solely by employees of Idera or its Affiliates or other Persons acting on their behalf (other than Merck, its Affiliates or a Third Party acting on their behalf); (b) solely by employees of Merck or its Affiliates or other Persons acting on their behalf (other than Idera, its Affiliates or a Third Party acting on their behalf); or (c) jointly by employee(s) of Merck, its Affiliate or a Third Party acting on behalf of Merck or its Affiliate within the scope of the Research Program, on the one hand, and employee(s) of Idera, its Affiliate or a Third Party acting on behalf of Idera or its Affiliate within the scope of the Research Program, on the other hand, but shall exclude Idera Oligonucleotide Inventions.

1.52 "MERCK PATENT RIGHTS" shall mean (a) Patent Rights Controlled by Merck or its Affiliates that are necessary to Idera in the performance of Idera's obligations under the Research Program and (b) Patent Rights that claim or cover Merck Materials Inventions.

1.53 "MERCK TECHNOLOGY" shall mean Merck Patent Rights, Merck Know-How, Merck Materials and Merck Information and Inventions.

1.54 "NDA" shall mean a New Drug Application, Biologics License Application, Worldwide Marketing Application, Marketing Authorization Application, filing pursuant to Section 510(k) of the United States Federal Food, Drug and Cosmetics Act, or similar application or submission for Marketing Authorization of a Product filed with a Regulatory Authority to obtain marketing approval for a biological, pharmaceutical or diagnostic product in that country or in that group of countries.

1.55 "NET SALES" shall mean the gross invoice price of Product sold by Merck or its Related Parties to the first Third Party after deducting, if not previously deducted, from the amount invoiced or received:

(A) trade and quantity discounts other than early payment cash discounts;

(B) returns, rebates, chargebacks and other allowances;

(C) retroactive price reductions that are actually allowed or granted; and

(D) a fixed amount equal to [**] percent ([**]%) of the amount invoiced to cover bad debt, early payment cash discounts, transportation and insurance, and custom duties.

For the avoidance of doubt, the gross invoice price of Product does not include value added taxes and other similar taxes on Product.

With respect to sales of Combination Products, Net Sales shall be calculated using the following formula:

[**] * Net Sales of Combination Product = Net Sales for the purpose of calculating royalties for Combination Product

Where:

(I) "A" equals the invoice price of Product containing the same Antigen(s) sold without containing one or more other Antigens;

(II) "B" equals the invoice price of the Combination Product; and

(III) all invoice prices of the Product and the Combination Product shall be calculated as the average invoice price during the applicable accounting period for which the Net Sales are being calculated. The deductions set forth in paragraphs (a) through (d) above will be applied in calculating Net Sales for a Combination Product. If, however, the Product is sold only as a Combination Product, then the

Parties shall negotiate in good faith an appropriate calculation of Net Sales that is subject to the royalty payment under this Agreement so as to fairly allocate the relative value of the active ingredients in the Combination Product.

With respect to a given Product (containing a given Selected Collaboration Compound) to achieve First Commercial Sale in a country, such Product shall not be deemed a Combination Product in such country, in which case the above Combination Product Net Sales formula shall not apply to such given Product, but only to subsequent Combination Products.

1.56 "NON-SELECTED COLLABORATION COMPOUND" shall have the meaning given such term in Section 2.8.4.

1.57 "NOVARTIS AGREEMENTS" shall mean the Research Collaboration and Option Agreement, dated May 31, 2005, by and between Idera (formerly known as Hybridon, Inc.) and Novartis International Pharmaceutical Ltd. and the License, Development and Commercialization Agreement, dated May 31, 2005, by and between Idera (formerly known as Hybridon, Inc.) and Novartis International Pharmaceutical Ltd., as such agreements may be amended from time to time.

1.58 "ONCOLOGY FIELD" shall mean the use of Evaluation Collaboration Compound(s) and Selected Collaboration Compound(s) as an Adjuvant contained in or administered in conjunction with any prophylactic and/or therapeutic Vaccine(s) for the prevention and/or treatment of any type of cancer. For avoidance of doubt, Vaccines for the prevention and/or treatment of human papilloma virus and other viruses that are considered precursors to cancer are included in the Oncology Field.

1.59 "PARTY" shall mean Merck and Idera, individually, and "PARTIES" shall mean Merck and Idera, collectively.

1.60 "PATENT RIGHTS" shall mean any and all issued patents and patent applications in the Territory (which for the purposes of this Agreement shall be deemed to include certificates of invention and applications for certificates of invention) and any divisionals, continuations, continuations-in-part, reissues, renewals, substitutions, registrations, re-examinations, revalidations, supplementary protection certificates, pediatric exclusivity periods, any other patent term extensions and exclusivity periods and the like of any such patents and patent applications, and any and all U.S.

and foreign equivalents of the foregoing.

1.61 "PERSON" shall mean any individual, corporation, joint venture, limited liability company, partnership, limited partnership, limited liability partnership, trust or any other private, public or governmental entity.

1.62 "PHASE I CLINICAL TRIAL" shall mean a human clinical trial in the United States that would satisfy the requirements of 21 CFR 312.21(a) or an equivalent human clinical trial in any country outside the United States that would satisfy the requirements applicable to such human clinical trial in such country.

1.63 "PHASE II CLINICAL TRIAL" shall mean a human clinical trial in the United States that would satisfy the requirements of 21 CFR 312.21(b) or an equivalent human clinical trial in any country outside the United States that would satisfy the requirements applicable to such human clinical trial in such country.

1.64 "PHASE III CLINICAL TRIAL" shall mean a human clinical trial in the United States that would satisfy the requirements of 21 CFR 312.21(c) or an equivalent human clinical trial in any country outside the United States that would satisfy the requirements applicable to such human clinical trail in such country.

1.65 "PRODUCT(S)" shall mean any prophylactic or therapeutic Vaccine(s) that contains Selected Collaboration Compound or is administered in conjunction with Selected Collaboration Compound, for any and all uses in the Fields,

including without limitation any Combination Product, (i) in final form for sale by prescription, over-the-counter or any other method, or (ii) for administration in a Clinical Trial.

1.66 "REGISTRATION RIGHTS AGREEMENT" shall mean the Registration Rights Agreement, dated as of the Effective Date, by and between Idera and Merck.

1.67 "REGULATORY AUTHORITY" shall mean any applicable government regulatory authority involved in granting approvals for the manufacturing, marketing, reimbursement and/or pricing of a Product in the Territory, including, in the United States, the United States Food and Drug Administration and any successor governmental authority having substantially the same function.

1.68 "REGULATORY-BASED EXCLUSIVITY" shall mean, with respect to a Product in a country in the Territory, that Merck and/or any of the Related Parties has been granted the exclusive legal right by a Regulatory Authority (or is otherwise entitled to the exclusive legal right by operation of law) in such country to market and sell the Product in such country, including, without limitation, through orphan drug exclusivity or Data Protection.

1.69 "RELATED PARTY" shall mean each of Merck, its Affiliates, and their respective sublicensees (which term does not include distributors), as applicable.

1.70 "RESEARCH PROGRAM" shall mean the research activities undertaken by the Parties hereto as set forth in Article 2 and Schedule 2.1.

1.71 "RESEARCH PROGRAM TERM" shall have the meaning given such term in Section 2.10. All references to Research Program Term shall be deemed to include any Research Program Term extension provided pursuant to Section 2.10.

1.72 "SELECTED COLLABORATION COMPOUND" shall have the meaning given such term in Section 2.8.3.

1.73 "SELECTION CRITERIA" shall mean those criteria set forth on Schedule 1.73 attached hereto.

1.74 "SENSITIVE INFORMATION" shall have the meaning given such term in Section 10.2.3(d).

1.75 "STARTING MATERIAL" shall have the meaning given such term in Section 2.8.1.

1.76 "STOCK PURCHASE AGREEMENT" shall mean the Stock Purchase Agreement, dated as of the Effective Date, by and between Idera and Merck.

1.77 "TERRITORY" shall mean all of the countries in the world, and their territories and possessions.

1.78 "THE IMMUNE RESPONSE CORPORATION AGREEMENT" shall mean the Collaboration and License Agreement, dated October 8, 2003, by and between Idera (formerly known as Hybridon, Inc.) and The Immune Response Corporation, as such agreement may be amended from time to time.

1.79 "THIRD PARTY" shall mean any Person other than Merck and its Related Parties, and Idera and its Affiliates.

1.80 "TLR" shall mean Toll-like Receptor.

1.81 "TYPE I PRODUCT" shall mean a Product(s) containing or administered in conjunction with (i) a Selected Collaboration Compound targeting and which is intended to act as an agonist of TLR 9; or (ii) a Selected Collaboration Compound targeting and which is intended to act as an agonist of TLR 9 and a Selected Collaboration Compound targeting TLR 7 and/or TLR 8.

1.82 "TYPE II PRODUCT" shall mean a Product(s) containing or administered in conjunction with (i) a Selected Collaboration Compound targeting and which is intended to act as an agonist of TLR 7; (ii) a Selected Collaboration Compound targeting and which is intended to act as an agonist of TLR 8; or (iii) a Selected Collaboration Compound targeting and which is intended to

act as an agonist of both TLR 7 and TLR 8.

1.83 "VACCINE" shall mean any preparation that elicits a cellular mediated and/or humoral immune response in humans provided that in each case such a preparation contains an Antigen or Antigens.

1.84 "VALID PATENT CLAIM" shall mean a claim of an issued and unexpired patent included within the Idera Patent Rights or Joint Patent Rights which claims a Selected Collaboration Compound as a composition of matter or method of use, which claim has not been revoked or held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction (which decision is not appealable or has not been appealed within the time allowed for appeal), and which claim has not been disclaimed, denied or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise.

2. RESEARCH PROGRAM

2.1 GENERAL

Idera and Merck shall engage in the Research Program upon the terms and conditions set forth in this Agreement. The activities to be undertaken in the course of the Research Program are set forth in Schedule 2.1, which may be amended from time to time upon mutual written agreement of the JRC in accordance with this Article 2. The objectives of the Research Program are (a) to discover and synthesize Evaluation Collaboration Compounds that are intended to act as agonists of TLR 7, TLR 8 or both TLR 7 and TLR 8, from which Merck will identify Selected Collaboration Compounds for further development by Merck as Type II Products in the Fields and (b) to evaluate Evaluation Collaboration Compounds that are intended to act as agonists of TLR 9, from which Merck will identify Selected Collaboration Compounds for further development by Merck as Type I Products in the Fields.

2.2 CONDUCT OF RESEARCH

Idera and Merck each shall proceed diligently with the work set out in the Research Program by using their respective good faith efforts to allocate sufficient time, effort, equipment and facilities to the Research Program and to use personnel with sufficient skills and experience as are required to accomplish the Research Program in accordance with the terms of this Agreement and Schedule 2.1.

Merck shall be entitled to utilize the services of its Affiliates and Third Parties to perform its Research Program activities. Idera shall be entitled to utilize the services of Third Parties to perform its Research Program activities only upon Merck's prior written consent or as specifically set forth in Schedule 2.1, provided that Merck shall not unreasonably withhold, delay or condition its consent to Idera's use of Third Party service providers. Notwithstanding any such consent, each Party shall remain at all times fully liable for its respective responsibilities under the Research Program.

2.3 USE OF RESEARCH FUNDING; FTE COMMITMENTS

2.3.1 Idera shall apply the FTE funding it receives from Merck under this Agreement pursuant to Section 5.2 solely to carry out its Research Program activities in accordance with Schedule 2.1 and the terms and conditions of this Agreement.

2.3.2 During the Research Program Term, Idera shall provide the number of FTEs that are approved by the Joint Research Committee pursuant to Section 2.5.2 to work on the Research Program. Such FTEs shall be funded by Merck in accordance with Section 5.2. The number of FTEs to be dedicated by Idera to the Research Program during the first two years is set forth in Schedule 2.3.2. If the Research Program Term is extended by Merck as provided in Section 2.10 or is otherwise extended by mutual agreement of the Parties, the Parties shall discuss in good faith the level of FTE staffing during the extended Research Program Term. During the Research Program Term, the Joint Research Committee shall provide Idera with at least 90 days prior written notice of any required increase or decrease in the number of such FTEs, provided

that the Joint Research Committee cannot increase the number of FTEs such that the total number of FTEs exceeds [**].

2.3.3 Idera shall require (i) by written agreement that all FTEs and all other Idera personnel, employees, and agents involved in the Research Program have entered into confidentiality and invention assignment agreements that are consistent with the provisions of this Agreement and shall be obligated to assign any rights they may have in any Idera Information and Inventions and Joint Information and Inventions made during such work to Idera consistent with any rights granted to Merck in any such Information and Inventions under this Agreement; and (ii) that each FTE who works on the Research Program is qualified by appropriate experience and qualifications to perform the Research Program work assigned to such FTE in a capable and professional manner.

2.4 PRINCIPAL SCIENTISTS

The principal scientists for the Research Program are [**] for Idera and [**] for Merck. The Research Program and all work assignments to be performed by Idera and Merck shall be carried out under the direction and supervision of the principal scientists noted above. During the first year of the Research Program Term, [**] shall serve as the principal scientists for Idera.

After the first year of the Research Program Term, each Party shall notify the other Party as soon as practicable upon the changing of its principal scientist and shall require that its principal scientist be qualified by the appropriate experience and qualifications to direct and supervise its performance of the Research Program.

2.5 JOINT RESEARCH COMMITTEE

The Parties hereby establish a committee to facilitate the Research Program as follows:

2.5.1 Composition of the Joint Research Committee. The Research Program shall be conducted under the direction of a joint research committee (the "JRC") comprised of three (3) representatives of Merck and three (3) representatives of Idera. Each Party shall name its JRC representatives and notify the other Party of its JRC representatives promptly following the Effective Date. Each Party may change its representatives to the JRC from time to time, in its sole discretion, effective upon notice to the other Party of such change. These representatives shall have appropriate technical credentials, experience and knowledge, and ongoing familiarity with the Research Program. Additional representatives or consultants may from time to time, by mutual consent of the Parties, be invited to attend JRC meetings, subject to such representatives' or consultants' written agreement to comply with the requirements of Section 4.1. The JRC shall be chaired by a representative of Merck. Each Party shall bear its own expenses related to the attendance at such meetings by its representatives.

