18-01863-E

January 10 2018

US Securities & Exchange Commission
Office of FOIA and Privacy Act Operations
100 F Street, NE Mail Stop 5100
Washington, DC 20549-5100

Dear FOIA Office:

Under the Freedom of Information Act (FOIA), please send a copy of the following:

A copy of: Exhibit: 10.20 to the form 10-K filed by ARENA PHARMACEUTICALS INC on March 2, 2005

In the event confidential treatment has not expired provide the specific date for which confidential treatment is still in effect. I do not need a copy of the order. We authorize up to $61.00 in processing fees. Thank You,

Paul D'Souza
Editor - Deals

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
STATION PLACE
100 F STREET, NE
WASHINGTON, DC 20549-2465

Office of FOIA Services

January 22, 2018

Mr. Paul D'Souza
Clarivate Analytics
160 Blackfriars Road
London, SE18EZ
United Kingdom

RE: Freedom of Information Act (FOIA), 5 U.S.C. § 552
Request No. 18-01863-E

Dear Mr. D'Souza:

This letter is in response to your request, dated and received in this office on January 10, 2018, for access to Exhibit 10.20 to the Form 10-K filed by Arena Pharmaceuticals Inc. on March 2, 2005.

The search for responsive records has resulted in the retrieval of 61 pages of records that may be responsive to your request. They are being provided to you with this letter.

No fees have been assessed in the processing of this request. If you have any questions, please contact me at osbornes@sec.gov or (202) 551-8371. You may also contact me at foiapa@sec.gov or (202) 551-7900. You also have the right to seek assistance from Ray J. McInerney as a FOIA Public Liaison or contact the Office of Government Information Services (OGIS) for dispute resolution services. OGIS can be reached at 1-877-684-6448 or Archives.gov or via e-mail at ogis@nara.gov.

Sincerely,

Sonja Osborne

Sonja Osborne
FOIA Lead Research Specialist

Enclosure

10.20

COLLABORATION AND LICENSE AGREEMENT

THIS COLLABORATION AND LICENSE AGREEMENT (this ***"Agreement"***) is entered into as of December 20, 2004 (the ***"Effective Date"***) by and between **ARENA PHARMACEUTICALS, INC.**, a Delaware corporation having an office at 6166 Nancy Ridge Drive, San Diego, CA 92121 (***"Arena"***), and **ORTHO-MCNEIL PHARMACEUTICAL, INC.**, a New Jersey corporation having an office at 1000 U.S. Route 202, Raritan, New Jersey 08869 (***"J&J"***). Arena and J&J may each be referred to individually as a "Party", and collectively as the "Parties".

RECITALS

WHEREAS, Arena has discovered and developed certain compounds that modulate the activity of a G-protein coupled receptor referred to by Arena as 19AJ; and

WHEREAS, Arena has expertise and intellectual property related to the above compounds and 19AJ, including assays for identifying compounds that modulate 19AJ; and

WHEREAS, J&J is engaged in the research, development and commercialization of pharmaceutical products; and

WHEREAS, J&J and Arena desire to enter into a collaborative relationship (as a joint research agreement in accordance with 35 U.S.C. § 103(c)(3)) to identify and develop compounds that modulate 19AJ for clinical development and commercialization by J&J, subject to the terms and conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS

1.1 "19AJ" means the G-protein coupled receptor referred to by Arena as 19AJ, as more particularly described in Exhibit A of this Agreement.

1.2 "Active Compound" means:

(a) either of the lead molecules of Arena known as AR244061 and AR246881, as more particularly described in Exhibit A of this Agreement; or

(b) any molecule deemed to be an Active Compound by unanimous written consent of all members of the JSC; or

(c) any other composition of matter, including a small molecule, protein, antibody, or other compound:

* *CONFIDENTIAL TREATMENT REQUESTED*

(i) that is Controlled by Arena or any of its Affiliates, or is owned or licensed by J&J or any of their respective Affiliates, as of the Effective Date or at any time prior to the first anniversary of the end of the Research Term; and

(ii) that (1) modulates (including antagonism, inverse agonism, agonism and any variations thereof), or, in the case of a prodrug, that on administration to a mammal, generates a species that modulates, 19AJ with an EC50 or IC50 equal to or less than 50 * nM in 293 cells (assay protocol attached in Exhibit B); and (2) affects or blocks 19AJ agonist-induced insulin secretion with an EC50 equal to or less than 1μM in HIT cells (assay protocol * attached in Exhibit B); and

