CENTERS FOR DISEASE CONTROL AND PREVENTION

CLINICAL TRIALS COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

Based on

Protocol _____

(TITLE)

In Collaboration With

(Pharmaceutical Company)

DRAFT

(Date)

CLINICAL TRIAL COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

This agreement is made by and between the Centers for Disease Control and Prevention at 1600 Clifton Road, NE, Atlanta, Georgia 30333 ("**CDC**"), and _____, a corporation organized and existing under the laws of the State of _____, having a place of business at _____ ("**Collaborator**").

WHEREAS, _____ ("**Agent**"), an investigational new drug or biological product, has demonstrated promising results in preclinical testing and clinical trials; and

WHEREAS, the Division of _____ ("**Division**") of the ***center, institute or office*** ("***CIO***"),desires to enter into a cooperative research and development agreement ("**CRADA**") with **Collaborator**, a pharmaceutical firm with the facilities, experience and expertise necessary to develop **Agent** into an approved drug or biological product available to the public; and

WHEREAS, ***CIO***,**CDC** and **Collaborator** (the "**Parties**") wish to collaborate on the clinical development of **Agent** and to generate data necessary to obtain pharmaceutic regulatory approval from the **FDA** and foreign counterparts of that agency to permit **Collaborator** to market **Agent**, both in the United States and in foreign countries; and

NOW THEREFORE, in consideration of the promises and undertakings described herein, the **Parties** agree as follows:

1 DEFINITIONS

1.1 "**Active Ingredient**" means any component that is intended to furnish pharmacological activity or other mitigation, treatment, or prevention of disease, or to affect the structure or any function of the body of man or other animals. This term includes those components that may undergo chemical change in the manufacture of the drug product and be present in the drug product in a modified form intended to furnish the specified activity or effect, as defined in 21 C.F.R. 210.3(a)(7).

1.2 "**Annual Report**" means an Annual Report which is a brief report of the progress of an **IND**-associated investigation which the **IND** sponsor is required to submit to the **FDA** within 60 days of the anniversary date that the **IND** went into effect (pursuant to 21 C.F.R. § 312.33). According to ***CIO*** policy, **Annual Reports** pursuant to 21 C.F.R. § 312.33 submitted for **IND**s sponsored by the ***CIO*** are made available to the public upon written request.

1.3 "**Agent**" means the drug or biological product defined above.

1.4 "**Confidential/Proprietary Information**" means confidential scientific, business or financial data, provided that such data:

is not publicly known or available from other sources who are not under a confidentiality obligation to the source of the information;

has not been made available by its owners to others without a confidentiality obligation;

is not already known by or available to the receiving **Party** without a confidentiality obligation;

does not relate to potential hazards or cautionary warnings associated with the production, handling or use of the subject matter of the **Research Plan** or **Protocol** of this **CRADA**; and

does not include an **Annual Report** to the **FDA**.

If any one or more of the above provisions of this definition is not met, the relevant data shall no longer be considered proprietary data.

1.5 "**CRADA**" or "**Cooperative Research and Development Agreement**" means this agreement, entered into by **CDC** pursuant to the Federal Technology Transfer Act of 1986, as amended, and Executive Order 12591 of October 10, 1987.

1.6 "**Designated Fields of Use**" means the scope of research defined in the **Research Plan**.

1.7 "**DHHS**" means the United States Department of Health and Human Services.

1.8 "**Drug Product**" means a finished dosage form, for example, tablet, capsule, solution, etc., that contains **Agent** as an **Active Ingredient** generally, but not necessarily, in association with inactive ingredients. The term also includes a finished dosage form that does not contain an **Active Ingredient** but is intended to be used as a placebo, as defined in 21 C.F.R. 210.3(a)(4).

1.9 "**FDA**" means the Food and Drug Administration, **DHHS**.

1.10 "**Government**" means the government of the United States of America and any of its agencies.

1.11 "**Human Subjects**" means individuals whose physiologic or behavioral characteristics and responses are the object of study in a research project. Under the federal regulations for the protection of human subjects, human subjects are defined as living individuals about whom an investigator conducting research obtains: (1) data through intervention or interaction with the individual; or (2) identifiable private information (45 C.F.R. 46.102(f)).

1.12 "**IND**" means an Investigational New Drug Application. The **IND** is the legal mechanism under which experimental drug research is performed in the United States. An **IND** is submitted to the **FDA** to receive approval to conduct experimental clinical trials. The **FDA** regulations require continual updates to the **IND** including, but not limited to, **Annual Reports**, adverse drug reaction reports, new protocols, protocol amendments and pharmaceutical data.

1.13 "**NDA**" means a New Drug Application. The **NDA** is the formal process by which the **FDA** approves a drug for commercial distribution.

1.14 "**NIH**" means the National Institutes of Health, **PHS**, **DHHS**.

1.15 "**Parties**" means **Collaborator** and **CDC**.

1.16 "**PHS**" means the Public Health Service, **DHHS**.

1.17 "**PLA**" means a Product License Application. The **PLA** is the formal process by which the **FDA** approves a biological for commercial distribution.

1.18 **"Protocol"** means the protocol, number ____, which is entitled "_____," and which is attached as **Appendix E**. **Appendix E** is made a part of this **CRADA** as though fully set forth. Any statement in the **Protocol** which is inconsistent with this **CRADA** is superseded by the **CRADA**.

1.19 "**Raw Data**" means the primary quantitative and empirical data first collected by the investigators from experiments and clinical trials conducted under the scope of this **CRADA**.

1.20 "**Research Plan**" means the statement in **Appendix B** of the respective research and development commitments of the **Parties** to this **CRADA**.

1.21 "**Research Results**" means all tangible materials other than **Subject Data** first produced in the performance of this **CRADA**.