2.5.2 Scope of JRC Oversight. The JRC's oversight responsibilities shall be limited to the Research Program activities specified in Schedule 2.1 and within such scope the JRC shall (a) confer regularly regarding the status of the Research Program, (b) review relevant data, consider and advise on any technical issues that arise, (c) consider issues of priority, (d) review and approve the efforts of the Parties in the conduct of the Research Program; (e) review and approve amendments to the Research Program as set forth in Schedule 2.1; (f) reallocate resources, including FTEs, within the Research Program; (g) subject to Section 2.3.2, designate the number of FTEs for each Calendar Quarter, (h) receive updates on the identity of any Third Party conducting Research Program work on behalf of either Party in accordance with Section 2.2 (which each Party shall provide to the JRC), (i) address such other matters relating to the activities of the Research Program as either Party may bring before the JRC; and (j) attempt to resolve any disputes within

the JRC on an informal basis. Notwithstanding anything to the contrary in the foregoing, the JRC shall not (i) have any supervisory or decision making authority beyond the Research Program activities specified in Schedule 2.1; (ii) without the consent of Idera, require Idera to commit its FTE resources beyond those set forth in Section 2.3.2; or (iii) except for Schedule 2.1, modify or amend any terms of this Agreement.

2.5.3 Decision-Making. Decisions of the JRC shall be made unanimously, with each Party having one vote. In the event that the JRC cannot or does not, after good faith efforts, reach agreement on an issue, the issue shall be elevated to a Vice President of MRL for Merck and the Chief Scientific Officer for Idera. If such executives cannot resolve the issue, it shall be further elevated to an Executive Vice President or Franchise Head of MRL for Merck and the Chief Executive Officer of Idera for Idera. If such executives cannot resolve the issue, the resolution and/or course of conduct shall be determined by Merck in good faith, taking Idera's reasonable interests into account.

2.5.4 Meetings. The JRC shall meet in accordance with a schedule established by mutual written agreement of the Parties, but no less frequently than once per Calendar Quarter, with the location for such meetings alternating between Idera and Merck facilities (or such other location as may be determined by the JRC). Alternatively, the JRC may meet by means of teleconference, videoconference or other similar communications equipment.

2.6 EXCHANGE OF INFORMATION

Upon execution of this Agreement, and on an ongoing basis during the Research Program Term, Idera shall promptly disclose to Merck in writing or in an electronic format all Idera Know-How not previously disclosed. Merck shall promptly disclose to Idera during the Research Program Term all Merck Know-How.

2.7 RECORDS AND REPORTS

2.7.1 Records. Idera shall maintain records, in sufficient detail and in good scientific manner appropriate for patent and regulatory purposes, which shall fully and properly reflect all work done and results achieved in the performance of the Research Program by Idera.

2.7.2 Copies and Inspection of Records. Merck shall have the right, during normal business hours and upon reasonable notice, to inspect and copy all such records of Idera referred to in Section 2.7.1. Merck shall maintain such records and the information disclosed therein in confidence in accordance with Section 4.1. Merck shall have the right to arrange for its employees and/or consultants involved in the activities contemplated hereunder to visit the offices and laboratories of Idera and any of its Third Party contractors as permitted under Section 2.2 during normal business hours and upon reasonable notice, and at reasonable intervals, to discuss in the presence of Idera's principal scientist the Research Program work and its results in detail with the technical personnel of Idera involved in the Research Program. Upon request, Idera shall provide copies of the records described in Section 2.7.1 above.

2.7.3 Quarterly Reports. Within thirty (30) days following the end of each Calendar Quarter during the Research Program Term, Idera shall provide to Merck a written progress report in English which shall describe in sufficient detail the work performed to date by Idera so that Merck may evaluate Idera's progress in relation to the goals of the Research

Program. Further, Idera shall promptly respond to reasonable requests

by Merck for additional information regarding Idera's performance of Research Program activities.

2.8 DISCLOSURE, EVALUATION AND SELECTION OF COLLABORATION COMPOUNDS

2.8.1 Disclosure of Evaluation Collaboration Compounds and Starting Material. Following the Effective Date and during the Research Program Term, Idera shall disclose to Merck in writing all Collaboration Compounds satisfying the Evaluation Criteria as set forth in Schedule 1.18 ("EVALUATION COLLABORATION COMPOUNDS") in the manner and to the extent described below. In addition, Idera shall provide Merck with sufficient samples of such Evaluation Collaboration Compounds, along with their structures, results of characterization studies on the Evaluation Collaboration Compounds and such other information as may be required by Schedule 2.1.

During the first [**] months of the Research Program Term, Idera shall provide Merck with a total of [**] Evaluation Collaboration Compounds targeting TLR 9 and a total of [**] Evaluation Collaboration Compounds targeting TLR 7, TLR 8 and/or TLR 7 and TLR 8 (collectively "STARTING MATERIAL"). The Starting Material shall not incorporate any Merck Material. Idera shall use reasonable efforts to deliver Starting Material according to the following schedule: [**] Evaluation Collaboration Compounds targeting TLR 9 and [**] Evaluation Collaboration Compounds targeting TLR 7, TLR 8 and/or TLR 7 and TLR 8 at the beginning of each [**]. Idera may, subject to JRC approval, change the delivery schedule of Starting Material. Following the initial delivery of Starting Material, Idera shall use commercially reasonable efforts to incorporate guidance from Merck regarding the desired properties of the Starting Material so that Idera can synthesize and/or modify new Starting Material incorporating such guidance from Merck or provide Starting Material from Idera's existing library to address Merck's guidance. The benchmark for synthesizing Starting Material shall be those Collaboration Compounds listed in Schedule 1.18. In the event that the JRC determines that the benchmark Collaboration Compounds should be replaced by different Collaboration Compounds, Schedule 1.18 shall be amended to reflect the new benchmark Collaboration Compounds subject to the written consent of both Parties, which consent shall not be unreasonably withheld. Subject to Section 2.8.2, Merck covenants and agrees, for itself and its Related Parties, not to re-create any Starting Material.

2.8.2 Creation and Modification of Evaluation Collaboration Compounds Targeting TLR 7, TLR 8 and/or TLR 7 and TLR 8. As set forth in Schedule 2.1, the Parties shall use commercially reasonable efforts to perform their respective obligations in the creation, modification and development of Evaluation Collaboration Compounds targeting TLR 7, TLR 8 and/or TLR 7 and TLR 8 throughout the Research Program Term. There shall be no limit on the number of such Evaluation Collaboration Compounds that the Parties may create, modify or develop during the Research Program Term, provided that the number of Starting Materials as set forth in Section 2.8.1 cannot be changed without the mutual written consent of both Parties.

2.8.3 Designation of Selected Collaboration Compounds. Upon receipt of samples of Evaluation Collaboration Compounds and the information set forth above, Merck shall use reasonable efforts to evaluate such Evaluation Collaboration Compounds to determine in its sole discretion whether they satisfy the Selection Criteria. If an Evaluation Collaboration Compound satisfies the Selection Criteria, Merck shall promptly notify Idera in writing and such Evaluation Collaboration Compound shall be deemed a "SELECTED COLLABORATION COMPOUND." Merck may designate such Selected

Collaboration Compounds at any time during the Research Program but no later than [**] following the end of the Research Program Term. With respect to Evaluation Collaboration Compounds targeting TLR 9, Merck shall have the right to select up to [**] Selected Collaboration Compounds for use in the Fields. With respect to Evaluation Collaboration Compounds targeting TLR 7 and/or TLR 8, Merck shall have

the right to select up to [**] Selected Collaboration Compounds for use in the Fields.

In the event that a Selected Collaboration Compound fails in pre-clinical and/or clinical development for reasons due to safety, tolerability or efficacy, then at Merck's request, Idera shall provide additional Evaluation Collaboration Compounds for consideration as a Selected Collaboration Compound in the applicable Field at any time during the term of the Agreement, provided that Merck may exercise such right only for a period of [**] from the expiration of the Research Program Term. In the event that Merck, in its sole discretion, determines such Evaluation Collaboration Compound satisfies the Selection Criteria, such Evaluation Collaboration Compound shall be deemed a Selected Collaboration Compound.

2.8.4 Designation of Non-Selected Collaboration Compounds. Within [**] of the end of the Research Program Term, Merck shall designate among the Evaluation Collaboration Compounds which ones shall be deemed "NON-SELECTED COLLABORATION COMPOUNDS." Idera may develop and commercialize Non-Selected Collaboration Compounds only in the Idera Field. For avoidance of doubt, Merck and its Affiliates shall retain the right to use any Non-Selected Collaboration Compounds that are claimed in or covered by the Joint Information and Inventions solely for internal research purposes of Merck or its Affiliates which includes research carried out by any Third Party on behalf of Merck or its Affiliates. Internal research purposes expressly excludes use of any Non-Selected Collaboration Compounds by Merck or its Related Parties in any Clinical Trial.

2.9 OWNERSHIP OF MATERIALS, INFORMATION AND INVENTIONS

2.9.1 Ownership of Materials. Neither Party shall obtain any ownership rights in the materials of the other Party by virtue of this Agreement. Except to the extent licensed herein, Merck shall retain all right, title and interest in and to the Merck Materials, and Idera shall retain all right, title and interest to the Idera Materials. Ownership of materials will remain with the respective Parties regardless of any modification or derivative thereof made by either Party solely or by both Parties jointly. Each Party shall have the right to license or transfer any such modification and/or derivative thereof, to any Third Party in the Party's sole discretion for any purpose, provided that such uses do not conflict with the licenses granted under this Agreement.

2.9.2 Ownership of Information and Inventions. The entire right, title and interest in:

(A) Idera Information and Inventions shall be owned solely by Idera;

(B) Merck Information and Inventions shall be owned solely by Merck; and

(C) Joint Information and Inventions shall be owned jointly by Idera and Merck.

Idera shall promptly disclose to Merck in writing the development, making, conception or reduction to practice of Idera Information and Inventions, Joint Information and Inventions and Merck Materials Inventions. Merck shall promptly disclose to Idera in

writing the development, making, conception or reduction to practice of Idera Oligonucleotide Inventions and Joint Information and Inventions.

2.9.3 Inventorship. Inventorship of inventions, whether or not patentable, conceived and/or reduced to practice by the Parties in the course of exercising rights or performing obligations pursuant to this Agreement, all related intellectual property rights, and all other information developed in the course of the Parties' exercise of rights under or performance of this Agreement shall be determined in

accordance with the rules of inventorship under United States patent laws.

2.9.4 Assignment of Inventions. The Parties shall execute such documents and perform such acts, at their own expense, as may be reasonably necessary to effect an assignment of Patent Rights relating to Oligonucleotide Inventions and Merck Materials Inventions, as the case may be, to the other Party in a timely manner to allow such Party to prosecute and maintain Patent Rights relating to such inventions.

2.10 RESEARCH PROGRAM TERM

Except as otherwise provided herein, the initial term of the Research Program shall commence on the Effective Date and continue for a period of two (2) years. Merck may extend such term by an additional year by providing Idera with ninety (90) days written notice, for a total of up to two (2) renewals. Merck shall provide Idera with written notice of such one-year renewal and the Parties shall amend Schedule 2.1 as applicable. The initial term and subsequent extension terms are collectively referred to in this Agreement as the "RESEARCH PROGRAM TERM."

2.11 MERCK MATERIALS

Merck shall provide Idera with sufficient quantities of the materials set forth in Schedule 1.50 ("MERCK MATERIALS") solely for the purpose of enabling Idera to perform its activities under the Research Program in accordance with the terms of this Agreement. Idera covenants and agrees, for itself and its Affiliates, not to re-create or modify any Merck Materials. The Merck Materials are not to be used in humans, nor shall any of the Merck Materials, or any derivatives, analogs, modifications or components thereof, be transferred, delivered or disclosed to any Third Party without the prior written approval of Merck. Any unused Merck Materials and any derivatives, analogs, modifications or components thereof shall be, at Merck's option, either returned to Merck, or destroyed in accordance with instructions by Merck.

2.12 EXCLUSIVE EFFORTS

During the term of the Agreement, except as set forth in Schedule 2.12, Idera shall work exclusively (even as to Idera itself) with Merck and its Affiliates in efforts to research, develop and commercialize any Adjuvant(s) for use in conjunction with Vaccine(s) or Vaccine products containing such Adjuvant(s), including without limitation, Evaluation Collaboration Compound(s) and Selected Collaboration Compound(s), for the prevention and/or treatment of Alzheimer's Disease, any type of cancer and/or any disease within the Infectious Disease Field.

2.13 USE OF HUMAN MATERIALS

If any human primary cell lines, human tissue, human clinical isolates or similar human-derived materials ("HUMAN MATERIALS") have been or are to be collected and/or used in the Research Program, Idera represents and warrants (i) that it has complied, or shall comply, with all

applicable laws, guidelines and regulations relating to the collection and/or use of the Human Materials and (ii) that it has obtained, or shall obtain, all necessary approvals and appropriate informed consents, in writing, for the collection and/or use of such Human Materials. Idera shall provide documentation of such approvals and consents upon Merck's request. Idera further represents and warrants that such Human Materials may be used as contemplated in this Agreement without any obligations to the individuals or entities ("PROVIDERS") who contributed the Human Materials, including, without limitation, any obligations of compensation to such Providers or any other Third Party for the intellectual property associated with the Human Materials or the commercial use thereof for any purposes.

3. LICENSES; DEVELOPMENT AND COMMERCIALIZATION

3.1 LICENSE GRANTS TO MERCK

3.1.1 Exclusive License Grant. Subject to the terms and conditions of this Agreement, Idera hereby grants to Merck an exclusive license (even as to Idera) in the Territory under Idera Technology and Idera's interest in Joint Program Technology, with a right of sublicense, (a) to research and develop Evaluation Collaboration Compounds in the Fields and (b) to research, develop, make, have made, use, offer to sell, sell, have sold, import and export Selected Collaboration Compound(s) and Product(s) in the Fields. The foregoing exclusive license is subject to the non-exclusive rights granted to The Immune Response Corporation as set forth in Schedule 2.12 attached hereto. Notwithstanding anything to the contrary contained in this Agreement, Idera retains all rights under Idera Technology and Idera's interest in Joint Program Technology to research, develop, make, have made, use, offer to sell, sell, have sold, import and export IMO-2055 and IMO-2125 outside the Fields, both during and after the Research Program Term.

3.1.2 Non-Exclusive License Grant. In the event that the researching, developing, making, having made, use, offer for sale, sale, import or export by Merck, or Merck's Related Parties, of Evaluation Collaboration Compound(s), Selected Collaboration Compound(s) or Product(s) in accordance with the license granted pursuant to Section 3.1.1 would infringe during the term of this Agreement a claim of issued letters patent which Idera Controls and which patents are not covered by the grant in Section 3.1.1, Idera hereby grants to Merck, to the extent Idera is legally able to do so, a non-exclusive, sublicensable, royalty-free license in the Territory under such issued letters patent for Merck and Merck's Related Parties to research, develop, make, have made, use, sell, offer for sale, import and export such Evaluation Collaboration Compound(s), Selected Collaboration Compound(s) and Product(s) in the Fields.