(iii) for which the activity criteria in subsection (c)(ii) above either:

(1) is known to Arena and/or J&J (or an Affiliate of either of them) as of the Effective Date; or

(2) is discovered or identified by or on behalf of, or otherwise becomes known to, Arena and/or J&J (or an Affiliate of either of them) during the Research Term or the one year period after the end of the Research Term, which shall include any compound: (A) that is generically or specifically described within a claim, describing a genus or species of compounds the utility of which is given (in the applicable patent or patent application) as modulation of 19AJ, in any pending or issued Arena Patent, J&J Patent or Joint Patent filed in the United States or Japan or as a European Patent Application, or as a Patent Cooperation Treaty ("***PCT***") application designating the United States and the contracting states of the European Patent Convention, and as to which at least one member of such genus or species is one of the compounds in subsection 1.2(a), or meets the requirements of subsections 1.2(c)(i) and 1.2(c)(ii), and (B) *provided that* such compound is synthesized and assayed and determined to meet the requirements of subsection 1.2(c)(ii) by or on behalf of Arena and/or J&J (or an Affiliate of either of them) prior to the first anniversary of the end of the Research Term.

1.3 "Affiliate" means, with respect to a Party, any company or other entity controlled by, controlling, or under common control with such Party where the term "controlled by" (with correlative meanings for the terms "controlling" and "under common control with") means that the Party owns or controls, directly or indirectly, at least 50% of the voting power of the subject company or other entity which voting power in the case of a corporation is entitled to vote for the election of directors, or otherwise has the actual right and ability to control and direct the management and business affairs of the subject company or entity.

1.4 "Arena Know-How" means any Information that (a) is Controlled by Arena on the Effective Date or during the Research Term and the one year period thereafter, and (b) relates directly to an Active Compound or is directly useful for purposes of the Research Program or is necessary for the manufacture, use or sale of any Collaboration Product, but excluding the Arena Patents and Joint Patents and Information disclosed therein.

1.5 "Arena Patent" means any Arena Commercialization Patent or Arena Research Patent.

(a) **"Arena Commercialization Patent"** means any Patent to the extent that the Patent: (i) is Controlled by Arena on the Effective Date or at any time during the Term of the Agreement, and (ii) claims (x) a Selected Compound (including a combination containing a Selected Compound), or its manufacture or use, or (y) an invention that is directly useful for the manufacture, use or sale of any Collaboration Product, but excluding the Joint Patents.

(b) **"Arena Research Patent"** means any Patent to the extent that the Patent: (i) is Controlled by Arena on the Effective Date or during the Research Term and the one year period thereafter, and (ii) claims (x) an Active Compound (including a combination containing an Active Compound), or its manufacture or use, or (y) an invention relating specifically to 19AJ or its use that is directly useful for purposes of the Research Program, but excluding the Joint Patents.

1.6 "Arena Technology" means the Arena Patents and Arena Know-How.

1.7 "Business Day" means a day on which banking institutions in New York, NY are open for business.

1.8 "Calendar Quarter" means each one of four time periods in any calendar year comprising approximately a three-month period which will be determined in accordance with the Johnson & Johnson Universal Calendar. The 2004 and 2005 Calendar is attached hereto as Exhibit D. For any year during this Agreement after 2005, J&J will provide Arena with the then current Johnson & Johnson Universal Calendar as requested by Arena.

1.9 "Collaboration Invention" means any Information discovered, developed or created by either Party, or the Parties jointly, and/or by their respective Affiliates pursuant to work conducted under the Research Program during the Research Term, or during the one-year period after the end of the Research Term relating to work done under the Research Program or Active Compounds.

1.10 "Collaboration Product" means any pharmaceutical product that contains a Development Compound (or any prodrug, ester, salt form, stereoisomer, crystalline polymorph, hydrate or solvate thereof), and including all formulations, line extensions and modes of administration thereof.

1.11 "Commercial Sale" means, with respect to a Collaboration Product, the sale of such Collaboration Product intended for end use or consumption in a country after the governing health regulatory authority of such country has granted Regulatory Approval of the Collaboration Product (which will include sales of a Collaboration Product occurring prior to Regulatory Approval in a country if such sold Collaboration Products are intended to be used by end user in such country after Regulatory Approval is obtained in such country). Sale to an Affiliate or Sublicensee will not constitute a Commercial Sale unless the Affiliate or Sublicensee is the end user of the Collaboration Product.