1.22 "**Steering Committee**" means a joint research and development team to conduct, evaluate, and monitor the clinical trials in the **Protocol** in accordance with the **Research Plan**.

1.23 "**Subject Data**" means all recorded information first produced in the perfomance of this **CRADA**, including **Raw Data** and **Summary Data**.

1.24 "**Subject Invention**" means any invention, conceived or reduced to practice in the performance of research under this **CRADA**, that may be patentable under 35 U.S.C. 101 or 161, protectable under 7 U.S.C. 2321, or otherwise protectable by other types of U.S. or foreign intellectual property right.

1.25 "**Summary Data**" means a summary of the **Raw Data** which will be made available to the **Division** which summary is used by the **Division** to prepare an **Annual Report** to the **FDA**, said **Annual Report** being available to the public in accordance with **Division** policy.

2 STEERING COMMITTEE

2.1 Promptly upon the execution of this **CRADA**, the **Parties** shall form a **Steering Committee**. The **Steering Committee** will be responsible for the design, implementation, oversight and evaluation of the preclinical and clinical research and development activities under this **CRADA**; for determining the scope and magnitude of clinical trials necessary to explore **Agent**'s clinical utility; for establishing the order and priority of clinical efforts; and for other **Agent** preclinical and clinical research and development activities to be conducted under this **CRADA** as otherwise agreed to by the **Steering Committee**.

2.2 The initial composition of the **Steering Committee** shall be three voting members on behalf of ***CIO*** and three voting members on behalf of **Collaborator**. A **Steering Committee** member representing either ***CIO*** or **Collaborator** will chair the **Steering Committee**. The membership of the **Steering Committee** may be changed from time to time as mutually agreed by the **Parties**.

2.3 Attendance at **Steering Committee** meetings shall be limited to members of the **Steering Committee** and invited participants, as mutually agreed to by the **Parties**.

2.4 The **Steering Committee** shall meet within one month of the execution of this **CRADA**, and then regularly thereafter as appropriate. Minutes will be maintained at each meeting.

2.5 The **Steering Committee** shall prepare, and the **Parties** shall approve and sign, written summaries of each **Steering Committee** meeting. These summaries shall include information about **Steering Committee** deliberations and describe issues addressed and decisions reached. Written materials created by the **Steering Committee** shall be treated as described in Section 16.

2.6 The **Steering Committee** will provide reports quarterly (or on an alternative schedule as determined by the **Steering Committee**) to **Parties** on the progress of the various clinical trials under their supervision and on research and development efforts subject to this **CRADA**. These reports shall include all information included in **INDs**.

2.7 At the first **Steering Committee** meeting, and at regular intervals thereafter, the **Parties** shall provide to each other (1) information about the quantity of **Agent** available for clinical research and other purposes pursuant to this **CRADA** agreed upon by the **Steering Committee** and within the scope of the **Research Plan** and **Protocol**, together with relevant stability data; and (2) anticipated time lines for drug production and supply for the activities subject to this **CRADA**.

2.8 The **Steering Committee** shall prepare a final report of all results arising from all research efforts and clinical trials as described in the **Research Plan** and **Protocol**, within four (4) months, or on an alternative time schedule as determined by the **Steering Committee**, after completing the projects or after the termination of this **CRADA**.

2.9 In the event agreement cannot be reached by the **Steering Committee** on an issue subject to this **CRADA**, the matter shall be referred to, and a decision will be made jointly by, _____ (or such other individual as **Collaborator** may designate from time to time) of **Collaborator**, and the Director of the **Division**, ***CIO***.

2.10 If the persons identified in Section 2.9 are unable to resolve a dispute within thirty (30) days after referral from the **Steering Committee**, the Director of ***CIO*** shall propose a resolution in writing. If **Collaborator** elects not to accept the resolution proposed by the Director of ***CIO***, either **Party** may terminate this **CRADA** or make a new proposal for resolution of the matter.

3 STUDIES TO BE INITIATED PURSUANT TO THIS CRADA

3.1 The **Parties** will collaborate on the design, oversight and implementation of the clinical studies specified in the **Research Plan** and **Protocol**, with the objective of securing regulatory approval for the commercialization of **Agent**. These studies will be selected and designed to be used by **Collaborator** in an **NDA** or **PLA** to obtain pharmaceutic regulatory approval for the marketing of **Agent** for the **Designated Fields of Use**.

3.2 The **Parties** expect to collaborate on additional research and development of **Agent**, alone and in conjunction with other agents, for indications other than the indications which are those set forth in the **Research Plan** and **Protocol**. The **Steering Committee** shall be responsible for determining the scope and magnitude of collaborative research for these additional indications. Such additional studies and registrational plans for indications other than those set forth in the **Research Plan** and **Protocol** may be added to this **CRADA** by amendment after approval by both the **Steering Committee** and the **Parties**, and, if the **Division** considers the amendment to "significantly" modify the scope of the research under this **CRADA**, after additional comment and approval by the **CDC CRADA** approval process.

3.3 It is understood that **Collaborator** or ***CIO*** shall be free to sponsor additional research outside the scope of this **CRADA**. Such research outside the scope of this **CRADA** includes studies of basic mechanisms of **Agent** actions, derivatives, and analogues, and the use of **Agent** for other indications not added by amendment to this **CRADA**. **Collaborator** or ***CIO*** may independently initiate clinical trials involving **Agent** that are not set forth in the **Research Plan** or **Protocol** or added by amendment pursuant to this Section, and any such trials are beyond the scope of this **CRADA**.