3.1.3 Sublicense Rights. Subject to the terms and conditions of this Agreement, Merck shall have the right to grant sublicenses of the rights granted to it under this Section 3.1 to (i) its Affiliates, (ii) Third Parties engaged in research, development and marketing of Products, and (iii) contract service providers providing services for Merck or its Affiliates, to the extent such sublicenses are necessary for the research, development, manufacturing and commercialization of Evaluation Collaboration Compounds, Selected Collaboration Compounds and Products in the Fields by or on behalf of Merck or its Affiliates. Merck shall require each sublicensee to be bound by the applicable terms of this Agreement.

3.2 LICENSE GRANTS TO IDERA

3.2.1 Exclusive License Grant. Subject to the terms and conditions of this Agreement, Merck hereby grants to Idera an exclusive (even as to Merck), royalty-free license in the Territory under Merck's interest in Joint Program Technology, with a right of sublicense, to research, develop, make, have made, use, offer to sell, sell, have sold, import and export Non-Selected Collaboration Compounds, IMO-2055 and IMO-2125 in the Idera Field. For avoidance of doubt, except for IMO-2055 and IMO-2125, this exclusive license grant shall not include the grant of any rights to Idera to research, develop, make, have made, use, offer to sell, sell, have sold, import and export Selected Collaboration Compounds for any purpose, including, without limitation, in the Idera Field.

3.2.2 Non-Exclusive License Grant. Merck hereby grants to Idera a non-exclusive, non-sublicensable, royalty-free license in the Territory under Merck Technology for the sole purpose of discharging Idera's obligations under the Research Program during the Research Program Term.

3.3 NO IMPLIED LICENSES

Except as specifically set forth in this Agreement, neither Party shall acquire any license or other intellectual property interest, by implication or otherwise, in any Information or materials disclosed to it under this

Agreement or under any patents or patent applications owned or Controlled by the other Party or its Affiliates.

3.4 DEVELOPMENT AND COMMERCIALIZATION

Merck shall use reasonable efforts and resources, including reasonably necessary personnel and financial resources, consistent with the usual practice followed by Merck in pursuing the commercialization and marketing of its other Vaccine products of a similar commercial value, at its own expense, to develop and commercialize a Product in such countries in the Territory where in Merck's opinion it is commercially viable to do so. To the extent reasonable and relevant, Merck shall take into consideration the following factors: issues of safety and efficacy, Product profile, difficulty in developing or manufacturing the Product, competitiveness of alternative Third Party products in the marketplace, the patent or other proprietary position of the Product, the regulatory structure involved and market potential of the Product. During the term of the Agreement, Merck shall keep Idera regularly informed regarding the development of Products by Merck or its Affiliates. Such information shall be communicated to Idera through the JRC during the Research Program Term. After the end of the Research Program Term, and until the First Commercial Sale of a Product, Merck shall promptly respond to reasonable requests by Idera for information regarding development activities by Merck and its Related Parties but no more than twice per year.

3.5 EXCUSED PERFORMANCE

The obligations of Merck with respect to any Product under Section 3.4 are expressly conditioned upon the continuing absence of any material adverse condition or event relating to the safety or efficacy of the Product, and the obligation of Merck to develop or market any such Product shall be delayed or suspended so long as in Merck's opinion any such condition or event exists. In resolving or addressing such material adverse condition or event, Merck shall apply the level of efforts and resources described in Section 3.4 that Merck typically devotes to overcome similar

material adverse conditions and events with respect to its own compounds or products, regardless of whether such compound or product is subject to a license from a Third Party.

3.6 EXCLUSIVE NEGOTIATION PERIOD

Idera agrees that for a period of three (3) months commencing on the Effective Date, Idera shall not enter into any negotiations or any agreement with any Third Party regarding any rights or licenses to develop and commercialize TLR antagonists in the area of immunosuppression. After such three (3) month period, Idera shall be free to grant rights and licenses to Third Parties with respect to the development and commercialization of TLR antagonists in the area of immunosuppression, subject to any agreement that the Parties may elect, in each Party's absolute discretion, to enter into during such three (3) month period.

3.7 ADVERSE EXPERIENCE REPORTING

Idera agrees throughout the term of this Agreement to notify Merck within two (2) working days in English of any information of which Idera becomes aware in the Territory concerning any side effect, injury, toxicity or sensitivity reaction, or any unexpected incident, and the severity thereof, whether or not determined to be attributable to any Evaluation Collaboration Compound or Selected Collaboration Compound (hereinafter "Adverse Experience"), where such Adverse Experience is serious and associated with the clinical uses, studies, investigations, tests and marketing of Evaluation Collaboration Compounds or Selected Collaboration Compounds, whether or not determined to be attributable to Evaluation Collaboration Compound or Selected Collaboration Compound. With respect to all other adverse experiences (non-serious expected or non-serious unexpected adverse experiences), Idera shall furnish Merck with copies of such non-serious adverse experiences reported to Idera in connection with the marketing of Evaluation Collaboration Compound or Selected Collaboration Compound in English within 10 working days after receipt. For

clarity, Idera shall provide Adverse Experience reports to Merck with respect to those Adverse Experiences relating to IMO-2055 under The Immune Response Corporation Agreement, to the extent Idera is aware of such information, in accordance with the term of this Section 2.7. Merck shall provide Adverse Experience reports to Idera with respect to IMO-2055 and IMO-2125 within the same time frames as set forth above. The Parties acknowledge that information provided in the timeframes set forth in this Section 3.7 may be in the form of raw data.

"Serious" as used in this Section refers to an experience which results in death, is immediately life threatening, results in persistent and significant disability/incapacity or requires in-patient hospitalization, or prolongation of existing hospitalization, or is a congenital anomaly, cancer or an overdose. Other important medical events that may jeopardize the patient or may require intervention to prevent one of the outcomes previously listed should also be considered serious. "Unexpected" as used in this Section refers to a condition or development not listed in the current labeling for Evaluation Collaboration Compound or Selected Collaboration Compound, and includes an event that may be symptomatically and pathophysiologically related to an event listed in the labeling, but differs from the event because of increased frequency or greater severity or specificity. Furthermore, Idera agrees throughout the Term to notify Merck in English of any "Serious" Adverse Experience which occurs in the Territory within two (2) working days after Idera becomes aware of such event and of any Non-serious Adverse Experience which occurs in the Territory within 10 working days after Idera becomes aware of such event.

It is understood and agreed that these adverse experience reporting requirement provisions are based on the policies and procedures of Merck and regulatory reporting requirements.

Accordingly, in the event of changes to regulatory requirements for adverse experience reporting, Idera agrees to comply with such revised notification requirements.

As soon as practicable after the Execution Date, but no later than the start of Merck Clinical Trials, the Parties shall enter into a separate and more detailed agreement concerning adverse experience exchange and reporting.

4. CONFIDENTIALITY AND PUBLICATION

4.1 NONDISCLOSURE OBLIGATION

All Information disclosed by one Party to the other Party hereunder shall be maintained in confidence by the receiving Party and its Affiliates and shall not be disclosed to any Third Party or used for any purpose except as set forth herein without the prior written consent of the disclosing Party, except to the extent that such Information:

(A) is known by the receiving Party at the time of its receipt, and not through a prior disclosure by the disclosing Party, as documented by the receiving Party's business records;

(B) is in the public domain by use and/or publication before its receipt from the disclosing Party, or thereafter enters the public domain through no fault of the receiving Party;

(C) is subsequently disclosed to the receiving Party by a Third Party who may lawfully do so and is not under an obligation of confidentiality to the disclosing Party;

(D) is developed by the receiving Party independently of Information received from the disclosing Party, as documented by the receiving Party's business records;

(E) is reasonably necessary to disclose to governmental or other regulatory agencies (i) in order to obtain patents or to gain or maintain approval to conduct clinical trials or to market Product, but such disclosure may be only to the extent reasonably necessary to

obtain patents or Marketing Authorizations or (ii) to comply with disclosure obligations under securities laws, rules or regulations, including, without limitation, the rules and regulations of any stock exchange;

(F) is deemed necessary by Merck to be disclosed to subliceenses, agents, consultants, and/or other Third Parties for any and all purposes Merck and its Affiliates deem necessary or advisable to research, develop and commercialize Evaluation Collaboration Compounds, Selected Collaboration Compounds and Products in accordance with this Agreement on the condition that such Persons agree to be bound by the confidentiality and non-use obligations at least as strict as those contained in this Agreement; provided, however, that the term of confidentiality for such Third Parties shall be no less than [**] years;

(G) is deemed necessary by counsel to the receiving Party to be disclosed to such Party's attorneys, independent accountants or financial advisors for the sole purpose of enabling such attorneys, independent accountants or financial advisors to provide advice to the receiving Party, on the condition that such attorneys, independent accountants and financial advisors agree to be bound by confidentiality and non-use obligations at least as strict as those contained in this Agreement; provided, however, that the term of confidentiality for such attorneys, independent accountants and financial advisors shall be no less than [**] years;

(H) is deemed necessary by the receiving Party to be disclosed to a Third Party that has provided the receiving Party with a bona fide written offer to purchase all or substantially all of the assets of the receiving Party or acquire fifty percent (50%) or more of the voting equity securities or management control of such receiving Party, on the condition that such Third Party and its attorneys, independent accountants and financial advisors agree to be bound by confidentiality and non-use obligations at least as strict as those contained in this Agreement; provided, however, that the term of confidentiality for such Third Party and its attorneys, independent accountants and financial advisors shall be no less than [**] years; or

(I) is an Adverse Experience relating to IMO-2055, provided that such disclosure may be made by Idera only to The Immune Response Corporation as required by The Immune Response Corporation Agreement.

Any combination of features or disclosures shall not be deemed to fall within the foregoing exclusions merely because individual features are published or available to the general public or in the rightful possession of the receiving Party unless the combination itself and principle of operation are published or available to the general public or in the rightful possession of the receiving Party.

If a Party is required by judicial or administrative process to disclose Information that is subject to the non-disclosure provisions of this Section 4.1 or Section 4.2, such Party shall promptly inform the other Party of the disclosure that is being sought in order to provide the other Party an opportunity to challenge or limit the disclosure obligations. Information that is disclosed by judicial or administrative process shall remain otherwise subject to the confidentiality and non-use provisions of this Section 4.1 and Section 4.2.

4.2 IDERA KNOW-HOW

Idera agrees to keep all Idera Information and Inventions solely related to Evaluation Collaboration Compounds and Selected Collaboration Compounds in the Fields confidential subject to exceptions (b) and (e) in Section 4.1 above and subject to Section 4.3.

4.3 PUBLICATION

Merck and Idera each acknowledge the other Party's interest in publishing

the results of its research in order to obtain recognition within the scientific community and to advance the state of scientific knowledge. Each Party also recognizes the mutual interest in obtaining valid patent protection and in protecting business interests and trade secret information. Consequently, except for disclosures permitted pursuant to Section 4.1, prior to the expiration of the one-year anniversary of the end of the Research Program Term, either Party, its employees or consultants wishing to make a publication regarding an Evaluation Collaboration Compound shall deliver to the other Party a copy of the proposed written publication or an outline of an oral disclosure at least sixty (60) days prior to submission for publication or presentation. The reviewing Party shall have the right (a) to propose modifications to the publication or presentation for patent reasons, trade secret reasons or business reasons or (b) to request a reasonable delay in publication or presentation in order to protect patentable information. If the reviewing Party requests a delay, the publishing Party shall delay submission or presentation for a period of ninety (90) days to enable patent applications protecting each Party's rights in such information to be filed in accordance with Article 7 below. Upon expiration of such ninety (90) days, the publishing Party shall be free to proceed with the publication or presentation. If the reviewing

Party requests modifications to the publication or presentation, the publishing Party shall edit such publication to prevent disclosure of trade secret or proprietary business information prior to submission of the publication or presentation. For the avoidance of doubt, Merck acknowledges and agrees that Idera shall have the right to publish the results of its research with respect to IMO-2055, IMO-2125, IDR-002 and IDR-004 outside the Fields.

4.4 PUBLICITY/USE OF NAMES

Upon execution of this Agreement, the Parties shall issue a joint press release in the form attached hereto as Schedule 4.4. No disclosure of the existence, or the terms, of this Agreement, the Stock Purchase Agreement or the Registration Rights Agreement may be made by either Party, and neither Party shall use the name, trademark, trade name or logo of the other Party, its Affiliates or their respective employees in any publicity, promotion, news release or disclosure relating to this Agreement or its subject matter, without the prior express written permission of the other Party, except as may be required by law. With respect to the achievement of milestones as set forth in Section 5.3.2, Idera may issue a press release regarding such achievement, provided that Merck is given five (5) business days to review and comment on the proposed press release or public disclosure.

5. PAYMENTS; ROYALTIES AND REPORTS

5.1 LICENSE FEE

In consideration for the licenses granted herein under Idera Technology and Idera's interest in Joint Program Technology and other rights granted under this Agreement upon the terms and conditions contained herein, Merck shall pay to Idera Twenty Million Dollars (USD $20,000,000) within ten (10) business days after the Effective Date and shall make an equity investment of Ten Million Dollars (USD $10,000,000) in Idera accordance with the terms and conditions of the Stock Purchase Agreement and Registration Rights Agreement.

5.2 RESEARCH PROGRAM FTE FUNDING; ADDITIONAL SUPPLY

Merck shall fund each JRC-approved FTE provided by Idera pursuant to Section 2.3 at the FTE Rate. Merck will pay Idera the FTE Rate [**] installments, each installment equal to [**] of the FTE Rate multiplied by the number of FTEs for the subsequent [**]; provided that the FTE payment for (a) the first [**] shall be prorated from the Effective Date and will be due within [**] days of the Effective Date and (b) the final [**] during the Research Program Term shall be pro rated to the date of expiration or termination of the Research Program Term. If for any [**] during the Research Program Term, the number of Idera FTEs dedicated to the Research

Program falls below the number funded by Merck, Idera will promptly notify Merck of such discrepancy, and, without limiting any other rights Merck may have under this Agreement, Merck will be entitled to adjust the Research Program funding payment under this Section as appropriate. In the event that the Research Program Term is terminated in accordance with this Agreement, Merck shall be entitled to a refund of any prepaid FTE funding to the extent it covers any period after the effective date of such termination. If Merck requests quantities of Evaluation Collaboration Compound from Idera in excess of [**] for any study, Merck shall reimburse Idera for Idera's out-of-pocket expenses incurred in procuring such additional quantities within [**] days of receipt of such materials and an invoice from Idera.

5.3 MILESTONE PAYMENTS

5.3.1 Pre-Clinical Development Milestones. Subject to the terms and conditions of this Agreement, Merck shall pay to Idera the following milestone payments based upon the achievement of such milestones:

(A) In the Oncology Field, [**] Dollars (USD $[**]) upon demonstration of the following: (i) [**]; (ii) [**]; and (iii) [**]. The baseline for comparison shall be the [**] that does not [**] or [**] in the [**].

(B) In the Infectious Disease Field or Alzheimer's Disease Field, [**] Dollars (USD $[**]) upon demonstration of a [**] after the [**] or [**] in [**]. The baseline for comparison shall be the [**] containing a [**] but not an [**] or [**].