1.12 "Confidential Information" has the meaning provided in Section 10.1.

1.13 "Controlled" means, with respect to any Information, Patent or other intellectual property right, that the applicable Party owns or has a license to such Information, Patent or other

intellectual property right and has the ability to disclose same to the other Party and to grant such other Party a license or a sublicense (as applicable) under same as provided in this Agreement without violating the terms of any agreement or other arrangement with any Third Party.

1.14 "Development Compound" means a Selected Compound that has been selected for further pre-clinical research and clinical development pursuant to a Drug Evaluation Acceptance, as provided in Section 3.2.

1.15 "Development Costs" means, with respect to a particular Development Compound, the actual costs and expenses incurred by or on behalf of a Party in conducting research or development of the Development Compound under the applicable Early Development Plan or Late Stage Development Plan or otherwise pursuant to this Agreement.

1.16 "Development Plan" means an Early Development Plan or a Late Stage Development Plan, as applicable.

1.17 "Diligent Efforts" means carrying out tasks or obligations in a manner consistent with the efforts the applicable Party devotes to a product at a similar stage of development or commercialization and of similar market potential resulting from its own research efforts, based on conditions then prevailing. A Party that is required to use Diligent Effort with respect to a task or obligation must: (i) promptly assign responsibility for such task or obligation to specific employee(s) who are held accountable for progress and monitor such progress on an on-going basis, (ii) establish means for and consistently seek to achieve such task or obligation, and (iii) consistently make and implement decisions and allocate resources designed to advance progress with respect to such task or obligation.

1.18 "Drug Evaluation Acceptance" means the decision by the appropriate committees or personnel of J&J (or its Affiliate) to select a particular preclinical compound for Drug Evaluation (as such term is used generally by J&J as of the Effective Date), which means the decision to transfer a compound from discovery to drug evaluation in order to commence a program of GLP toxicology, GMP scale-up and/or related pre-clinical studies on such compound needed to develop the data necessary for preparing and filing an IND for such compound and subsequent early clinical studies, and as such decision may be renamed or otherwise referred to by J&J and/or its Affiliate.

1.19 "Early Stage Development" means the development activities that are conducted in connection with a Development Compound during the period of time beginning on the date a Development Compound achieves Drug Evaluation Acceptance through the completion of Phase IIa Clinical trials and ending at the start of Phase IIb Clinical Trials.

1.20 "Early Development Plan" means the plan, prepared by J&J and approved by the JSC pursuant to Section 3.2 for a particular Development Compound, for conducting the GLP toxicology and related work needed to prepare and file an IND for such Development Compound and for conducting clinical development of such Development Compound through completion of Phase IIa clinical trials in all appropriate countries and jurisdictions in the Territory, and including the budget and timeline for all such work, and as such plan may be updated or modified by the JSC as provided in Section 3.3.

1.21 "EU Major Market Country" means any of the United Kingdom, France, Germany, Italy or Spain.

1.22 "FDA" means the United States Food and Drug Administration, or any successor agency thereto having the administrative authority to regulate the marketing of human pharmaceutical products or biological therapeutic products, delivery systems and devices in the United States of America.

1.23 "Field of Use" means all therapeutic, prognostic, and diagnostic indications and applications for human and non-human purposes.

1.24 "FTE" means the equivalent of the work of one (1) employee full time for one (1) calendar year (consisting of a total of 1880 hours per calendar year) of work on the Research pursuant to the Research Plan. Any employee who devotes less than 1880 hours per calendar year on the Research Program shall be treated as an FTE on a pro-rata basis calculated by dividing the actual number of hours worked on the Research Program during such calendar year by 1880. Each Party understands and agrees that the other Party retains complete discretion to change the identity of any individual employee or consultant devoted to the Research Program and/or the frequency and the time during which such individual employee's or consultant's efforts are devoted to the Research Program, and that either Party's scientists who are working on the Research Program also may be working (during periods that do not count towards the FTE allocation devoted to the Research Program) on other of the Party's independent projects.

1.25 "IND" means an Investigational New Drug Application filed with the FDA, or the equivalent application or filing filed with any equivalent agency or governmental authority outside the United States of America (including any supra-national such as the European Union) necessary to commence and conduct human clinical trials in such jurisdiction.