4 FINANCIAL AND STAFFING CONTRIBUTIONS

4.1 **Collaborator** shall provide the personnel, financial and other contributions set forth in **Appendix C**. ***CIO*** shall provide the contributions including personnel, services and property, set forth in **Appendix C**. ***CIO*** will provide no funding to **Collaborator** for collaborative research and development pursuant to this **CRADA**, inasmuch as financial contributions by the **Government** to nonFederal parties under a **CRADA** are not authorized under the Federal Technology Transfer Act of 1986 (15 U.S.C. 3710(a)(b)(1)).

4.2 **CDC** shall not be obligated to perform any of the research specified herein or take any other action required by this **CRADA** if the funding is not provided as set forth in **Appendix C**. **CDC** shall return excess funds, excluding staffing support in accordance with Section 18.8, to **Collaborator** when it sends its final fiscal report pursuant to Section 4.3.

4.3 **CDC** shall maintain separate and distinct current accounts, records, and other evidence supporting all its obligations under this **CRADA**, and shall provide **Collaborator** an annual report reflecting the use of **Collaborator**'s funds and a final such fiscal report at the time that the final report is prepared by the **Steering Committee** pursuant to Section 2.8.

5 DRUG SUPPLY AND DISTRIBUTION

5.1 At its own expense, **Collaborator** shall acquire and process all quantities of bulk **Agent** needed to fulfill the formulated **Drug Product** requirements of this **CRADA**, as described in Section 2.7, as feasible and appropriate.

5.2 **Collaborator**, at its own expense, shall supply formulated **Drug Product** for all clinical trials set forth in the **Research Plan** and **Protocol**, as such program may be amended from time to time by the **Steering Committee** with the mutual written agreement of the **Parties**. **Collaborator** shall also provide formulated **Drug Product** for ***CIO*** studies, described in the **Research Plan**. **Drug Product** shall be shipped to repository or study sites as mutually agreed upon.

5.3 **Collaborator** shall provide the **CDC** with the necessary Material Safety Data Sheet (MSDS) for **Drug Product** together with any specific storage or shipping instructions.

6 INVESTIGATIONAL NEW DRUG APPLICATION SPONSORSHIP

CDC shall be responsible for the submission of an **IND** covering **Protocol**. The **IND** shall satisfy all of the requirements of the **FDA**. A letter granting cross reference to **Collaborator**'s **FDA** files which pertain to **Agent** shall be supplied by **Collaborator**, and, in return, **CDC** will also supply a letter, if requested, granting cross reference to **CDC**'S **IND** to **Collaborator.**

7 CLINICAL TRIAL SITES

7.1 The **CDC** will utilize trial sites under Government Contract, Cooperative Agreement or other arrangement set forth in the **research Plan** ("**Clinical Trial Sites**") for the studies described in the **Protocol**.

7.2 **CDC** will ensure that the **Protocol** will be conducted at **Clinical Trial Sites** according to the **FDA** Good Clinical Practices Guidelines.

7.3 **Collaborator** agrees to limit the conducting of the **Protocol** to **CDC Clinical Trial Sites** so long as mutually agreed accrual targets are met. However, this commitment does not prohibit **Collaborator** from conducting, at its own expense, additional clinical trials with **Agent** at non-**CDC** sites.

8 CASE REPORT FORM DEVELOPMENT

The **CDC** shall assume responsibility for the development and subsequent revisions, if any, of Case Report Forms with appropriate review and approval by the **Steering Committee**.

9 REPORTING

9.1 Adverse experience reports shall be collected by the ***CIO*** according to the procedures outlined in the **Protocol**.

9.2 The ***CIO*** shall assume total responsibility for the reporting of such adverse events to the **FDA** with a copy to the **Collaborator**.

9.3 The ***CIO*** shall report all serious and life threatening adverse events observed in this clinical trial to **Collaborator** and **Clinical Trial Sites** on a timely basis consistent with Federal Regulations 21 C.F.R. 312.32. All other adverse experiences shall be reported by ***CIO*** to **Collaborator** on a timely basis consistent with Federal Regulations 21 C.F.R. 312.33 for the **Annual Report**. Specific provisions for reporting adverse experiences to agencies outside the U.S. shall be provided for as required.

9.4 **Collaborator** shall, in a timely manner and during the term of this trial, provide the ***CIO*** with any information it now has or may obtain in the future regarding the safety and/or the toxicity of **Agent**.

10 DATA COLLECTION, MANAGEMENT, ANALYSIS AND REPORTING

10.1 The ***CIO*** shall assume responsibility for the collection, management, analysis and initial reporting of all data obtained from the trial. All **Raw Data** obtained from the trial shall be the property of the **Clinical Trial Site** that produces the data. These data shall not be released to the public except to the extent required by law. No persons or party other than **Collaborator,** its contractor, and/or its designate shall have any rights to review and/or use the **Raw Data** obtained from the trial for purposes of filing an **NDA** or **PLA** without the permission of **Collaborator.**

10.2 Where applicable, the grouped data shall be controlled by the ***CIO*** and shall not be released to the public without appropriate consultation with **Collaborator**.

10.3 ***CIO*** agrees to maintain adequate and accurate records as required under 21 C.F.R. 312.62 relating to the disposition of the **Drug Product** and the treatment of **Human Subjects** under the **Protocol**.

10.4 ***CIO*** agrees to maintain the records required by 21 C.F.R. 312.62 for a minimum of two years following the date a marketing application is approved for **Agent** for the indication which is being investigated, or until two years after ***CIO*** has provided written notice to the **Collaborator** that the investigation has been discontinued.

10.5 Information which may be released to the public or which may have significant impact on **Collaborator**'s approval of **Agent** for commercial sale shall not be released without prior discussion of the information with **Collaborator** except to the extent required by Federal Law.