Merck shall notify Idera in writing within fifteen (15) days following the achievement of each milestone, and shall make the appropriate milestone payment to Idera within thirty (30) days after providing such written notice. Each of the above milestone payments described in subsections (a) and (b) hereof shall be payable only once upon the initial achievement of such milestone and no amounts shall be due hereunder for subsequent or repeated achievement of such milestone. For the avoidance of doubt, the achievement of the above milestones does not affect the obligations of the Parties to develop Collaboration Compounds under the Research Program.

5.3.2 Clinical Development Milestones. With respect to each Type I Product and each Type II Product in the Fields, Merck shall pay to Idera the following milestone payments upon the achievement of such milestones subject to the terms and conditions of this Agreement.

(A) Oncology Field

		TYPE I PRODUCT	TYPE II PRODUCT
(i)	[**]	[**]	[**]
(ii)	[**]	[**]	[**]
(iii)	[**]	[**]	[**]
(iv)	[**]	[**]	[**]
(v)	[**]	[**]	[**]
(vi)	[**]	[**]	[**]
(vii)	[**]	[**]	[**]
(viii)	[**]	[**]	[**]
(ix)	[**]	[**]	[**]
(x)	[**]	[**]	[**]
(xi)	[**]	[**]	[**]

(B) Infectious Disease Field

		TYPE I PRODUCT	TYPE II PRODUCT
(i)	[**]	[**]	[**]
(ii)	[**]	[**]	[**]
(iii)	[**]	[**]	[**]
(iv)	[**]	[**]	[**]
(v)	[**]	[**]	[**]
(vi)	[**]	[**]	[**]
(vii)	[**]	[**]	[**]
(viii)	[**]	[**]	[**]

(C) Alzheimer's Disease Field

		TYPE I PRODUCT	TYPE II PRODUCT
(i)	[**]	[**]	[**]
(ii)	[**]	[**]	[**]
(iii)	[**]	[**]	[**]
(iv)	[**]	[**]	[**]
(v)	[**]	[**]	[**]
(vi)	[**]	[**]	[**]
(vii)	[**]	[**]	[**]
(viii)	[**]	[**]	[**]

Each of the above milestones shall be payable once with respect to each Type I Product and each Type II Product that achieves such milestone. In the event that a milestone is skipped for a Product, the corresponding milestone payment shall become due upon the achievement of the next milestone event with respect to such Product. Merck shall notify Idera in writing within fifteen (15) days following the achievement of each milestone, and shall make the appropriate milestone payment to Idera within thirty (30) days after providing such written notice.

5.4 ROYALTIES

5.4.1 Royalties Payable By Merck. Subject to the terms and conditions of this Agreement, Merck shall pay Idera royalties, calculated on a Product-by-Product basis, as set forth in this Section 5.4.1.

(A) Patent Royalties. Subject to the provisions of Section 5.4.1(b), Merck shall pay Idera royalties in an amount equal to a certain percentage of Net Sales of Product(s) by Merck or its Related Parties as set forth below, provided that the sale of such Product(s) would infringe a Valid Patent Claim in the country of sale ("PATENT ROYALTY"):

(I) Type I Products - Oncology Field. Merck shall pay Idera royalties in an amount equal to the following percentage of Net Sales of Type I Products in the Oncology Field by Merck or its Related Parties, provided that the sale of such Products would infringe a Valid Patent Claim in the country of sale:

(AA) [**] percent ([**]%) of worldwide Net Sales in each

Calendar Year up to and including [**] Dollars (USD $[**]);

(BB) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]) up to and including [**] Dollars (USD $[**]); and

(CC) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]).

(II) Type I Products -Alzheimer's Disease Field. Merck shall pay Idera royalties in an amount equal to the following percentage of Net Sales of

Type I Products in the Alzheimer's Disease Field by Merck or its Related Parties, provided that the sale of such Products would infringe a Valid Patent Claim in the country of sale:

(AA) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year up to and including [**] Dollars (USD $[**]);

(BB) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]) up to and including [**] Dollars (USD $[**]); and

(CC) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]).

(III) Type I Products - Infectious Disease Field. Merck shall pay Idera royalties in an amount equal to the following percentage of Net Sales of Type I Products in the Infectious Disease Field by Merck or its Related Parties, provided that the sale of such Products would infringe a Valid Patent Claim in the country of sale:

(AA) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year up to and including [**] Dollars (USD $[**]);

(BB) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]) up to and including [**] Dollars (USD $[**]); and

(CC) [**] percent ([**]%) of worldwide Net Sales in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]).

(IV) Type II Products - All Fields. Merck shall pay Idera royalties in an amount equal to the following percentage of Net Sales of Type II Products in each of the Oncology, Alzheimer's Disease and Infectious Disease Fields by Merck or its Related Parties, provided that the sale of such Products would infringe a Valid Patent Claim in the country of sale:

(AA) [**] percent ([**]%) of worldwide Net Sales in the applicable Field in each Calendar Year up to and including [**] Dollars (USD $[**]);

(BB) [**] percent ([**]%) of worldwide Net Sales in the applicable Field in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]) up to and including [**] Dollars (USD $[**]); and

(CC) [**] percent ([**]%) of worldwide Net Sales in the applicable Field in each Calendar Year for the portion of Net Sales exceeding [**] Dollars (USD $[**]).

(B) Know-How Royalty. Notwithstanding the provisions of Section 5.4.1(a) above, in countries where the sale of Product by Merck or its Related Parties would not

infringe a Valid Patent Claim, Merck shall pay royalty rates that shall be set at [**] percent ([**]%) of the applicable royalty rate determined according to Section 5.4.1(a) hereof ("Know-How Royalty"). Such royalties shall be calculated after first calculating royalties under Section 5.4.1(a) above.

(C) Royalty Tiers; Royalty Term. Royalty tiers pursuant to 5.4.1(a) and 5.4.1(b) shall be calculated based on worldwide Net Sales of each Product, provided that the determination of whether the royalty shall be calculated under 5.4.1(a) or 5.4.1(b) shall be determined on a country-by-country basis. Patent Royalties on each Product at the rates set forth in Section 5.4.1(a) shall continue on a country-by-country basis until the expiration of the later of: (i) the last-to-expire Valid Patent Claim which would otherwise be infringed by sale of Product in such country or (ii) the expiration of Regulatory-Based Exclusivity. Know-How Royalties on each Product at the rates set forth in Section 5.4.1(a) shall continue on a country-by-country basis until ten (10) years from the date of First Commercial Sale of the Product in such country, provided that during any period in which sales of a Competing Product by a third party(ies) are equal to at least [**] percent ([**]%) of the aggregate volume of the Product and Competing Product in such country (the volume as measured by prescriptions or other similar information available in such country), all applicable Know-How Royalties in effect with respect to such Product in such country shall be reduced to [**] percent ([**]%). The foregoing Competing Product reduction applies only in those countries where Know-How Royalties would be payable and does not apply to Patent Royalties.

All royalties are subject to the following conditions:

(I) that only one royalty shall be due with respect to the same unit of Product;

(II) that no royalties shall be due upon the sale or other transfer among Merck or its Related Parties, but in such cases the royalty shall be due and calculated upon Merck's or its Related Party's Net Sales to the first independent Third Party;

(III) no royalties shall accrue on the sale or other disposition of Product by Merck or its Related Parties for use in a Clinical Trial or other clinical trial conducted after the First Commercial Sale of Product; and

(IV) no royalties shall accrue on the disposition of Product in reasonable quantities by Merck or its Related Parties as samples (promotion or otherwise) or as donations (for example, to non-profit institutions or government agencies for a non-commercial purpose) consistent with Merck's practices for its products other than the Product.

5.4.2 Royalties for Bulk Compound. In those cases in which Merck sells bulk Selected Collaboration Compound rather than Product in packaged form, or sells Selected Collaboration Compound and Vaccine separately for use in conjunction with one another, to an independent Third Party, the royalty obligations of Section 5.4.1 shall be applicable to (a) the bulk Selected Collaboration Compound together with other components of the Product sold by Merck or its Related Party (i.e. the royalty shall be payable in respect of the entire Product and not just the Selected Collaboration Compound) or (b) the separately sold

Selected Collaboration Compound and Vaccine (i.e. the royalty shall be

payable in respect of the Selected Collaboration Compound and Vaccine), as the case may be.

5.4.3 Compulsory Licenses. If a compulsory license required pursuant to applicable law or regulation in a country is granted to a Third Party with respect to Product in any country in the Territory with a royalty rate lower than the royalty rate provided by Section 5.4.1, then the royalty rate to be paid by Merck on Net Sales in that country under Section 5.4.1 shall be reduced to the rate paid by the compulsory licensee.

5.4.4 Royalty Abatement; Third Party Licenses. In the event that (a) one or more patent licenses from other Third Parties are required by Merck or its Related Parties in order to make, have made, use, offer to sell, sell or import Selected Collaboration Compound or Product(s) in a country (hereinafter "THIRD PARTY PATENT LICENSES"), including, without limitation, any patent license claiming a Merck Adjuvant and (b) the total royalty percentage rate payable by Merck under the Third Party Patent Licenses (including royalties payable to Idera) exceeds [**] percent ([**]%), the royalty obligation to Idera shall be reduced by the formula set forth in Schedule 5.4.4, provided, however, that in no event shall the royalties owed by Merck to Idera for such Product in such Calendar Quarter in such country be reduced by more than [**] percent ([**]%).

5.5 REPORTS; PAYMENT OF ROYALTY

During the term of this Agreement following the First Commercial Sale of a Product, Merck shall furnish to Idera a quarterly written report for the Calendar Quarter showing the Net Sales on a country-by-country basis of all Products subject to royalty payments sold by Merck and its Related Parties in the Territory during the reporting period, total deductions and the royalties payable under this Agreement. Reports shall be due on the [**] day following the close of each Calendar Quarter. Royalties shown to have accrued by each royalty report shall be due and payable on the date such royalty report is due. Merck shall keep complete and accurate records in sufficient detail to enable the royalties payable hereunder to be determined.

5.6 AUDITS

(A) Upon the written request of Idera and not more than once in each Calendar Year, Merck shall permit an independent certified public accounting firm of nationally recognized standing selected by Idera and reasonably acceptable to Merck, at Idera's expense, to have access during normal business hours to such of the records of Merck as may be reasonably necessary to verify the accuracy of the royalty reports hereunder for any year ending not more than twenty-four (24) months prior to the date of such request. The accounting firm shall disclose to Idera only whether the royalty reports are correct or incorrect and the amount of any discrepancy. No other information shall be provided to Idera.

(B) If such accounting firm correctly identifies a discrepancy made during such period, the appropriate Party shall pay the other Party the amount of the discrepancy within thirty (30) days of the date Idera delivers to Merck such accounting firm's written report so correctly concluding, or as otherwise agreed upon by the Parties. The fees charged by such accounting firm shall be paid by Idera; provided, however, that if such audit uncovers an underpayment of royalties by Merck that exceeds [**] Dollars (USD $[**]) and five percent (5%) of the total royalties owed, then the fees of such accounting firm shall be paid by Merck.

(C) Merck shall include in each sublicense granted by it pursuant to this Agreement a provision requiring the sublicensee to make reports to Merck, to keep and maintain records of sales made pursuant to such sublicense and to grant access to such records by Idera's independent accountant to the same extent required of Merck under this Agreement. Upon the expiration of twenty-four (24) months following the end of any year, the calculation of royalties payable with respect to such year shall be binding and conclusive upon Idera, and Merck and its Related Parties shall be released from any liability or accountability with respect to royalties for such year.

(D) Idera shall treat all financial information subject to review under this Section 5.6(d) or under any sublicense agreement in accordance with the confidentiality and non-use provisions of this Agreement, and shall cause its accounting firm to enter into an acceptable confidentiality agreement with Merck and/or its Related Parties obligating it to retain all such information in confidence pursuant to such confidentiality agreement.

5.7 PAYMENT EXCHANGE RATE

All payments to be made by Merck to Idera under this Agreement shall be made in United States dollars and may be paid by check made to the order of Idera or bank wire transfer in immediately available funds to such bank account in the United States as may be designated in writing by Idera from time to time. In the case of sales outside the United States, the rate of exchange to be used in computing the monthly amount of currency equivalent in United States dollars due Idera shall be made at the monthly rate of exchange utilized by Merck in its worldwide accounting system, prevailing on the third to the last business day of the month preceding the month in which such sales are recorded by Merck.

5.8 INCOME TAX WITHHOLDING

If laws, rules or regulations require withholding of income taxes or other taxes imposed upon payments set forth in this Article 5, Merck shall make such withholding payments as may be required and shall subtract such withholding payments from the payments set forth in this Article 5. Merck shall submit appropriate proof of payment of the withholding taxes to Idera within a reasonable period of time. Merck shall reasonably cooperate with Idera to minimize such withholdings, subject to compliance with all applicable laws and regulations. If Merck had a duty to withhold taxes in connection with any payment it made to Idera under the Agreement but Merck failed to withhold, and such taxes were assessed against and paid by Merck, then Idera will reimburse and hold harmless Merck from and against such taxes (including interest). If Merck makes a claim under this section, it will comply with the obligations imposed by this section as if Merck had withheld taxes from a payment to Idera.

6. REPRESENTATIONS AND WARRANTIES; COVENANTS

6.1 REPRESENTATIONS AND WARRANTIES OF IDERA

Idera represents and warrants to Merck that as of the Effective Date:

(A) to the best of Idera's knowledge, Idera Know-How exists and Idera Patent Rights (i) if granted, are not invalid or unenforceable, in whole or in part; and (ii) if pending, are patentable;

(B) it has all requisite corporate power and authority to enter into this Agreement, to perform its obligations under the Research Program, to grant the licenses to Merck as set forth in Sections 3.1.1 and 3.1.2 and to otherwise perform its obligations under this Agreement;

(C) except as set forth in Schedule 2.12, it has not previously assigned, transferred, conveyed or otherwise encumbered its right, title and interest in Idera Patent Rights, Idera Know-How or Idera Materials;

(D) except as set forth in Schedule 6.1(d), it is the sole and exclusive owner of Idera Patent Rights, Idera Know-How and Idera Materials, all

of which are free and clear of any liens, charges and encumbrances in the Fields, and no other Person has any claim of ownership whatsoever with respect to Idera Patent Rights, Idera Know-How and Idera Materials;

(E) to the best of Idera's knowledge, the exercise of the license granted to Merck with respect to Evaluation Collaboration Compounds and Selected Collaboration Compounds under Idera Technology, including without limitation the research, development, manufacture, use, sale and import of Evaluation Collaboration Compounds and Selected Collaboration Compounds in the Fields does not interfere with or infringe any intellectual property rights owned or possessed by any Third Party claiming or covering the composition of matter or method of use of such Evaluation Collaboration Compounds or Selected Collaboration Compounds;

(F) there are no claims, judgments or settlements against or owed by Idera and to the best of Idera's knowledge, no pending or threatened claims or litigation relating to Idera Patent Rights, Idera Know-How and Idera Materials;

(G) Idera has provided to Merck, except for redacted confidential information, full and complete copies of the Novartis Agreements and The Immune Response Corporation Agreement.