1.26 "Indication" means a separate and distinct disease, disorder or medical condition that a Collaboration Product is intended to treat, prevent, cure, or ameliorate, or that is the subject of a clinical trial on a Development Compound where an endpoint of the trial is demonstrating an effect by the Development Compound in treating, preventing, curing, or ameliorating such disease, disorder or medical condition and where it is intended that the data and results of such clinical trial (if successful) will be used to support a regulatory submission and approval that is intended to result in distinct labeling within the indications section of the label relevant to usage in the disease, disorder or medical condition that is separate and distinct from another disease, disorder or medical condition.

1.27 "Information" means all tangible and intangible (a) information, techniques, technology, practices, trade secrets, inventions (whether patentable or not), methods, knowledge, know-how, skill, experience, data, results (including pharmacological, toxicological and clinical test data and results), analytical and quality control data, results or descriptions, software and algorithms and (b) compositions of matter, cells, cell lines, assays, animal models and physical, biological or chemical material.

1.28 "J&J Know-How" means any Information that (a) is Controlled by J&J or its Affiliate on the Effective Date or during the Research Term and the one year period thereafter,

and (b) relates directly to an Active Compound or is directly useful for purposes of the Research Program or is necessary for the manufacture, use or sale of any Collaboration Product, but excluding the J&J Patents and Joint Patents and Information disclosed therein.

1.29 "J&J Patent" means any J&J Commercialization Patent or J&J Research Patent.

(a) "J&J Commercialization Patent" means any Patent that: (i) is Controlled by J&J on the Effective Date or at any time during the Term of the Agreement, and (ii) claims (x) any Active Compound that is not a Selected Compound (including a combination containing such Active Compound), or its manufacture or use, or (y) an invention to the extent relating specifically to 19AJ or modulators thereof that is directly useful for the manufacture, use or sale of product that contains such Active Compound (which is not a Selected Compound), but excluding the Joint Patents.

(b) "J&J Research Patent" means any Patent that: (i) is Controlled by J&J on the Effective Date or during the Research Term and the one year period thereafter, and (ii) claims (x) an Active Compound (including a combination containing an Active Compound), or its manufacture or use, or (y) an invention to the extent relating specifically to 19AJ or modulators thereof that is directly useful for purposes of the Research Program, but excluding the Joint Patents.

1.30 "J&J Technology" means the J&J Patents and J&J Know-How.

1.31 "Joint Inventions" means Collaboration Inventions made or discovered by employees (or contractors) of Arena jointly with employees (or contractors) of J&J and/or its Affiliate.

1.30 "Joint Research Committee" or "JRC" has the meaning recited in Section 2.2.

1.32 "Joint Patents" means all Patents that claim or disclose a Joint Invention.

1.33 "Joint Steering Committee" or **"JSC"** means the committee formed by the Parties pursuant to Section 2.3 to oversee the Research Program and the Early Stage Development of Collaboration Products, as more specifically recited in Section 2.4.

1.34 "Late Stage Development" means the development activities that are conducted in connection with a Development Compound during the period of time beginning on the date a Development Compound enters Phase IIb Clinical Trials up to and including Regulatory Approval.

1.35 "Late Stage Development Plan" means the plan prepared by J&J pursuant to Section 3.4, with respect to a particular Development Compound that has completed all needed Phase IIa clinical trials, for conducting all subsequent clinical development of the Development Compound through achieving Regulatory Approval in all appropriate countries and jurisdictions in the Territory, and including the budget and timeline for all such work.

1.36 "NDA" means a New Drug Application (as more fully defined in 21 C.F.R. 314.5 *et seq.* or its successor regulation) and all amendments and supplements thereto filed with the FDA, or the equivalent application filed with any equivalent agency or governmental authority outside the United States of America (including any supra-national agency such as in the European Union), including all documents, data, and other information concerning a pharmaceutical product which are necessary for gaining Regulatory Approval to market and sell such pharmaceutical product.