10.6 **Collaborator** retains the right to access and utilize the data and reports from this **CRADA** for all legitimate business or regulatory purposes. **Collaborator** shall not at any time disclose the name of any **Human Subject** or any information which identifies a **Human Subject** to a third party unless specifically required to do so by law or the **FDA**.

10.7 **Collaborator**, after appropriate consultation with the ***CIO***, may provide information regarding the trial to governmental organizations (e.g., **FDA**, Securities and Exchange Commission, etc.).

10.8 Upon completion of the **CRADA**, **Collaborator** will be provided with a copy of the complete analysis data set and other **Raw Data** as required in a machine-readable format to be determined jointly.

11 FDA MEETINGS

One of the missions of the ***CIO*** is to ensure that active investigational therapies are approved and made widely available in a timely fashion. Therefore, ***CIO*** feels it is important to participate in the discussions with the **FDA** regarding regulatory matters covered in the **Research Plan** and **Protocol**. ***CIO*** expects that **Collaborator** will actively pursue approval of **Agent** by the **FDA** and that **Collaborator** will take the initiative in arranging formal meetings with the **FDA**. In addition, **Collaborator** will have the option to set the agenda for such formal meetings. All formal meetings, correspondence and discussions with **FDA** concerning any clinical trial conducted under this **CRADA**, the

data derived therefrom or any other matter concerning **Agent** will be discussed in advance by the **Parties**. All formal meetings and discussions will be held on mutually agreed upon dates.

12 NEW DRUG APPLICATION OR PRODUCT LICENSE APPLICATION

12.1 It is anticipated, and the **Parties** will utilize reasonable best efforts to see that an **NDA** or **PLA** is to be filed in the name of **Collaborator** within four to six (4-6) years from the date of the execution of this **CRADA**.

12.2 **Collaborator** shall prepare and submit an **NDA** or **PLA** for **Agent** to the **FDA** and other national pharmaceutic regulatory agencies as expeditiously as is feasible, when the **Steering Committee** determines that such actions are justified by clinical results. However, should **Collaborator** fail to prepare and submit an **NDA** or **PLA** to **FDA** within 18 months from the time the **Steering Committee** determines that data are known to demonstrate reproducible activity that would be sufficient to support an **NDA** or **PLA**, the ***CIO*** may terminate this **CRADA** under Section 18.5; but only if the failure to file an **NDA** or **PLA** by that date is established to be primarily due to **Collaborator**'s failure to exercise reasonable diligence in its pursuit of such **NDA** or **PLA**. In the event the **Steering Committee** cannot reach a mutually agreeable, consensus agreement concerning the provisions of this Section, then the dispute will be resolved according to the provisions of Sections 2.9 and 2.10, and Section 25. Following said termination, ***CIO*** will be free to solicit another collaborator.

12.3 ***CIO*** shall cooperate with **Collaborator** as necessary and appropriate during the registration process.

13 COMMERCIALIZATION OF AGENT FOR THERAPY AND DIAGNOSIS

13.1 ***CIO*** agrees to refrain from assisting any commercial party other than **Collaborator** in the commercialization of **Agent** for the therapy and diagnosis of the conditions defined in **Designated Fields of Use** during the terms of this **CRADA**, and shall use reasonable best efforts to assist **Collaborator** in the commercial development of **Agent** for use in the **Designated Fields of Use** during the term of this **CRADA**.

13.2 After **Agent** becomes commercially available, **Collaborator** agrees to continue supplying formulated **Agent** free of charge to investigators in the **Division** for clinical research protocols conducted by ***CIO*** for _____ (_) years.

13.3 To the extent permitted by law, and subject to appropriate confidentiality provisions of this **CRADA**, ***CIO*** shall, during the term of this **CRADA**, provide to **Collaborator** all technical information in ***CIO***'s possession that ***CIO*** deems appropriate to enable commercialization of **Agent**.

14 COMPLIANCE WITH FEDERAL REGULATIONS

14.1 **Collaborator** agrees to comply with all **DHHS** regulations relating to **Human Subject** use, all U.S. Department of Agriculture regulations, and all **PHS** policies relating to the use and care of laboratory animals.

14.2 Informed consent of the **Human Subjects** participating in the clinical trials shall be obtained in accordance with 21 C.F.R. Part 50 and Institutional Review Board ("**IRB**") review and approval of the **Protocol**, including the Informed Consent form, shall be obtained in accordance with 21 C.F.R. Part 56. The ***CIO*** agrees to supply **Collaborator** with evidence of **IRB** approval, a copy of the Informed Consent form which is **IRB**-approved, and a copy of any modified Informed Consent form later approved by the **IRB** and used.

15 INTELLECTUAL PROPERTY RIGHTS, APPLICATIONS AND LICENSES

15.1 The **Parties** shall promptly report to each other in writing each **Subject Invention** resulting from the research conducted under this **CRADA** that is reported to them by their respective employees. Such reports shall be treated in confidence by the receiving **Party** until such time as a patent or other intellectual property (collectively "**Intellectual Property**") application, as appropriate, claiming that **Subject Invention** has been filed. Because of the royalty sharing provisions for **Government** inventors in the Federal Technology Transfer Act of 1986, and in view of Section 15.12 which grants the **Government** only a research license on inventions made solely by **Collaborator**, **Collaborator** acknowledges a special duty to report all **Subject Inventions** to **CDC** so that **CDC** may determine whether or not inventorship properly includes **CDC** investigators.

15.2 **Collaborator** may elect to retain **Intellectual Property** rights to any **Subject Invention** made solely by a **Collaborator** employee. **Collaborator** shall notify **CDC** promptly upon making this election. If **Collaborator** does not elect to retain its **Intellectual Property** rights, **Collaborator** shall offer to assign these **Intellectual Property**

rights to the **Subject Invention** to **CDC** pursuant to Section 15.5. If **CDC** declines such assignment, **Collaborator** may release its **Intellectual Property** rights to employee inventors pursuant to Section 15.6.