6.2 REPRESENTATIONS AND WARRANTIES OF MERCK

Merck represents and warrants to Idera that as of the date of this Agreement it has all requisite corporate power and authority to enter into this Agreement, to perform its obligations under the Research Program, to grant the licenses set forth in Sections 3.2.1 and 3.2.2 and to otherwise perform its obligations under this Agreement.

6.3 COVENANTS OF IDERA

During the term of this Agreement, Idera covenants and agrees that it will not amend the Novartis Agreements or The Immune Corporation Agreement in any manner that would interfere with or diminish the licenses to Merck as set forth in Sections 3.1.1 and 3.1.2 and other rights granted to Merck and its Affiliates in this Agreement.

7. PATENT PROVISIONS

7.1 FILING, PROSECUTION AND MAINTENANCE OF PATENTS

(A) Idera agrees to prosecute and maintain in the Territory the Idera Background Patent Rights. Such prosecution shall be at Idera's sole expense, discretion, and control. Idera

agrees to file, prosecute and maintain in the Territory, upon appropriate consultation with Merck, the Idera Program Patent Rights licensed to Merck under this Agreement.

(B) With respect to Joint Information and Inventions, the Parties agree to select outside counsel acceptable to both Parties to file prosecute and maintain in the Territory, upon appropriate consultation with the Parties, patent applications and patents with respect to Joint Information and Inventions. The costs, fees and expenses related to patent applications and patents for Joint Information and Inventions shall be shared equally by Idera and Merck.

(C) The Parties agree that whenever possible, Idera Oligonucleotide Inventions and Merck Materials Inventions shall be filed in separate patent applications.

(D) With respect to Idera Information and Inventions, Idera may elect not to file and if so, Idera shall promptly notify Merck and Merck shall have the right to file such patent applications. In such event, Idera shall execute such documents and perform such acts at Idera's expense as may be reasonably necessary to effect an assignment of such Idera

Program Patent Rights to Merck in a timely manner to allow Merck to continue such prosecution or maintenance. In each case, the filing Party shall give the non-filing Party an opportunity to review the text of the application before filing, shall consult with the non-filing Party with respect thereto, and shall supply the non-filing Party with a copy of the application as filed, together with notice of its filing date and serial number. The filing Party shall keep the non-filing Party advised of the status of the actual and prospective patent filings and, upon the non-filing Party's request, shall provide advance copies of any papers related to the filing, prosecution and maintenance of such patent filings. The filing Party shall promptly give notice to the non-filing Party of the grant, lapse, revocation, surrender, invalidation or abandonment of any Patent Rights licensed to the non-filing Party. Except as provided in Section 7.2(b), the filing Party shall be responsible for payment of all costs and expenses related to all filings hereunder.

(E) The Parties shall consult on the prosecution of any patent application(s) within the Idera Patent Rights which includes a claim(s) that covers a Selected Collaboration Compound as a composition of matter, method of manufacture or a method of use. As to such Idera Patent Rights, within [**] days of receipt by Idera, or Idera's prosecution counsel, of any United States or European patent office communication(s), Idera shall use reasonable efforts to provide to Merck a copy of the communication and a draft of a response thereto. Merck shall use reasonable efforts to promptly deliver comments on the communication and draft response to Idera, but in no event later than [**] days after receiving Idera's draft response. Thereafter, the Parties shall in good faith consult on Merck's comments and the drafting of the response to the patent office. The time periods in this Section 7.1(e) may be extended by mutual agreement of the Parties.

7.2 OPTION OF MERCK TO PROSECUTE AND MAINTAIN PATENTS

(A) Idera shall give prompt written notice to Merck of its desire to cease prosecution (including the filing of continuations and divisional applications) and/or maintenance of Idera Background Patent Rights on a country by country basis in the Territory and, in such case, shall permit Merck, in its sole discretion, to continue prosecution or maintenance of such Idera Background Patent Rights, in Idera's name, at Merck's own expense. Idera shall provide Merck with any Powers of Attorney necessary for Merck to conduct such prosecution or maintenance. If Merck elects to continue such prosecution or maintenance of such Idera Background Patent Rights, such patents or patent

applications shall no longer constitute Idera Patent Rights for purposes of determining Patent Royalties under this Agreement.

(B) For patent applications within the Idera Patent Rights, Merck and Idera shall consult on, and Merck may request, the filing of a continuation or divisional patent application(s) having a claim(s) that solely covers a Selected Collaboration Compound as a composition of matter, a method of manufacture or a method of use. If Merck requests the filing of such continuation or divisional application, then Merck shall reimburse Idera for the costs, fees and expenses of filing, prosecuting, and maintaining said application. Merck and Idera shall consult in good faith on the prosecution of such applications. Any continuation or divisional application(s) requested hereunder by Merck will remain within the Idera Patent Rights.

7.3 INTERFERENCE, OPPOSITION, REEXAMINATION AND REISSUE

(A) Idera shall inform Merck of any request for, or filing or declaration of, any interference, opposition, reissue or reexamination of Idera Patent Rights within [**] days of becoming aware of such event. Merck and Idera shall thereafter consult and cooperate fully to determine a course of action with respect to any such proceeding. In the case of any such proceedings on Idera Program Patent Rights, Merck shall have

the right to review and approve any submission to be made in connection with such proceeding. In the case of any such proceedings on Idera Background Patent Rights, to the extent that Idera's attorney-client privilege is not breached and to the extent permissible under Idera's express obligations under Idera's agreements with Third Parties, Merck shall have the right to review and comment on any submission to be made in connection with such proceeding.

(B) Idera shall not initiate any reexamination, interference or reissue proceeding of Idera Program Patent Rights without the prior written consent of Merck, which consent shall not be unreasonably withheld.

(C) In connection with any interference, opposition, reissue, or reexamination proceeding of Idera Patent Rights, Merck and Idera will cooperate fully and will provide each other with any information or assistance that either Party may reasonably request. Idera shall keep Merck informed of developments in any such action or proceeding, including, without limitation and to the extent permissible by law, consultation on and approval of any settlement, the status of any settlement negotiations and the terms of any offer related thereto.

(D) The Parties shall share equally the expense of any interference, opposition, reexamination, or reissue proceeding relating to Idera Patent Rights that claim or cover Selected Collaboration Compounds.

(E) If an interference, opposition, reexamination or reissue proceeding involves an Idera Program Patent Right in a Selected Collaboration Compound, Merck may, at its discretion, direct the course of action with respect to such proceeding to the extent any action impacts Merck's interest in the Selected Collaboration Compound.

7.4 ENFORCEMENT AND DEFENSE

(A) Idera shall give Merck prompt written notice of (i) any infringement of Idera Background Patent Right in any of the Fields, (ii) any infringement of Idera Program Patent Rights, or (iii) any misappropriation or misuse of Idera Know-How.

(B) In the case of infringement of Idera Program Patent Rights or misappropriation or misuse of Idera Know-How, Merck and Idera shall consult and cooperate fully to determine a course of action, including but not limited to, the commencement of legal action by either Merck or Idera or both Parties, to terminate any infringement of Idera Program Patent Rights or any misappropriation or misuse of Idera Know-How. However, Idera, upon notice to Merck, shall have the first right (i) to initiate and prosecute such legal action at its own expense and subject to Merck's written consent, initiate and prosecute such legal action in the name of Idera and Merck and (ii) to control the defense of any declaratory judgment action relating to Idera Program Patent Rights or Idera Know-How. In either such case, Idera shall promptly inform Merck if it elects not to exercise such first right and Merck shall thereafter have the right to either initiate and prosecute such action or to control the defense of such declaratory judgment action in the name of Merck and subject to Idera's written consent, in the name of Merck and Idera. For any case that Merck either initiates or prosecutes, Merck shall reasonably consider the rights and interests of Idera. Each Party shall have the right to be represented by counsel of its own choice.

(C) In the case of infringement of Idera Background Patent Rights outside the Fields, Idera shall in its sole discretion, determine a course of action, including but not limited to, the commencement of legal action, to terminate any such infringement of Idera Background Patent Rights. Idera shall have the right to initiate and prosecute such legal action at its own expense and in the name of Idera, or to control the defense of any declaratory judgment action relating to Idera Background Patent Rights. For any case that Idera either initiates, prosecutes or participates in, Idera shall reasonably consider the rights and interests of Merck and regularly confer with Merck regarding the status of such litigation. To the extent that

Idera's attorney-client privilege is not breached and to the extent permissible under Idera's express obligations under Idera's agreements with Third Parties, Idera shall also provide Merck with the opportunity to review and comment on filings and the conduct of such litigation.

(D) In the case of infringement of Idera Background Patent Right in a Selected Collaboration Compound within any of the Fields, Merck and Idera shall consult and cooperate fully to determine a course of action, including but not limited to, the commencement of legal action by either Merck or Idera or both Parties, to terminate any such infringement of Idera Background Patent Rights. However, Idera, upon written notice to Merck, shall have the first right to initiate and prosecute such legal action at its own expense and subject to Merck's written consent, in the name of Idera and Merck, or to control the defense of any declaratory judgment action relating to Idera Program Patent Rights or Idera Know-How. In such case, Idera shall promptly inform Merck if it elects not to exercise such first right and Merck shall thereafter have the right to either initiate and prosecute such action or to control the defense of such declaratory judgment action in the name of Merck and, subject to Idera's written consent, in the name of Merck and Idera. For any action that Merck either initiates or prosecutes, Merck shall reasonably consider the rights and interests of Idera. Each Party shall have the right to be represented by counsel of its own choice.

(E) In the event that Idera elects not to initiate and prosecute an action as provided in Sections 7.4 (b) and (d) and Merck elects to do so, the costs of any agreed-upon course of action to terminate infringement of Idera Patent Rights or misappropriation or misuse of Idera Know-How, including without limitation, the costs of any legal action commenced or the defense of any declaratory judgment, shall be paid by Merck.

(F) For any action to terminate any infringement of Idera Patent Rights or any misappropriation or misuse of Idera Know-How, in the event that Merck is unable to initiate or prosecute such action solely in its own name, Idera will join such action voluntarily and will execute and cause its Affiliates to execute all documents necessary for Merck to initiate litigation and to prosecute and maintain such action. In connection with any action, Merck and Idera will cooperate fully and will provide each other with any information or assistance that either Party may reasonably request. Each Party shall keep the other informed of developments in any action or proceeding, including, without limitation and to the extent permissible by law, consultation on and approval of any settlement, the status of any settlement negotiations and the terms of any offer related thereto.

(G) Any recovery obtained by either Merck or Idera or both Parties in connection with or as a result of any action for (i) infringement of Idera Program Patent Rights, (ii) misappropriation or misuse of Idera Know-How or (iii) infringement of Idera Background Patent Rights in any of the Fields, whether by settlement or otherwise, shall be shared in the following order of priority:

(I) [**];

(II) [**]; and

(III) [**].

7.5 COOPERATION; PATENT TERM EXTENSION AND RESTORATION

The Parties agree to cooperate and to take reasonable actions to maximize the protections available under the provisions of 35 U.S.C. 103(c) for U.S. patents/patent applications. The Parties hereto shall cooperate with each other, including without limitation, to provide necessary information and assistance as the other Party may reasonably request, in obtaining patent term extension, restoration or supplemental protection certificates or their equivalents in any country in the Territory where applicable to Idera Patent Rights. In the event that elections with respect to obtaining such

patent term restoration are to be made, Merck shall have the right to make the election and Idera agrees to abide by such election. All costs, fees and expenses incurred in obtaining patent term extensions, restorations or supplemental protection certificates shall be borne by Idera, unless such election was made by Merck.

8. TERM AND TERMINATION

8.1 TERM AND EXPIRATION

This Agreement shall be effective as of the Effective Date and unless terminated earlier pursuant to Sections 8.2 or 8.3 below, this Agreement shall continue in effect until expiration of all royalty obligations hereunder. Upon expiration of this Agreement, Merck's licenses pursuant to Sections 3.1.1 and 3.1.2 shall become fully paid-up, perpetual licenses.

8.2 TERMINATION BY MERCK

Notwithstanding anything contained herein to the contrary, Merck shall have the right to terminate this Agreement at any time in its sole discretion by giving one hundred eighty (180)

days' advance written notice to Idera during the Research Program Term and ninety (90) days' advance written notice to Idera once the Research Program Term has expired. No later than [**] days after the effective date of such termination, each Party shall return or cause to be returned to the other Party all Information in tangible form received from the other Party and all copies thereof; provided, however, that Idera may retain any Information reasonably necessary for such Party's continued practice under any license(s) which do not terminate pursuant to this Section 8.2, and each Party may keep one copy of Information received from the other Party in its confidential files for record purposes to ensure its compliance with the terms of this Agreement. In the event of termination under this Section 8.2: (i) each Party shall pay all amounts then due and owing as of the termination date; and (ii) except for the license rights set out in Section 3.2.1 which shall become a fully paid-up, perpetual license and the surviving provisions set forth in Section 8.4 hereof, the rights and obligations of the parties hereunder shall terminate as of the date of such termination.

8.3 TERMINATION FOR CAUSE

8.3.1 Cause for Termination. This Agreement may be terminated at any time during the term of this Agreement:

(A) upon written notice by either Party if the other Party is in breach of its material obligations hereunder by causes and reasons within its control and has not cured such breach within [**] days after notice requesting cure of the breach; provided, however, that in the event of a good faith dispute with respect to the existence of a material breach, the [**] day cure period shall be tolled until such time as the dispute is resolved pursuant to Section 10.6 hereof;

(B) by either Party upon the filing or institution of bankruptcy, reorganization, liquidation or receivership proceedings, or upon an assignment of a substantial portion of the assets for the benefit of creditors by the other Party; provided, however, that in the case of any involuntary bankruptcy proceeding such right to terminate shall only become effective if the Party consents to the involuntary bankruptcy or such proceeding is not dismissed within one hundred twenty (120) days after the filing thereof; and

(C) (i) each Party shall pay all amounts then due and owing as of the termination date; and (ii) except as provided in Section 8.3.2 and except for the surviving provisions set forth in this Article 8 hereof, the rights and obligations of the Parties hereunder shall terminate as of the date of such termination.

8.3.2 Effect of Termination for Cause on License; Section 365(n) Rights

(A) If Idera terminates this Agreement under Section 8.3.1(a) and an arbitration award has been granted pursuant to Section 10.6 finding that Merck has breached a material obligation, (i) Idera's license pursuant to Section 3.2.1 shall become a fully paid-up, perpetual license; (ii) Merck's licenses pursuant to Sections 3.1.1 and 3.1.2 shall terminate as of such termination date; (iii) Merck shall pay all amounts then due and owing as of the terminate date; and (iv) Merck shall, within [**] days after the effective date of such termination, return or cause to be returned to Idera all Information in tangible form and all substances or compositions delivered or provided by Idera, including Idera Material, as well as any other material provided by Idera in any medium.