1.37 "Net Sales" means the total amounts invoiced by J&J, its Affiliates, and their distributors and sub-licensees to Third Party purchasers for sales of Collaboration Products, less deductions for the following to the extent actually allowed or incurred with respect to such sales:

(a) Discounts from the invoiced price, retroactive price reductions, rebates, refunds, charge backs, allowances and adjustments granted to non-sublicensee Third Parties, including Medicaid, and managed care and similar types of rebates, rejections, market withdrawals, recalls and returns, and administrative fees charged by Third Party hospital buying groups and managed care organizations in the United States, each to the extent consistent with J&J's usual course of dealing for its products other than the Collaboration Products;

(b) trade, quantity and cash discounts from the invoiced prices and rebates actually allowed or given (other than to a distributor that is an Affiliate of J&J or a sub-licensee), each to the extent consistent with J&J's usual course of dealing for its products other than the Collaboration Product;

(c) sales, excise, turnover, value-added, and similar taxes assessed on the sale of the Collaboration Product (other than income taxes of J&J, its Affiliates or distributors or sublicensees), and import and customs duties;

(d) shipping and insurance charges, postage, and freight out, to the extent separately itemized in the invoices; and

(e) government imposed rebates or discounts from invoiced prices.

Sales of Collaboration Product by and between J&J and its Affiliates and their distributors and Sublicensees are not sales to Third Parties and shall be excluded from Net Sales calculations for all purposes provided that such purchasers resell the product. Sales of Collaboration Product for use in conducting clinical trials of Collaboration Product in a country in order to obtain the first Regulatory Approval of Collaboration Product in such country shall be excluded from Net Sales calculations *but solely* to the extent such sales are at the selling party's actual costs. Net Sales shall be determined in a manner consistent for all products sold by or on behalf of J&J and in accordance with applicable U.S. generally accepted accounting principles as consistently applied across the J&J pharmaceutical product lines.

If a particular Collaboration Product contains one or more other active pharmaceutical drug ingredients in addition to the Development Compound(s) in such Collaboration Product (a "Combination Product"), then the Net Sales of such Combination Product, for the purposes of determining royalty and other payments owed by J&J under this Agreement based on the sales of

the Combination Product, shall be calculated by first determining, using the above Net Sales definition, the Net Sales in such country for such Combination Product during the applicable sales period (understanding that a Combination Product is also a Collaboration Product for all purposes of this Agreement), and then multiplying that determined Net Sales by the fraction A/(A+B), where such fraction is determined in accordance with all of the following:

A is the average sale price (by J&J, its Affiliates and their distributors and sublicensees during such sales period) of the Collaboration Product that contains the Development Compound(s) in such Combination Product, but no other active ingredient, when sold separately in finished form in countries where such Combination Product is sold, and B is the average sale price (during such sales period) of the product(s) containing the other active pharmaceutical drug ingredients (*i.e.*, other than the Development Compound(s)) included in the Combination Product when sold separately in finished form in the countries where such Combination Product is sold, in each case during the applicable Net Sales reporting period.

If the fraction A/A+B cannot be determined using the above method, then the fraction will be established in good faith by the Parties where A is the relative value of the contribution of the Development Compound(s) in the Combination Product to the total value of the Combination Product, and B is the relative value of the contribution of the other active pharmaceutical drug ingredients (*i.e.*, other than the Development Compound(s)) included in the Combination Product to the total value of the Combination Product.

Regardless of which of the above methods is used to determine the fraction, such fraction cannot in any event be less than 0.5.

1.38 "Patents" means (a) United States patents, re-examinations, reissues, renewals, extensions and term restorations, and foreign counterparts thereof, and (b) pending applications for United States patents, including, without limitation, provisional applications, continuations, continuations-in-part, divisional and substitute applications, inventors' certificates, and extensions, and foreign counterparts of any of the foregoing.

1.39 "Phase I Clinical Trial" means that portion of the clinical development program which provides for the first introduction into humans of a Collaboration Product with the purpose of determining human toxicity, metabolism, absorption, elimination and/or other pharmacological action, as more fully defined in 21 C.F.R. § 312.21(a), or its successor regulation, or the equivalent in any foreign country.

1.40 "Phase IIa Clinical Trial" means that portion of the clinical development program which provides for the initial trials of a Collaboration product on a limited number of patients for the purpose of determining whether the Collaboration Product affects a surrogate marker or indicator of pharmacological or clinical activity in the proposed therapeutic indication, as more fully described in 21 C.F.R. § 312.21(b), or its successor regulation, or the equivalent in any foreign country.

1.41 "Phase IIb Clinical Trial" means that portion of the clinical development program which provides for the definitive, well controlled clinical trials of a Collaboration Product in patients for the purpose of determining the safe and effective dose range in the

proposed therapeutic indication, as more fully described in 21 C.F.R. § 312.21(b), or its successor regulation, or the equivalent in any foreign country.