15.3 **CDC** on behalf of the **Government** may elect to retain **Intellectual Property** rights to each **Subject Invention** made solely by **CDC** employees. If **CDC** does not elect to retain **Intellectual Property** rights, **CDC** shall offer to assign these **Intellectual Property** rights to such **Subject Invention** to **Collaborator** pursuant to Section 15.5. If **Collaborator** declines such assignment, **CDC** may release **Intellectual Property** rights in such **Subject Invention** to its employee inventors pursuant to Section 15.6**.**

15.4 Each **Subject Invention** made jointly by **CDC** and **Collaborator** employees shall be jointly owned by **CDC** and **Collaborator**. **Collaborator** may elect to file the joint **Intellectual Property** application(s) thereon and shall notify **CDC** promptly upon making this election. If **Collaborator** decides to file such applications, it shall do so in a timely manner and at its own expense. If **Collaborator** does not elect to file such application(s), **CDC** on behalf of the **Government** shall have the right to file the joint application in a timely manner and at its own expense. If either **Party** decides not to retain its **Intellectual Property** rights to a jointly owned **Subject Invention**, it shall offer to assign such rights to the other **Party** pursuant to Section 15.5. If the other **Party** declines such assignment, the offering **Party** may release its **Intellectual Property** rights to employee inventors pursuant to Section 15.6.

15.5 With respect to **Subject Inventions** made by **Collaborator** as described in Section 15.2 or by **CDC** as described in Section 15.3, a **Party** exercising its right to elect to retain its **Intellectual Property** rights to a **Subject Invention** agrees to file **Intellectual Property** applications in a timely manner and at its own expense. The **Party** may elect not to file an **Intellectual Property** application thereon in any particular country or countries provided it so advises the other **Party** ninety (90) days prior to the expiration of any applicable filing deadline, priority period or statutory bar date, and hereby agrees to assign its **Intellectual Property** right, title and interest in such country or countries to the **Subject Invention** to the other **Party** and to cooperate in the preparation and filing of an **Intellectual Property** applications. In any countries in which title to **Intellectual Property** rights is transferred to **Collaborator**, **Collaborator** agrees that **CDC** inventors will share in any royalty distribution that **Collaborator** pays its own inventors.

15.6 In the event neither of the **Parties** to this **CRADA** elects to file an **Intellectual Property** application on a **Subject Invention**, either or both (if a joint invention) may release their **Intellectual Property** rights to their respective employee inventor(s) with a non exclusive, non transferrable, royalty-free license being retained by each **Party**.

15.7 The expenses attendant to the filing of **Intellectual Property** applications generally shall be paid by the **Party** filing such application. If an exclusive license to any **Subject Invention** is granted to **Collaborator**, **Collaborator** shall pay ***CIO*** for the reasonable past and **Collaborator**-approved ongoing funds expended worldwide for filing, prosecuting and maintaining any applications claiming such exclusively-licensed inventions and any **Intellectual Property** grants that may issue on such applications. Such payment shall constitute a part of **Collaborator**'s contribution to this **CRADA**. **Collaborator** may waive its exclusive license rights on any application, patent or other **Intellectual Property** grant at any time, and incur no subsequent compensation obligation for that application, patent or **Intellectual Property** grant.

15.8 Each **Party** shall provide the other **Party** with copies of the applications it files on any **Subject Invention** along with the power to inspect and make copies of all documents retained in the **Intellectual Property** application files by the applicable patent or other **Intellectual Property** office. The **Parties** agree to consult with each other with respect to the prosecution of **CDC Subject Inventions** described in Section 15.3 and joint **Subject Inventions** described in Section 15.4. If **Collaborator** elects to file and prosecute **Intellectual Property** applications on joint **Subject Inventions** pursuant to Section 15.4, **CDC** will be granted an associate power of attorney (or its equivalent) on such **Intellectual Property** applications.

15.9 With respect to **Government Intellectual Property** rights to any **Subject Invention** not made solely by **Collaborator**'s employees for which an **Intellectual Property** application is filed, **CDC** hereby grants to **Collaborator** an option to negotiate, in good faith, the terms of an exclusive or nonexclusive commercialization license for the **Designated Fields of Use** that fairly reflect the relative contributions of the **Parties** to the invention and the **CRADA**, the risks incurred by **Collaborator** and the costs of subsequent research and development needed to bring the invention to the marketplace. The terms of the license shall be consistent with the policy set forth in **Appendix A** and will specify the licensed fields of use, breadth of exclusivity and royalties. Royalty rates will be based on product sales and the rates conventionally granted in the field identified in the license for inventions with reasonably similar commercial potential. Royalty rates generally will not exceed a rate within the range of five to eight percent (5-8%) for exclusive commercialization licenses. Contingent royalty schemes based on, e.g., patent issuance or nonissuance, and provisions treating the stacking of royalties or packaging of other licensed inventions developed under this **CRADA** may be provided. Exclusive licensees will be expected to pay ***CIO*** for **Intellectual Property** expenses related to each licensed

intellectual property, and such payment shall constitute a part of **Collaborator**'s contribution to this **CRADA**.

15.10 The option of Section 15.9 must be exercised by written notice mailed within three (3) months after the **Intellectual Property** application is filed to the **CDC** Technology Transfer Office, 1600 Clifton Road, NE, Mailstop E-67, Atlanta, GA 30333. Exercise of this option by **Collaborator** initiates a negotiation period that expires nine (9) months after the **Intellectual Property** application filing date. If the last proposal by **Collaborator** has not been responded to in writing by **CDC** within this nine (9) month period, the negotiation period shall be extended to expire one (1) month after **CDC** so responds, during which month **Collaborator** may accept in writing the final license proposal of **CDC**. After that time, **CDC** will be free to license such **Intellectual Property** rights to others.