(B) If Merck terminates this Agreement under Section 8.3.1(a) and an arbitration award has been granted pursuant to Section 10.6 finding that Idera has breached a material obligation, Merck's licenses pursuant to Sections 3.1.1 and 3.1.2 shall become fully paid-up, perpetual licenses and Merck's financial obligations pursuant to Sections 5.3 and 5.4 shall remain in full force and effect; provided, however, that Merck may (i) offset against such financial obligations the amount of any damages resulting from such material breach by Idera that are awarded to Merck pursuant to Section 10.6; (ii) in the case of Idera's breach of a material obligation that relates to or arises out of Idera's obligations under the Research Program or Idera's exclusive efforts under Section 2.12, reduce by [**]% any milestone and royalty payments that may become due and owing; and (iii) in the event such termination occurs before the one year anniversary of the end of the Research Program Term, Merck shall be entitled to exercise its right under Section 2.8.3 to select up to [**] Selected Collaboration Compounds targeting TLR 9, along with [**] back-up Selected Collaboration Compounds, and [**] Selected Collaboration Compounds targeting TLR 7, TLR 8 or both TLR 7 and TLR 8, along with [**] back-up Selected Collaboration Compounds, within 180 days of the date of termination by Merck. Idera shall, within [**] days after the effective date of such termination, return or cause to be returned to Merck all Information in tangible form, and all substances or compositions delivered or provided by Merck, including Merck Material, as well as any other material provided by Merck in any medium.

(C) Upon termination of this Agreement by Merck pursuant to Section 8.2, or by Idera pursuant to Section 8.3.1(a), Merck and its Affiliates, sublicensees and distributors shall be entitled, during the twelve (12) month period immediately following the effective date of termination, to finish any work-in-progress and to sell any Products remaining in inventory, in accordance with the terms of this Agreement.

(D) All licenses and rights to licenses granted under or pursuant to this Agreement to either Party are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the "CODE"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Code. The Parties agree that the licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Code, and that upon commencement of a bankruptcy proceeding by or against the licensor under the Code, the licensee shall be entitled to a complete duplicate of, or complete access to (as the licensee deems appropriate), any such intellectual property and all embodiments of such intellectual property. Such intellectual property and all embodiments thereof shall be promptly delivered to the licensee (i) upon any such commencement of a bankruptcy proceeding upon written request therefor by the licensee, unless the licensor elects to continue to perform all of its obligations under this Agreement or (ii) if not delivered under (i) above, upon the rejection of this

Agreement by or on behalf of the licensor upon written request therefor by the licensee.

The foregoing provisions of this Section 8.3.2(d) are without prejudice to any rights the licensee may have arising under the Code or other applicable law.

8.4 EFFECT OF EXPIRATION OR TERMINATION; SURVIVAL

Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination. Any expiration or termination of this Agreement shall be without prejudice to the rights of either Party against the other accrued or accruing under this Agreement prior to expiration or termination, including without limitation, the obligation to pay royalties for Product(s) or Selected Collaboration Compound(s) sold prior to such expiration or termination. The provisions of Article 4 shall survive the expiration or termination of this Agreement and shall continue in effect for [**]. In addition, the provisions of Articles 1, 7, 8 and 9, and Sections 2.9, 3.7, 10.4 through 10.7, 10.9 and 10.12 shall survive any expiration or termination of this Agreement.

In the event of termination of any of Merck's licenses hereunder, Merck shall be responsible for notifying each sublicensee of such termination and for ensuring that such sublicensee discontinues its practice of the rights sublicensed to it under the licenses granted to Merck in this Agreement. In the event of a material default by any sublicensee under a sublicense agreement, Merck will inform Idera and take such action, after consultation with Idera, that in Merck's reasonable business judgment will address such default.

9. INDEMNIFICATION

9.1 INDEMNIFICATION BY MERCK

Subject to the limitation of liability set forth in Section 9.4, Merck agrees to defend Idera, its Affiliates and their respective directors, officers, employees and agents at Merck's cost and expense, and shall indemnify and hold harmless Idera and its Affiliates and their respective directors, officers, employees and agents from and against any liabilities, losses, costs, damages, fees or expenses arising out of any Third Party claim relating to (i) any breach by Merck of any of its representations, warranties or material obligations pursuant to this Agreement or (ii) personal injury and property damage resulting from the development, manufacture, use or sale of Selected Collaboration Compound(s) or Product(s) by Merck or its Related Parties, except to the extent such liabilities, losses, costs, damages, fees or expenses result from the gross negligence or willful misconduct of Idera.

9.2 INDEMNIFICATION BY IDERA

Subject to the limitation of liability set forth in Section 9.4, Idera agrees to defend Merck, its Affiliates and their respective directors, officers, employees and agents at Idera's cost and expense, and shall indemnify and hold harmless Merck and its Affiliates and their respective directors, officers, employees and agents from and against any liabilities, losses, costs, damages, fees or expenses arising out of any Third Party claim relating to (i) any breach by Idera of any of its representations, warranties or material obligations pursuant to this Agreement or (ii) personal injury and property damage resulting from the development, manufacture, use or sale of Non-Selected Collaboration Compound(s) or product(s) containing such Non-Selected Collaboration Compounds by Idera or its sublicensees pursuant to Section 3.2.1, except to the extent such liabilities, losses, costs, damages, fees or expenses result from the gross negligence or willful misconduct of Merck.

9.3 CLAIMS FOR INDEMNIFICATION

A Person entitled to indemnification under this Article 9 (an "INDEMNIFIED PARTY") shall give prompt written notification to the Person from whom indemnification is sought (the "INDEMNIFYING PARTY") of the commencement of

any action, suit or proceeding relating to a

Third Party claim for which indemnification may be sought or, if earlier, upon the assertion of any such claim by a Third Party (it being understood and agreed, however, that the failure by an Indemnified Party to give notice of a Third-Party claim as provided in this Section 9.3 shall not relieve the Indemnifying Party of its indemnification obligation under this Agreement except and only to the extent that such Indemnifying Party is actually damaged as a result of such failure to give notice). Within thirty (30) days after delivery of such notification, the Indemnifying Party may, upon written notice thereof to the Indemnified Party, assume control of the defense of such Third Party claim with counsel reasonably satisfactory to the Indemnified Party. If the Indemnifying Party does not assume control of such defense, the Indemnified Party shall control such defense. The Party not controlling such defense may participate therein at its own expense. The Party controlling such defense shall keep the other Party advised of the status of such action, suit, proceeding or claim and the defense thereof and shall consider recommendations made by the other Party with respect thereto. The Indemnified Party shall not agree to any settlement of such action, suit, proceeding or claim without the prior written consent of the Indemnifying Party, which shall not be unreasonably withheld, delayed or conditioned. The Indemnifying Party shall not agree to any settlement of such action, suit, proceeding or claim or consent to any judgment in respect thereof that does not include a complete and unconditional release of the Indemnified Party from all liability with respect thereto or that imposes any liability or obligation on the Indemnified Party without the prior written consent of the Indemnified Party.

9.4 LIMITATION OF LIABILITY

IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE, LOSS OR INACCESSIBILITY OF DATA, OR INTERRUPTION OF BUSINESS, ARISING UNDER OR RELATING TO THIS AGREEMENT OR THE SUBJECT MATTER HEREOF, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

10. MISCELLANEOUS

10.1 FORCE MAJEURE

Neither Party shall be held liable to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in performing any obligation under this Agreement to the extent that such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, potentially including, but not limited to, embargoes, war, acts of war (whether war be declared or not), acts of terrorism, insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, fire, floods, or other acts of God, or acts, omissions or delays in acting by any governmental authority or the other Party. The affected Party shall notify the other Party of such force majeure circumstances as soon as reasonably practical, and shall promptly undertake all reasonable efforts necessary to cure such force majeure circumstances.

10.2 ASSIGNMENT/ CHANGE OF CONTROL

10.2.1 Except as provided in this Section 10.2, this Agreement may not be assigned or otherwise transferred, nor may any right or obligation hereunder be assigned or transferred, by either Party without the consent of the other Party.

10.2.2 Merck may, without Idera's consent, assign this Agreement and its rights and obligations hereunder in whole or in part to a Merck Affiliate or in connection with a Change of Control.

10.2.3 Idera may, without Merck's consent, assign this Agreement and its rights and obligations hereunder in whole in connection with a Change in Control; provided, however, that Idera must notify Merck at least [**] days prior to completion of any such Change of Control except that in the case of a Change of Control as set forth in Section 1.8(iii) only, Idera shall provide Merck such notice [**] days after Idera becomes aware of such Change of Control.

In connection with such Competing Pharma Change of Control, Merck shall have the right, at any time after receipt of such notice, to:

(A) terminate the Research Program and all FTE funding, in which event the Parties shall be released of their respective obligations under Article 2 and the non-exclusive license granted by Merck to Idera under Section 3.2.2 under this Agreement shall terminate;

(B) limit its obligations to provide Idera royalty related reports pursuant to Section 5.5 to reporting only Merck's worldwide royalty obligations;

(C) convert without penalty the exclusive license granted by Merck to Idera under Section 3.2.1 of this Agreement into a non-exclusive license; and/or

(D) require Idera, including the Change of Control party, to adopt reasonable procedures to be agreed upon in writing with Merck to prevent the disclosure of all Information of Merck and its Affiliates and other information with respect to the development of Evaluation Collaboration Compounds and Selected Collaboration Compounds (collectively "SENSITIVE INFORMATION") beyond Idera personnel having access to and knowledge of Sensitive Information prior to the Change of Control and to control the dissemination of Sensitive Information disclosed after the Change of Control. The purposes of such procedures shall be to strictly limit such disclosures to only those personnel having a need to know Sensitive Information in order for Idera to perform its obligations under this Agreement and to prohibit the use of Sensitive Information for competitive reasons against Merck and its Related Parties, including without limitation, the use of Sensitive Information for the development or commercialization of competing products.

10.2.4 Any permitted assignee shall assume all assigned obligations of its assignor under this Agreement. Any attempted assignment not in accordance with this Section 10.2 shall be void.

10.3 SEVERABILITY

If any one or more of the provisions contained in this Agreement is held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby, unless the absence of the invalidated provision(s) adversely affects the substantive rights of the Parties. The Parties shall in such an instance use their best efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision(s) which, insofar as practical, implement the purposes of this Agreement.

10.4 NOTICES

All notices which are required or permitted hereunder shall be in writing and sufficient if delivered personally, sent by facsimile (and promptly confirmed by personal delivery, registered or certified mail or overnight courier), sent by nationally-recognized overnight courier or sent by registered or certified mail, postage prepaid, return receipt requested, addressed as follows:

If to Idera, to: Idera Pharmaceuticals, Inc.

345 Vassar Street
Cambridge, MA 02139
Attention: Chief Executive Officer
Facsimile: (617) 679-5572

and Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, MA 02109
Attention: David E. Redlick, Esq.
Facsimile: (617) 526-5000

If to Merck, to: Merck & Co., Inc.
One Merck Drive (WS 3A-65)
P.O. Box 100
Whitehouse Station, NJ 08889-0100
Attention: Office of Secretary
Facsimile: (908) 735-1246

and Merck & Co., Inc.
One Merck Drive (WS 2A-30)
P.O. Box 100
Whitehouse Station, NJ 08889-0100
Attention: Chief Licensing Officer
Facsimile: (908) 735-1214

or to such other address(es) as the Party to whom notice is to be given may have furnished to the other Party in writing in accordance herewith. Any such notice shall be deemed to have been given: (a) when delivered, if personally delivered or sent by facsimile on a business day (or if delivered or sent on a non-business day, then on the next business day); (b) on the business day after dispatch, if sent by nationally-recognized overnight courier; or (c) on the fifth (5th) business day following the date of mailing, if sent by mail.

10.5 APPLICABLE LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of New York and the patent laws of the United States, without reference to any rules of conflict of laws or renvoi.

10.6 DISPUTE RESOLUTION

10.6.1 The Parties shall negotiate in good faith and use reasonable efforts to settle any dispute, controversy or claim arising from or related to this Agreement or the breach thereof. If

the Parties do not fully settle, and a Party wishes to pursue the matter, each such dispute, controversy or claim that is not an "Excluded Claim" shall be finally resolved by binding arbitration in accordance with the Commercial Arbitration Rules and Supplementary Procedures for Large Complex Disputes of the American Arbitration Association ("AAA"), and judgment on the arbitration award may be entered in any court having jurisdiction thereof.

10.6.2 The arbitration shall be conducted by a panel of three persons experienced in the pharmaceutical business. Within thirty (30) days after initiation of arbitration, each Party shall select one person to act as arbitrator; and the two Party-selected arbitrators shall select a third arbitrator within thirty (30) days of their appointment. If the arbitrators selected by the Parties are unable or fail to agree upon the third arbitrator, the third arbitrator shall be appointed by the AAA. The place of arbitration shall be New York, New York, and all proceedings and communications shall be in English.

10.6.3 Either Party may apply to the arbitrators for interim injunctive relief until the arbitration award is rendered or the controversy is otherwise resolved. Either Party also may, without waiving any remedy under this Agreement, seek from any court having jurisdiction any injunctive or provisional relief necessary to protect the rights or property of that Party pending the arbitration award. The arbitrators

shall have no authority to award punitive or any other type of damages not measured by a Party's compensatory damages. Each Party shall bear its own costs and expenses and attorneys' fees and an equal share of the arbitrators' fees and any administrative fees of arbitration.

10.6.4 Except to the extent necessary to confirm an award or as may be required by law, neither a Party nor an arbitrator may disclose the existence, content, or results of an arbitration without the prior written consent of both Parties. In no event shall an arbitration be initiated after the date when commencement of a legal or equitable proceeding based on the dispute, controversy or claim would be barred by the applicable New York statute of limitations.

10.6.5 The Parties agree that, in the event of a dispute over the nature or quality of performance under this Agreement, neither Party may terminate this Agreement until final resolution of the dispute through arbitration or other judicial determination. The Parties further agree that any payments made pursuant to this Agreement pending resolution of the dispute shall be refunded if an arbitrator or court determines that such payments are not due.

10.6.6 As used in this Section 10.6, the term "EXCLUDED CLAIM" shall mean a dispute, controversy or claim that concerns (a) the validity or infringement of a patent, trademark or copyright; or (b) any antitrust, anti-monopoly or competition law or regulation, whether or not statutory.