1.42 "Phase III Clinical Trial" means that portion of the clinical development program which provides for continued trials of a collaboration Product on sufficient numbers of patients to establish the safety and efficacy of a Product and (if applicable) generate pharmaco-economic data to support Regulatory Approval in the proposed therapeutic indication, as more fully defined in 21 C.F.R. § 312.21(c), or its successor regulation, or the equivalent in any foreign country.

1.43 "Regulatory Approval" means any and all approvals (including price and reimbursement approvals, if required prior to sale in the applicable jurisdiction), licenses, registrations, or authorizations of any country, federal, supranational, state or local regulatory agency, department, bureau or other government entity that are necessary for the manufacture, use, storage, import, transport and/or sale of a particular Collaboration Product in the jurisdiction.

1.44 "Research" means all the work performed by the Parties or on their behalf under the Research Program, which is directed towards or in connection with the discovery, identification, synthesis and preclinical research on Active Compounds during the Research Term in accordance with the Research Plan.

1.45 "Research Plan" means the plan for conducting the Research Program, as amended from time to time by the JSC. The initial Research Plan has been agreed upon by the Parties in writing as of the Effective Date.

1.46 "Research Program" means a collaborative research program carried out by Arena and J&J during the Research Term pursuant to Articles 2 and 3 to identify and conduct pre-clinical research on compounds that agonize or otherwise modulate the activity of 19AJ in a manner that may be useful in treating type 1 diabetes, type 2 diabetes, metabolic syndrome, obesity and other Indications, with the intention of identifying and developing Active Compounds, as such program is more fully described in the Research Plan. *

1.47 "Research Term" means the period beginning on the Effective Date and ending on the 2nd anniversary of the Effective Date, as such period may be extended if the Research Program is extended in accordance with Section 2.13, or earlier terminated on early termination of this Agreement or the Research Program in accordance with Article 11.

1.48 "Selected Compound" means any Active Compound, up to a maximum of fifty (50) compounds, that has been selected by J&J as provided in Section 3.1. For clarity, all Development Compounds are deemed Selected Compounds. *

1.49 "Sublicensee" means a Third Party to whom J&J or any of its Affiliates has granted a license or sublicense of the right to make, have made, import, offer for sale, and/or sell one or more Collaboration Products.

1.50 "Territory" means the entire world.

1.51 **"Term"** has the meaning provided in Section 11.1.

1.52 **"Third Party"** means any entity other than Arena or J&J or an Affiliate of Arena or J&J.

1.53 **"Valid Claim"** means (a) an unexpired claim of an issued patent within the Arena Patents, Joint Patents or J&J Patents which has not been found to be unpatentable, invalid or unenforceable by a court or other authority in the subject country, from which decision no appeal is taken or can be taken; or (b) a claim of a pending application within the Arena Patents, Joint Patents or J&J Patents, which application claims a first priority no more than seven years prior to the date upon which pendency is determined.

2. RESEARCH PROGRAM AND COMMITTEE STRUCTURE

2.1 **Research Overview.** Commencing on the Effective Date, the Parties will each use Diligent Efforts to conduct the Research Program on a collaborative basis and in accordance with this Agreement, with the goal of discovering, identifying, synthesizing and performing preclinical research on Active Compounds, and with the further goal of identifying and selecting certain Active Compounds that are suitable for clinical development by J&J as Development Compounds and, if Regulatory Approval is obtained, for commercialization by J&J as Collaboration Products as soon as reasonably practicable. The Parties will conduct the Research Program in accordance with the Research Plan (as amended or revised by the JRC from time to time) and subject to the oversight of the JSC. The Research Plan, among other things as further specified in Section 2.6, will specify the scientific direction and research activities, and allocate Research Program responsibilities and resources between the Parties in a manner consistent with this Agreement.

2.2 **Joint Research Committee.** Promptly after the Effective Date, the Parties shall form a Joint Research Committee (the "JRC"). The JRC shall be comprised of 2 representatives of each Party, unless otherwise agreed to by the Parties. One member of the JRC will be selected to act as the chairperson of the JRC, with each chairperson acting for a term of 12 months. The chairperson will be selected alternately by Arena and J&J, and J&J will designate the first chairperson. The purpose of the JRC is to coordinate the Research efforts of the Parties and expedite the progress of the work being done under the Research Plan. The JRC will set specific Research goals, evaluate the results of the Research, discuss information relating to the Research, assign FTEs their responsibilities, manage resources and priorities and ensure that there is appropriate scientific direction for the collaboration of the Parties under the Research Plan. The JRC may modify the Research Plan as needed and submit it to the JSC for review and approval. Regardless of the number of representatives, each Party will present one consolidated view and have one vote. All decisions of the JRC will be made by unanimous vote, with each Party having one vote, except as otherwise expressly provided elsewhere in this Agreement. If the JRC fails to reach consensus, the matter will be submitted to the JSC for decision, subject to the provisions of Section 2.5. The JRC shall have meetings from time to time in person and by phone or video conference.