15.11 CDC has a concern that there be a reasonable relationship between the pricing of a licensed product, the public investment in that product, and the health and safety needs of the public. Accordingly, exclusive commercialization licenses granted for **CDC** intellectual property rights may require that this relationship be supported by reasonable evidence.

15.12 For inventions developed wholly by **CDC** investigators or jointly with a **Collaborator** under this **CRADA**, **CDC** is required by the Federal Technology Transfer Act of 1986, 15 U.S.C. at 3710a(b)(2), to retain at least a nonexclusive, irrevocable, paid-up license to practice the invention or to have the invention practiced throughout the world by or on behalf of the **Government**. For inventions developed wholly by **Collaborator** under this **CRADA**, **Collaborator** agrees to grant a research license to the **Government**.

15.13 **CDC** reserves the right under any **Intellectual Property** license granted to **Collaborator** under this **CRADA** to grant nonexclusive licenses to third parties to make and to use the licensed invention for purposes of research involving the invention itself, and not for purposes of commercial manufacture or in lieu of purchase as a commercial product for use in other research. **CDC** intends to consult with its exclusive commercialization licensee(s) before granting research licenses to commercial entities.

15.14 In the event that **Collaborator** does not acquire an exclusive commercialization license to **Intellectual Property** rights in joint **Subject Inventions** described in Section 15.4, then each **Party** shall have the right to use the joint **Subject Invention** and to license its use to others. The **Parties** may agree to a joint licensing approach for such **Intellectual Property** rights.

16 CONFIDENTIAL/PROPRIETARY INFORMATION

16.1 To the extent permitted by law and subject to the terms of confidentiality set forth in this Section and the right of publication afforded by Section 17 of this **CRADA**, the **Parties** agree that any information or documents created or exchanged pertaining to the **Raw Data**, **Research Plan** or **Protocol** of this **CRADA**, including all discussions and information exchanged at meetings of the **Steering Committee**, and in written summaries of **Steering Committee** meetings shall be maintained confidential to the **Parties**, and shall not be disclosed to any third parties without consultation with the **Steering Committee**.

16.2 When a summary of **Raw Data** generated by a clinical study is made available to the **Division** and this **Summary Data** is used by the **Division** to prepare an **Annual Report** to the **FDA**, this said **Division Annual Report** prepared from said **Summary Data** is not confidential and is available to the public in accordance with **Division** policy.

16.3 ***CIO*** shall make all **Raw Data** resulting from the research and development efforts of this **CRADA** in its control or possession available exclusively to **Collaborator** for use in obtaining pharmaceutic regulatory approval for the commercial marketing of **Agent** throughout the world. ***CIO*** shall require in all contracts with contract investigators for **Agent** clinical trials and in all ***CIO*** clinical research that the **Raw Data** shall be so used and maintained, and no contract for **Agent** clinical trials research under this **CRADA** shall be executed absent such investigator's concurrence regarding confidentiality and such exclusive use by **Collaborator** for obtaining commercialization rights for **Agent**. With respect to extramural research grants, ***CIO*** shall urge extramural investigators to cooperate exclusively with **Collaborator** in providing **Raw Data** for use in obtaining pharmaceutic regulatory approval for the commercial marketing of **Agent**. However, ***CIO***'s urging is not intended to constitute a term or condition for making a grant award to said extramural investigators.

16.4 The following statement is included in all Contracts through which **Division** funds clinical trials: "In accordance with HHSAR 352.224-70, Confidentiality of Information (APR 1984), which is incorporated by reference in this contract, the Contractor shall ensure the confidentiality of the following data or information which may be made available to the contractor in the course of work to be performed hereunder: 1) proprietary information contained in **INDs** and reports to the **FDA** containing such data; 2) proprietary data in ***CIO*** databases; 3) confidential information in all

Adverse Drug Reaction ("**ADR**") documentation; 4) all information regarding clinical trials protocols in the preapproval stage; and 5) any protocol related proprietary data. Any dissemination of data relating to these documents and information shall be cleared through the Contracting Officer for the purpose of identifying any inadvertent disclosure of the data or information prior to any oral or written release of information. This includes abstracts and preprints and materials to be presented at conferences or in public forums. All proprietary and/or confidential data will be so marked, except in the case of protocols which shall be totally confidential in the pre-approval stage."

16.5 **CDC** agrees that all written information marked "Confidential" and received from **Collaborator**, and received by and agreed to by **CDC** which is **Confidential/Proprietary Information** is the sole and exclusive property of **Collaborator** during the period of this **CRADA** and subsequent thereto. Likewise, all information which is disclosed visually or orally by **Collaborator** and subsequently confirmed as Confidential Information in writing within ten (10) working days after first disclosure will be held as **Confidential/Proprietary Information**.

16.6 **CDC** agrees not to disclose **Collaborator**'s **Confidential/Proprietary Information** to any person, except ***CIO*** investigator(s), **Clinical Trial Site** investigators, members of the **IRB** or, as required, to the **FDA**, without the prior written consent of **Collaborator** and further agrees to take all reasonable precautions to prevent the disclosure by the ***CIO*** investigator(s), **Clinical Trial Site** investigators, and the **IRB** of **Collaborator**'s **Confidential/Proprietary Information** to a third party.

16.7 The **CDC** agrees to use **Collaborator**'s **Confidential/Proprietary Information** only in the conduct of the **CRADA** and evaluation of its results, and not for its own purposes.