10.7 ENTIRE AGREEMENT; AMENDMENTS

This Agreement, together with the Stock Purchase Agreement and Registration Rights Agreement, contains the entire understanding of the Parties with respect to the subject matter hereof. Any other express or implied agreements and understandings, either oral or written, with respect to the subject matter hereof are superseded by the terms of this Agreement. Notwithstanding the foregoing, the Material Transfer Agreement dated January 23, 2006 between Idera and Merck, as amended on July 28, 2006 and August 16, 2006, shall remain in full force

and effect in accordance with its terms with respect to transfers of materials and disclosures of information governed thereby through the Effective Date, but shall be superseded by this Agreement with respect to such transfers and disclosures occurring on or after the Effective Date. This Agreement may be amended, or any term hereof modified, only by a written instrument duly executed by authorized representatives of both Parties hereto.

10.8 AFFILIATES

Merck may perform its obligations hereunder personally or through one of more Affiliates, although Merck shall nonetheless be solely responsible for the performance of its Affiliates. Merck shall not permit any of its Affiliates to commit any act (including any act or omission) which Merck is prohibited thereunder from committing directly.

10.9 HEADINGS

The captions to the several Articles and Sections hereof are not a part of this Agreement, but are merely for convenience to assist in locating and reading the several Articles and Sections hereof.

10.10 INDEPENDENT CONTRACTORS

It is expressly agreed that Idera and Merck shall be independent contractors and that the relationship between the Parties shall not constitute a partnership, joint venture or agency. Neither Idera nor Merck shall have the authority to make any statements, representations or commitments of any kind, or to take any action, which shall be binding on the other Party, without the prior written consent of the other Party.

10.11 WAIVER

The waiver by either Party hereto of any right hereunder, or of any failure of the other Party to perform, or of any breach by the other Party, shall not be deemed a waiver of any other right hereunder or of any other breach by or failure of such other Party, whether of a similar nature or otherwise.

10.12 CUMULATIVE REMEDIES

No remedy referred to in this Agreement is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to in this Agreement or otherwise available under law.

10.13 WAIVER OF RULE OF CONSTRUCTION

Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting Party shall not apply.

10.14 COUNTERPARTS

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

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IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

MERCK & CO., INC.	IDERA PHARMACEUTICALS, INC.
By: /s/ Peter S. Kim	By: /s/ Sudhir Agrawal
Peter S. Kim	Sudhir Agrawal
President, Merck Research Laboratories	Chief Executive Officer

SCHEDULE 1.18

EVALUATION CRITERIA

Evaluation Criteria for Compounds Targeting TLR 9

[**]

Evaluation Criteria for Compounds Targeting TLR 7, TLR 8 and/or TLR 7 and TLR 8

[**]

SCHEDULE 1.25

IDERA BACKGROUND PATENT RIGHTS

	PCT NATIONALIZATION	PATENT / APPLICATION	PATENT / PUBLICATION	PATENT / GRANT

IDERA NUMBER	CONTINUATION	COUNTRY	TITLE	STATUS	APPLICATION NUMBER	DATE	NUMBER	DATE
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SCHEDULE 1.29

IDERA MATERIALS

(A)

[**]

(B)

Any other IMO to be provided by Idera to Merck pursuant to Schedule 1.18 or Schedule 2.1.

SCHEDULE 1.50

MERCK MATERIALS

To be provided within thirty (30) days of the Execution Date.

SCHEDULE 1.73

SELECTION CRITERIA

The criteria set forth in this Schedule 1.73 is subject to the sole discretion of Merck and is listed here as a guideline only.

I. ONCOLOGY FIELD

[**]

II. INFECTIOUS DISEASE FIELD

Formulation

[**]

III. ALZHEIMER'S DISEASE FIELD

Formulation

[**]

SCHEDULE 2.1

RESEARCH PROGRAM

BACKGROUND

Toll like receptor (TLR) agonists have been shown to be potent adjuvants to vaccines for a variety of indications in a number of experimental systems as well as in the clinic. In particular, agonists to TLR7, TLR8 and TLR9 have elicited a great deal of attention in view of the key role played by these receptors in modulating the immune response and in determining the amplitude and efficacy of immunization regimens. Idera structure-activity relationship studies have identified a portfolio of oligodeoxynucleotides as agonists of TLR9 that induce potent Th-1 immune responses. These studies have provided the insights of design and development of nucleic acid-based TLR agonists.

Single-stranded viral RNA and certain endogenous RNAs are natural ligands for TLRs7 and 8. Delivery of RNA or oligoribonucleotides as agonists of TLR7/8 are limited due to their instability against nucleases and RNases. Idera has identified novel RNA structures that [**]. These oligoribonucleotides contain [**]. These RNA compounds are referred to as SIMRA (Stabilized Immune Modulatory RNA). Idera studies have shown that these SIMRA compounds activate TLR8 or TLR7

and 8 depending on the [**]. SIMRA compounds have [**]. Specific recognition of SIMRA compounds by TLR7 and 8 is modulated by the [**].

Based on these initial designs, [**]. These novel [**] may be provided by either MRL or Idera. A key objective of the Research Plan is to determine the impact of Idera's proprietary TLR agonists, as well as TLR agonists derived jointly under the research collaboration, on the immunogenicity and efficacy of Merck's proprietary vaccines for Cancer, Infectious Disease (ID) and Alzheimer (AD) [**]. Another objective of the Research Plan is to [**].

PROPOSAL

[**] under the Research Plan. Idera will [**]. Merck will [**]. Additionally [**].

SPECIFIC EXPERIMENTAL PLAN

1. [**] SIMRA COMPOUNDS WILL BE [**] UNDER THE RESEARCH PLAN.

   (a) Merck will [**] Idera.

      i. MRL (RY and IRBM) will [**].

      ii. Following [**], MRL and Idera will [**].

   (b) SIMRA compounds will be [**].

      [**] involves the following steps

      - Synthesis of nucleoside phosphoramidites

      - Synthesis of oligos on automated RNA/DNA synthesizers,

      - Purification using HPLC techniques,

      - Desalting/Lyophilization,

      - Analysis and characterization by:

         - Capillary gel electrophoresis,

         - Ion-exchange HPLC,

         - PAGE,

         - MALDI-TOF Mass spectrometry.

2. IDERA WILL [**].

   (a) [**] SIMRA Compounds synthesized will be [**].

      - [**] against [**]

      - [**] cytokine profiles [**] using luminex multiplex assay

   (b) Depending on the [**] compounds [**] of the compounds will be synthesized [**] and [**]

   Based on the [**] Idera and Merck [**] will be [**] by Idera to [**] with [**] in [**] will be [**] at Merck.

   - [**], in order to conduct the experiments indicated in the Research Program.

   - Additionally, [**] including chemical structure.

   It is projected that [**] by Idera, from which [**]. The [**] at Merck's discretion.

3. MERCK WILL TEST THE TLR7, TLR8, TLR7/8 AND TLR9 AGONISTS PROVIDED BY IDERA IN COMBINATION WITH MERCK PROPRIETARY CANCER, ID, AND AD VACCINES IN APPROPRIATE [**] MODELS.

(a) Perform evaluation studies [**]. Merck expects to [**] depending on the Field.

(b) Evaluation experiments will [**] as follows:

Cancer Vaccines

Synergy between [**]. If appropriate, [**] will also be [**].

[**] vaccination will take place by i.m. (DNA-EP/Ad) or i.d. (peptides) immunization. [**] according to [**] procedures to [**].

ID Vaccines

Selected Idera's TLR agonists will be [**] (based on, but not restricted to, [**]) and/or in [**].

AD Vaccines

Selected Idera's TLR agonists will be [**] and/or [**].

If appropriate, [**].

ENDPOINT:

The [**] will be judged on the basis of [**].

ID Vaccines

Immunogenicity markers will include, but will not be restricted to: [**]. The nature of a chosen marker(s) will depend on [**]. Whenever possible, [**] will be assessed for [**].

Cancer Vaccines

Immunogenicity markers will include, but will not be restricted to: [**].

AD Vaccines

The markers will primarily include: [**].

Other factors that will [**].

4. MERCK WILL MONITOR THE [**].

(a) The [**] will be assessed [**] for their ability to induce [**] as measured by ELISA, MesoScale, Multiplex or qPCR analyses, or to [**]. If appropriate, [**].

(b) At [**] may similarly be evaluated [**].

(c) [**] will be evaluated for the ability to [**].

(d) If appropriate, [**] to verify whether [**] effects can be obtained.

SCHEDULE 2.3.2

DEPLOYMENT OF FTES

Confidential Materials omitted and filed separately with the

Securities and Exchange Commission.

[**]

SCHEDULE 2.12

IDERA OBLIGATIONS

UNDER THE IMMUNE RESPONSE CORPORATION AGREEMENT

Idera has granted a non-exclusive license under Idera's intellectual property rights to The Immune Response Corporation to research, develop and commercialize IMO-2055 for use as an adjuvant in vaccine products for the treatment and prevention of HIV. [**].

SCHEDULE 4.4

FORM OF PRESS RELEASE

(MERCK LOGO)

IDERA PHARMACEUTICALS
Media: Kari Watson
(508) 647-0209

Investors: Kelly Luethje
(617) 679-5519

MERCK & CO., INC.
Media: Janet Skidmore
(267) 305-7715

Investors: Graeme Bell
(908) 423-5185

MERCK & CO., INC. AND IDERA PHARMACEUTICALS SIGN COLLABORATION AGREEMENT INCORPORATING IDERA'S TOLL-LIKE RECEPTOR AGONISTS IN MERCK'S VACCINE PROGRAMS

CAMBRIDGE, MASS. AND WHITEHOUSE STATION, N.J., DEC. 11, 2006 - Merck & Co., Inc. (NYSE: MRK) and Idera Pharmaceuticals (AMEX: IDP) announced today that they have formed a broad collaboration to research, develop and commercialize Idera's Toll-like Receptor (TLR) agonists by incorporating them in therapeutic and prophylactic vaccines being developed by Merck for oncology, infectious diseases and Alzheimer's disease.

"Our collaboration with Idera is part of Merck's long-standing commitment to research and develop novel vaccines and medicines that can improve human health," said Peter S. Kim, Ph.D., president, Merck Research Laboratories. "We believe that vaccines combined with TLR-targeted compounds offer great promise in treating and preventing serious diseases, and look forward to integrating Idera's TLR agonists into our vaccine development programs."

Under the terms of the agreement, Merck will receive worldwide exclusive rights to a number of Idera's agonist compounds targeting TLR 7, 8 and 9 for use in combination with Merck's therapeutic and prophylactic vaccines under development for oncology, infectious diseases and Alzheimer's disease. Merck and Idera will engage in a two-year research and development collaboration to generate novel agonists targeting TLR 7 and TLR 8 and incorporating both

Merck and Idera chemistry for use in the licensed fields.

Merck has agreed to pay an upfront license fee of $20 million to Idera and to purchase $10 million of its common stock at $5.50 per share. In addition, Merck will fund the research and development collaboration. Idera is eligible to

receive milestone payments of up to $165 million if vaccines are successfully developed in each of the three fields. Additional milestones of up to $260 million would be payable for follow-on indications in the oncology field and the successful development of additional vaccines containing Idera's TLR agonists. There is no limit to the number of vaccines to which Merck can apply Idera's agonists within the licensed fields. In addition, Idera will receive royalties on products commercialized under the collaboration.

"We are extremely pleased to collaborate with Merck, a global pharmaceutical leader with a reputation for innovative research," said Sudhir Agrawal, D. Phil., chief executive officer and chief scientific officer of Idera. "This agreement enables Idera to increase the potential of our TLR 7, 8 and 9 targeted compounds in the field of therapeutic and prophylactic vaccines. Furthermore, we look forward to working closely with Merck's world-class chemists to expand our portfolio of novel TLR 7 and TLR 8 agonist compounds."

"TLRs are critical mediators of the human immune response. We believe a chemistry-based approach may be an efficient way to harness the activity of TLRs to train the immune system to recognize antigens, thereby potentially enhancing the effect of vaccines," said Stephen H. Friend, M.D., Ph.D., executive vice president of Advanced Technologies and Oncology at Merck. "We are pleased to collaborate with Idera, which has established a robust TLR-based discovery platform that is synergistic with our internal chemistry programs and has yielded an extensive portfolio of TLR agonist compounds that can be applied across our multiple areas of interest for new vaccine development."

ABOUT TLRS

Toll-like Receptors (TLR) function in human immune cells as the sensors of pathogens. They recognize different microbial products present in pathogens such as bacteria, viruses and parasites, and mount an appropriate immune response against the foreign invaders. TLRs have become attractive targets for developing immune modulators to treat a number of diseases,

- more -

including cancer, asthma, allergies, and infectious diseases.

ABOUT IDERA PHARMACEUTICALS, INC.

Idera Pharmaceuticals, Inc. is a drug discovery and development company that is developing drug candidates to treat cancer and infectious, respiratory, and autoimmune diseases, and for use in combination with therapeutic and prophylactic vaccines. Idera's proprietary drug candidates are designed to modulate Toll-like Receptors, the body's first line of immune defense. Idera's pioneering DNA chemistry expertise enables it to identify drug candidates for internal development and creates opportunities for multiple collaborative alliances. For more information, visit www.iderapharma.com.

IDERA FORWARD LOOKING STATEMENT

This press release contains forward-looking statements concerning Idera Pharmaceuticals, Inc. that involve a number of risks and uncertainties. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "estimates," "intends," "should," "could," "will," "may," and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause Idera's actual results to differ materially from those indicated by such forward-looking statements, including whether the collaboration with Merck will be successful and whether the Company will receive any of the milestones provided for under the collaboration; whether products based on Idera's technology will advance into or through the clinical trial process on a timely basis or at all and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether, if the Company's products receive approval, they will be successfully distributed and marketed; whether Idera's cash resources will be sufficient to fund product development and clinical trials; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Quarterly Report on Form 10-Q filed on November 13, 2006, which important factors are incorporated

herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

- more -

ABOUT MERCK & CO., INC.

Merck & Co., Inc. is a global research-driven pharmaceutical company dedicated to putting patients first. Established in 1891, Merck currently discovers, develops, manufactures and markets vaccines and medicines to address unmet medical needs. The Company devotes extensive efforts to increase access to medicines through far-reaching programs that not only donate Merck medicines but help deliver them to the people who need them. Merck also publishes unbiased health information as a not-for-profit service. For more information, visit: www.merck.com.

MERCK FORWARD-LOOKING STATEMENT

This press release contains "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and involve risks and uncertainties, which may cause results to differ materially from those set forth in the statements. The forward-looking statements may include statements regarding product development, product potential or financial performance. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. Merck undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. Forward-looking statements in this press release should be evaluated together with the many uncertainties that affect Merck's business, particularly those mentioned in the cautionary statements in Item 1 of Merck's Form 10-K for the year ended Dec. 31, 2005, and in its periodic reports on Form 10-Q and Form 8-K, which the company incorporates by reference.