16.8 While the **CDC** will endeavor to control the distribution of the **Protocol** document itself, **Collaborator** acknowledges that a list of all protocols which are open to patient enrollment are available (with abstracts) to the public under the Freedom of Information Act.

16.9 The obligation to maintain confidentiality of information shall expire at the earlier of the date when the information is no longer **Confidential/Proprietary Information** or three (3) years after the expiration or termination date of this **CRADA**. **Collaborator** may request an extension to this term when necessary to protect **Confidential/Proprietary Information** relating to products not yet commercialized.

17 PUBLICATION

17.1 Subject to the obligations of the **Parties** to maintain the **Raw Data** generated under this **CRADA** as confidential and proprietary, the **Parties** may publicly disclose the results of their research under the circumstances set forth in this Section.

17.2 Before either **Party** submits a paper or abstract for publication of information subject to this **CRADA**, the other **Party** shall be provided thirty (30) days to review the proposed publication to assure that confidential and proprietary data is protected. The publication shall be delayed for up to thirty (30) additional days upon written request by either **Party** as necessary to preserve U.S. or foreign patent or other intellectual property rights. Nothing contained in Section 16.1 of this **CRADA** shall prevent the timely publication of the results of clinical trials conducted under this **CRADA**.

17.3 Except as to the obligations of contract investigators to maintain **Raw Data** as confidential and proprietary to **Collaborator** for use in obtaining pharmaceutic regulatory approval for the commercial marketing of **Agent** as described in Section 16.3 of this **CRADA**, nothing contained herein shall restrict the rights of extramural investigators to publish the results of their research in accordance with applicable policies of **CDC**.

17.4 Any publications based on the results of the trial shall conform to the applicable **CDC** publication policy. Recognizing that **Collaborator** scientists may play an important role in the design, analysis, and interpretation of the findings of the trial, consideration shall be given by the Principal Scientists at the **Clinical Trial Sites** under Government Contract or Cooperative Agreement and **CDC** to include appropriate individuals from **Collaborator** in the authorship of publications based on the trial.

18 TERM AND TERMINATION

18.1 The effective date of this **CRADA** with respect to all provisions is the date of the last signature to this **CRADA**.

18.2 This **CRADA** shall expire on the earlier to occur of completion of the **Research Plan** or _____.

18.3 This **CRADA** may be terminated at any time by mutual consent of the **Parties**.

18.4 Either **Party** may unilaterally terminate this **CRADA** at any time by giving written notice to the other **Party** at least sixty (60) days prior to the desired termination date.

18.5 Either **Party** may terminate this **CRADA** if the other **Party** breaches a material term or condition, and if the breach is not cured within a period of sixty (60) days after written notice of breach is given to the other **Party**.

18.6 Either **Party** may, under the circumstances set forth in Sections 2.10 and Section 18.5, terminate this **CRADA** or make a new proposal for the resolution of the matter if **Collaborator** declines to accept the recommended resolution of the Director of ***CIO*** concerning a matter covered by said Sections.

18.7 On expiration or earlier termination of this **CRADA**, the disposition of the **Subject Data**, property, studies and **Drug Product** shall be determined by the **Steering Committee**, and all **Drug Product** to be transferred to ***CIO*** upon expiration or earlier termination of this **CRADA** shall be provided at cost by **Collaborator**.

18.8 If this **CRADA** is mutually or unilaterally terminated prior to its expiration, funds will nevertheless remain available to **CDC** for continuing any staffing commitment made by **Collaborator** pursuant to **Appendix C**, if applicable, for a period of six (6) months after such termination. If there are insufficient funds to cover this expense, **Collaborator** agrees to pay the difference.

19 ENTIRE AGREEMENT AND AMENDMENTS

19.1 This **CRADA** constitutes the entire agreement between the **Parties** concerning the subject matter of this **CRADA** and supersedes any prior understanding or written or oral agreement, including those related agreements designated in **Appendix D** or related documents.

19.2 If either **Party** desires a modification to this **CRADA**, the **Parties** shall, upon reasonable notice of the proposed modification or extension by the **Party** desiring the change, confer in good faith to determine the desirability of such modification or extension. Such modification shall not be effective until a written amendment is signed by the signatories to this **CRADA** or by their representatives duly authorized to execute such amendment.

19.3 **Appendices A through E** are attached to this **CRADA**, and incorporated herein by reference.

20 NOTICES

20.1 All notices pertaining to or required by this **CRADA** shall be in writing and shall be signed by an authorized representative and shall be delivered by hand or sent by certified mail, return receipt requested, with postage prepaid, to the addresses indicated on the signature page for each **Party**. Any notices in writing and payments to be made under this **CRADA** will be deemed duly given and made if sent by courier or by certified or registered mail, postage prepaid. Communications between the **Parties** will be addressed to the following persons, or to such other persons as the **Parties** may designate from time to time in writing:

For ***CIO***,**CDC**:

Director, Division of _____
Centers for Disease Control and Prevention
MailStop ____
1600 Clifton Road, N.E.
Atlanta, Georgia 30333

For **Collaborator**:

_____
_____ _____
_____ __
_____

20.2 Any **Party** may change such address by notice given to the other **Party** in the manner set forth above.

20.3 Notices regarding the exercise of license options shall be made pursuant to Section 15.10.

21 WAIVERS

None of the provisions of this **CRADA** shall be considered waived by any **Party** unless such waiver is given in writing to the other **Party**. The failure of a **Party** to insist upon strict performance of any of the terms and conditions hereof, or failure or delay to exercise any rights provided herein or by law, shall not be deemed a waiver of any rights of any **Party**. The waiver by either **Party** of a breach of any provisions of this **CRADA** will not operate or be construed as a waiver of any subsequent breach.

22 GOVERNING LAW

The construction, validity, performance and effect of this **CRADA** shall be governed by Federal law, as applied by the Federal Courts in the District of Columbia. Federal law and regulations will preempt any conflicting or inconsistent provisions in this **CRADA**.

23 SEVERABILITY

The illegality or invalidity of any provisions of this **CRADA** shall not impair, affect or invalidate the other provisions of this **CRADA**.

24 REPRESENTATIONS AND WARRANTIES

CDC hereby represents and warrants to **Collaborator** that the Official signing this **CRADA** has authority to do so. **Collaborator** hereby represents and warrants to **CDC** that **Collaborator** has the requisite power and authority to enter into this **CRADA** and to perform according to its terms, and that **Collaborator**'s Official signing this **CRADA** has authority to do so. **Collaborator** further represents that it is financially able to satisfy any funding commitments made in **Appendix C**.

25 DISPUTE RESOLUTION

Any dispute arising under this Agreement which is not disposed of by agreement of the **Parties** shall be submitted jointly to the signatories of this **CRADA**. If the signatories are unable to jointly resolve the dispute within thirty (30) days after notification thereof, the Assistant Secretary of Health (or his/her designee) shall propose a resolution. Nothing in this section shall prevent any **Party** from pursuing any and all administrative and/or judicial remedies which may be available.

26 LIABILITY

26.1 The **Government** shall not be responsible for damages to any property of **Collaborator** provided to it or acquired by it pursuant to this **CRADA**.

26.2 Except as specifically stated in Section 24, the **Parties** make no express or implied warranty as to any matter whatsoever, including the condition of the research or any invention or product, whether tangible or intangible, made or developed under this **CRADA**, or the ownership, merchantability, or fitness for a particular purpose of the research or any invention or product.

26.3 **Collaborator** agrees to hold the **Government** harmless and to indemnify the **Government** for all liabilities, demands, damages, expenses and losses arising out of the use by **Collaborator** for any purpose of the **Subject Data**, **Research Results** and/or **Subject Inventions** produced in whole or part by **CDC** employees under this **CRADA**, unless due to the negligence of **CDC**, its employees or agents. **Collaborator** shall be liable for any claims or damages it incurs in connection with this **CRADA**. **CDC** have no authority to indemnify **Collaborator**.

26.4 Neither **Party** shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such **Party**, which causes such **Party** to be unable to perform its obligations under this **CRADA**, and which it has been unable to overcome by the exercise of due diligence. In the event of the occurrence of such a force majeure event, the **Party** unable to perform shall promptly notify the other **Party**. It shall further use its reasonable best efforts to resume performance as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the force majeure event.

27 ENDORSEMENT

By entering into this **CRADA**, **CDC** does not directly or indirectly endorse any product or service provided, or to be provided, whether directly or indirectly related to either this **CRADA** or to any patent or other **Intellectual Property** license or agreement which implements this **CRADA**. **Collaborator** shall not in any way state or imply that this **CRADA** is an endorsement of any such product or service by the **Government** or any of its organizational units or employees. However, this does not prohibit **Collaborator** to reference or use publications and reports based on the trial for legitimate business and regulatory purposes. **Collaborator** may use, refer to and disseminate reprints of scientific, medical and other published articles which disclose the name of ***CIO*** consistent with U.S. copyright laws, provided such use does not constitute an endorsement of any commercial product or service by ***CIO***. **Collaborator** shall take every step possible to ensure that references to the articles are accurate, and shall explicitly state that any such reference does not claim, infer or imply an endorsement or recommendation of the product by the investigator, the ***CIO***, **CDC** or the **PHS**. **Collaborator** shall not use the name of ***CIO*** or any of the foregoing in any advertising, packaging, or promotional material in connection with **Agent** except with the written permission of ***CIO*** or as may be required by law.

28 SURVIVABILITY

The provisions of Sections 2, 10, and 17 as they relate to confidentiality only, and Sections 14, 15, 16, 18, 20, 21, 22, and 24 through 33 shall survive expiration or the earlier termination of this **CRADA**.

29 ASSIGNMENT

Neither this **CRADA** nor any rights or obligations of any **Party** hereunder shall be assigned or otherwise transferred by either **Party** without the prior written consent of the other **Party**.

30 INDEPENDENT CONTRACTORS

The relationship of the **Parties** to this **CRADA** is that of independent contractors and not as agents of each other or as joint venturers or partners. Each **Party** shall maintain sole and exclusive control over its personnel and operations. **Collaborator** employees who will be working at **CDC** facilities may be asked to sign a Guest Researcher or Special Volunteer Agreement appropriately modified in view of the terms of this **CRADA**.

31 REASONABLE CONSENT

Whenever a **Party**'s consent or permission is required under this **CRADA**, such consent or permission shall not be unreasonably withheld.

32 CONFLICTS

In the event there is a conflict between the language of Appendices A, B or C to this **CRADA** and the body of this **CRADA**, the language of the body of this **CRADA** shall control.

33 HEADINGS

Titles and Headings of the Sections of this **CRADA** are for the convenience of reference only, do not form a part of this **CRADA** and shall on no way affect its interpretation.

IN WITNESS THEREOF, the **Parties** have caused this **CRADA** to be executed.

CENTERS FOR DISEASE CONTROL AND PREVENTION
CIO

By:_____

Title:_____

Date:_____

The undersigned expressly certifies or affirms that the contents of any statements made or reflected in this document are truthful and accurate.

COLLABORATOR

By:_____

Title:_____

Date:_____

Appendix A

CDC Policy Statement on
Cooperative Research and Development Agreements and
Intellectual Property Licensing

Appendix B

Research Plan

Appendix C

Financial and Staffing Contributions of the Parties

Appendix D

Exceptions or Modifications to this CRADA

Appendix E

Protocol