# # #

SCHEDULE 5.4.4

ROYALTY REDUCTION

Total aggregate royalty rate * [**]% = Amount of royalty rate reduction obligation exceeding [**]%

SCHEDULE 6.1(D)

SCHEDULE OF EXCEPTIONS

The following patent applications are jointly owned by Idera and The Immune Response Corporation:

Application Number 11/078,654 (Publication Number 20050266015

Application Number PCT/US04/16298 (Publication Number WO 05/089231A2

Exhibit 99.1

FOR IMMEDIATE RELEASE

Contacts:

Idera Pharmaceuticals, Inc.
Kelly Luethje
617-679-5519
E-mail: kluethje@iderapharma.com

MacDougall Biomedical Communications
Chris Erdman
508-647-0209
E-mail: cerdman@macbiocom.com

Idera Pharmaceuticals Reports Fourth Quarter and Full Year 2006 Financial Results

Cambridge, MA, March 6, 2007 — Idera Pharmaceuticals Inc. (AMEX: IDP), a biopharmaceutical company focused on developing therapeutics targeting Toll-like Receptors (TLR), today reported financial results for the quarter and year ended December 31, 2006.

"Idera made very significant advances in 2006 toward building a leading biopharmaceutical company focused on therapeutics targeting toll-like receptors," said Sudhir Agrawal, D. Phil., Chief Executive Officer and Chief Scientific Officer. "In 2006, our discovery team expanded our portfolio of compounds targeting TLRs, including novel agonists of TLR7 and 8, and antagonists of TLR7, 8 and 9. Our development team formed an Oncology Clinical Advisory Board to assist in our oncology strategy with IMO-2055, and conducted studies with our second TLR9 agonist IMO-2125 toward supporting the filing of an Investigational New Drug application. Our corporate achievements included strengthening the Company's intellectual property position and entering into a collaboration with Merck on vaccines for cancer, infectious diseases, and Alzheimer's disease. In 2007, Idera expects to continue advancing its scientific leadership, drug candidates, partnered programs, and other business goals."

Fourth Quarter Results

The Company reported a net loss of $4.7 million or $0.26 per share for the three months ended December 31, 2006, compared to a net loss of $3.9 million, or $0.28 per share for the same period in 2005.

Total revenues for the three months ended December 31, 2006 were $0.6 million compared to $1.4 million for the same period in 2005. The decrease in 2006 revenue is primarily due to a reimbursement of third party expenses in 2005 as part of the Company's collaboration with Novartis, offset in part by license fees recognized under the collaboration with Merck & Co., Inc. ("Merck") signed in December 2006.

Research and Development expenses for the three months ended December 31, 2006 totaled $3.0 million compared to $4.0 million for the same period in 2005. The decrease in 2006 R&D expense is primarily due to a third party expense incurred by the Company in 2005 related to the Novartis collaboration and lower clinical trial expenses in 2006, offset in part by higher payroll costs, including an increase in stock-based compensation due to the adoption of SFAS 123R.

General and Administrative expenses for the three months ended December 31, 2006 were $2.3 million compared to $1.3 million for the same period in 2005. The increase in G&A is primarily attributable to increased stock-based compensation, higher payroll costs, and expenses associated with entering into a collaboration with Merck.

Full Year Results

For the year ended December 31, 2006, the Company's net loss was $16.5 million or $0.99 per share, compared to a net loss of $13.7 million, or $0.99 per share for 2005.

For the year ended December 31, 2006, revenues totaled $2.4 million compared to $2.5 million for 2005. The decrease in revenue is primarily due to a reimbursement of third party expenses in 2005 as part of the Company's collaboration with Novartis, offset by a full year of license revenue recognized in 2006 under the same collaboration with Novartis and license fees recognized under the collaboration with Merck signed in December 2006.

For the year ended December 31, 2006, Research and Development expenses totaled $12.7 million compared to $11.2 million for 2005. The increase in R&D expense is primarily due to initiation of the development program for IMO-2125 in infectious disease, higher payroll costs and an increase in stock-based compensation, offset in part by a decrease in third party expenses incurred by the Company in 2005 related to the Novartis collaboration.

For the year ended December 31, 2006, General and Administrative expenses totaled $6.3 million compared to $5.1 million for 2005. The increase in G&A expense primarily reflects higher payroll costs, increased stock-based compensation and expenses associated with entering into a collaboration with Merck.

As of December 31, 2006, cash, cash equivalents and short-term investments totaled approximately $38.2 million compared to $8.4 million at December 31, 2005. This increase reflects an upfront license fee and an equity investment received from Merck and financing proceeds raised in 2006.

2006 and Recent Corporate Highlights

Product Pipeline and Scientific Progress:

Oncology

- IMO-2055, a TLR9 agonist, is the Company's lead candidate in oncology. The Company is currently conducting a phase 2 clinical trial of IMO-2055 as a monotherapy in metastatic or recurrent renal cell carcinoma. The Company expects to complete enrollment in Stage A of the trial shortly and expects to announce the results of this study by the end of 2007.
- The Company is also conducting a phase 1/2 trial of IMO-2055 in combination with chemotherapeutic agents in refractory solid tumor patients. The Company expects to announce the results of phase 1 of this study by the end of 2007.
- In July 2006, the Company formed an Oncology Clinical Advisory Board of ten internationally prominent physicians and scientists with broad expertise in oncology drug development and clinical practice to advise the Company on the clinical development of IMO-2055 in oncology, including which indications to pursue and on trial design.
- The Company's academic collaborators reported preclinical data showing that the Company's TLR9 agonist potentiates the anti-tumor activity of the EGFR inhibitor cetuximab, and the VEGF inhibitor bevacizumab in mouse models of human cancer.
- Based on preclinical data, our clinical experience, and input from members of the Oncology Clinical Advisory Board, the Company plans to initiate new oncology clinical trials in 2007 to evaluate IMO-2055 in combination with standard oncology therapies in oncology indications to be determined.

Infectious Diseases

- The Company's second lead drug candidate is IMO-2125, a novel TLR9 agonist that the Company is initially developing for the treatment of hepatitis C. In preclinical studies IMO-2125 has induced interferon-alpha and other cytokines. The Company has completed preclinical and toxicology studies for IMO-2125 to support the filing of an Investigational New Drug application, which we intend to submit to the U.S. Food and Drug Administration in the second quarter of 2007.

Autoimmune Diseases

- Recent studies by others have shown that TLRs recognize DNA- and RNA-containing immune complexes in human autoimmune diseases, such as lupus. These findings suggest that blocking immune responses through TLRs may be a useful therapeutic approach for certain autoimmune diseases. The Company has identified a novel class of DNA-based compounds that act as antagonists of specific TLRs. In mouse models of lupus, mice treated with one of our TLR antagonists showed improvement in several disease parameters.

Discovery of compounds targeted to TLRs

- The Company continues to advance its chemistry-based discovery approach to identifying novel compounds targeted to TLRs 7, 8, and 9. The Company has expanded its portfolio of RNA-based compounds, which we refer to as SIMRA (*stabilized immune modulatory RNA*), and which act as agonists of TLR7 and TLR8. The Company has also identified DNA-based compounds that act as antagonists of TLRs 7, 8, and 9.
- Since the end of the third quarter 2006, the Company presented data regarding some of these compounds at the following scientific meetings:
    - Oligonucleotide Therapeutics Society, October 2006, five presentations
    - American College of Rheumatology, November 2006, and
    - Keystone Symposium, February 2007

Business Highlights

- In December 2006, the Company entered into an Exclusive License and Research Collaboration Agreement with Merck to research, develop and commercialize vaccine products containing Idera's agonist compounds targeting TLRs 7, 8 and 9 in the fields of oncology, infectious diseases and Alzheimer's disease (the "Licensed Fields"). Merck and Idera also agreed to engage in a two-year research and development collaboration to generate novel agonists targeting TLR7 and TLR8 and incorporating both Merck and Idera chemistry for use in the Licensed Fields. This collaboration may be extended by Merck for two additional one-year periods.

  Under the terms of the agreement:

    - Merck paid Idera a $20 million upfront license fee;
    - Merck purchased $10 million of Idera's common stock;
    - Merck agreed to fund the research and development collaboration; and
    - Merck agreed to pay Idera milestone payments as follows:
        - Up to $165 million if vaccines containing Idera's TLR9 agonist compounds are successfully developed and marketed in each of the oncology, infectious disease and Alzheimer's disease fields; and
        - Up to $260 million if vaccines containing Idera's TLR9 agonist compounds are successfully developed and marketed for follow-on indications in the oncology field and if vaccines containing Idera's TLR 7 and 8 agonists are successfully developed and marketed in each of the oncology, infectious disease and Alzheimer's disease fields.

  There is no limit to the number of vaccines to which Merck can apply Idera's TLR agonists within the Licensed Fields. If Merck develops and commercializes additional vaccines using Idera's agonists, Idera would be entitled to receive additional milestone payments. Merck also agreed to pay Idera royalties on net product sales of vaccines using Idera's TLR agonist technology that are developed and marketed.

- The collaboration between Idera and Novartis for the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications continues to progress. In March 2007, the Company announced that Novartis opted to extend the research program under the agreement for an additional year.
- In early 2007, Dr. Alice Bexon joined Idera as Vice President of Clinical Development.
- In March 2006, the Company raised gross proceeds of $9.75 million in a private placement of common stock and warrants to new institutional investors, led by Baker Brothers Investments. The Company raised an additional $9.75 million in 2006 through the sales of common stock to an investor group, Biotech Shares Ltd., under an agreement entered into in March 2006.
- In June 2006, the Company effected a one-for-eight reverse stock split of issued and outstanding common stock.
- In February 2007, the Company converted its 4% Convertible Subordinated notes due 2008 in the aggregate principal amount of $5,032,750 into shares of the Company's common stock.
- In December 2006, the Company entered into a seven-year operating lease agreement for approximately 26,500 square feet of space in Cambridge, MA to house its operations, commencing May 2007.

Intellectual Property

- The United States Patent and Trademark Office issued the Company three patents in 2006 and early 2007:
    - US 7,176,296 claiming compounds comprising a synthetic immunostimulatory motif and an immunomodulatory moiety;
    - US 7,115,579 claiming a method of inducing an immune response via administration of certain compounds that act through TLRs; and
    - US 7,105,495 claiming methods for modulating the immunostimulatory effect of novel dinucleotide motifs and CpG motifs by introducing modifications in the flanking sequence.
- The opposition window for EU 1,278,761, claiming compositions of matter and methods of use for certain immune modulatory oligonucleotides, closed with no opposition and the patent was validated in 16 European countries. The Australian Patent Office issued the Company a similar patent AU 2001257366.
- The Company's U.S. and foreign patents and patent applications claiming compounds targeted to TLRs have increased by approximately 30 since the end of 2005, and now total over 180.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals is a drug discovery and development company that is developing drug candidates to treat cancer and infectious, respiratory, and autoimmune diseases, and for use as vaccine adjuvants. Idera's proprietary drug candidates are designed to modulate TLRs, the body's first line of immune defense. Idera's pioneering DNA chemistry expertise enables it to identify drug candidates for internal development and creates opportunities for multiple collaborative alliances. Idera's most advanced clinical candidate, IMO-2055, is an agonist of TLR9 and is currently in a Phase 2 trial in oncology and in a Phase 1/2 chemotherapy combination trial in oncology. Idera has selected a second TLR9 agonist, IMO-2125, as a lead candidate for treating infectious diseases. Idera is collaborating with Novartis International Pharmaceutical, Ltd. for the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications. Idera is also collaborating with Merck & Co., Inc. for the use of Idera's TLR7, 8 and 9 agonists in combination with Merck's therapeutic and prophylactic vaccines in the areas of oncology, infectious diseases, and Alzheimer's disease. For more information, visit www.iderapharma.com.

Forward Looking Statements

This press release contains forward-looking statements concerning Idera Pharmaceuticals, Inc. that involve a number of risks and uncertainties. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "estimates," "intends," "should," "could," "will," "may," and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause Idera's actual results to differ materially from those indicated by such forward-looking statements, including whether products based on Idera's technology will advance into or through the clinical trial process on a timely basis or at all and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether the Company will complete enrollment of clinical trials or announce trial results in the time expected; whether, if the Company's products receive approval, they will be successfully distributed and marketed; whether the results of preclinical studies will be indicative of results that may be obtained in clinical trials; whether the Company's collaborations with Novartis and Merck will be successful; whether the patents and patent applications owned or licensed by Idera will protect the Company's technology and prevent others from infringing it; whether Idera's cash resources will be sufficient to fund product development and clinical trials; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Quarterly Report on Form 10-Q filed on November 13, 2006, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

Idera Pharmaceuticals, Inc.
Consolidated Condensed Statements of Operations
(In thousands, except per share data)

	Three Months Ended December 31,		Years Ended December 31,	
	2006	2005	2006	2005
	(unaudited)	(unaudited)	(unaudited)	
Revenues	$ 592	$ 1,441	$ 2,421	$ 2,467
Operating Expenses				
Research & Development	3,046	3,987	12,705	11,170
General & Administrative	2,301	1,339	6,276	5,120
Total Operating Expenses	5,347	5,326	18,981	16,290
Loss from Operations	(4,755)	(3,885)	(16,560)	(13,823)
Other, net	71	5	80	117
Loss before income taxes	(4,684)	(3,880)	(16,480)	(13,706)
Income tax provision	(45)	—	(45)	—
Net Loss Applicable To Common Stockholders	$ (4,729)	$ (3,880)	$(16,525)	$(13,706)
Basic and Diluted Net Loss Per Common Share	$ (0.26)	$ (0.28)	$ (0.99)	$ (0.99)
Shares Used In Computing Basic and Diluted Net Loss Per Common Share	18,352	13,902	16,625	13,886

Idera Pharmaceuticals, Inc.
Consolidated Condensed Balance Sheet Data
(In thousands)

	December 31,		
	2006	2006 Pro Forma (1)	2005
	(unaudited)	(unaudited)	
Cash, Cash Equivalents And Investments	$ 38,187	$ 38,153	$8,376
Receivables & Other Assets	2,354	2,056	1,613
Total Assets	$ 40,541	$ 40,209	$9,989
Deferred Revenue — Current	$ 5,992	$ 5,992	$2,171
Other Current Liabilities	2,026	1,992	1,881
Notes Payable	5,033	—	5,033
Other Non-Current Liabilities	3	3	10
Deferred Revenue — Non-current	15,250	15,250	1,229
Total Stockholders' Equity (Deficit)	12,237	16,972	(335)
Total Liabilities & Stockholders' Equity	$ 40,541	$ 40,209	$9,989

(1) The Pro Forma December 31, 2006 Balance Sheet Data reflects the conversion of all of the Company's 4% convertible notes into 706,844 shares of common stock on February 20, 2007. The Pro Forma column also reflects the reclassification of deferred financing costs to equity and the payment of accrued interest.

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