2.3 **Joint Steering Committee.** Promptly after the Effective Date, the Parties will form a Joint Steering Committee (the ***"JSC"***) comprised of three representatives of each of J&J

and Arena, unless otherwise agreed by the Parties. One member of the JSC will be selected to act as the chairperson of the JSC, with each chairperson acting for a term of 12 months. The chairperson will be selected alternately by Arena and J&J, and J&J will designate the first chairperson. The JSC will meet at least four times per year during the Research Term and semi-annually during Early Stage Development or at such greater frequency as the JSC agrees. The JSC shall only address activities carried out during the Research Term and Early Stage Development. After the end of the Research Term, and once all Development Compounds have moved past Early Stage Development, the JSC shall cease to function until such time as another Development Compound enters Early Stage Development, in which case the JSC will recommence meetings under this Section. Such meetings may be conducted by videoconference, teleconference or in person, as agreed by the Parties (except that at least one of such meetings per year will be conducted in person). The JSC will agree upon the time and location of the meetings. The chairperson or his or her designee will circulate an agenda for each meeting approximately one week before the date scheduled for the meeting, and will include all matters requested to be included on such agenda by either Party. The chairperson, or his or her designee, will take complete and accurate minutes of all discussions occurring at the JSC meetings and all matters decided upon at the meetings except that matters reflecting legal advice of counsel will not be included in such minutes. A copy of the draft minutes of each meeting will be provided to each Party by the chairperson or his or her designee within 20 days after each meeting, or as soon thereafter as practical, and such minutes will be reviewed by the JSC, any needed changes discussed and final minutes agreed to and provided to each Party by the end of the next JSC meeting, or as soon thereafter as practical. Within 30 days after each meeting, or as soon thereafter as practical, the JSC chairperson or his or her designee will provide the Parties with a written report describing, in reasonable detail, the status of the Research Program and all Early Stage Development programs, a summary of the results and progress to date, the issues requiring resolution, and the agreed resolution of previously reported issues. A reasonable number of additional representatives of a Party may attend meetings of the JSC in a non-voting capacity.

2.4 Joint Steering Committee Functions and Powers. The responsibilities of the JSC will be as follows:

(a) encouraging and facilitating communication between the Parties with respect to the Research Program and the development of Development Compounds in Early Stage Development;

(b) reviewing and approving the Research Plan and other plans for accomplishing the goals and budget of the Research Program;

(c) monitoring the progress of the Research Program and each Party's diligence in carrying out its responsibilities thereunder;

(d) recommending to J&J appropriate Active Compounds for selection as Development Compounds;

(e) reviewing and commenting on the Early Development Plan;

(f) monitoring the progress of the development program for each Development Compound during Early Stage Development; and

(g) carrying out the other duties and responsibilities described for it in this Agreement.

2.5 JSC Decision Making. All decisions of the JSC will be made by unanimous vote, with each member having one vote, except as otherwise expressly provided elsewhere in this Agreement. No vote of the JSC may be taken unless at least two of each Party's representatives on the JSC vote. If after reasonable discussion and consideration of each of the Parties' views on a particular matter before the JSC, the JSC is unable to reach a decision by unanimous vote on that matter, then J&J in its reasonable good-faith judgment will have the final decision on such matter, except that in no event can J&J make such a decision on the matter which would have the effect of increasing Arena's payment obligations or obligations to conduct research or development activities already contemplated under this Agreement, decreasing the level of J&J-funded FTEs of Arena dedicated to conducting the Research, requiring Arena to conduct Research activities beyond its existing expertise and resources, determining whether or not J&J has met its diligence obligations under the Agreement, or designating a compound as an Active Compound. For clarity, in no event will the JSC (or J&J's decision of a matter for which the JSC cannot reach agreement) have the authority or ability to amend or modify the terms of the Agreement, which can only be amended as provided in Section 14.2.

2.6 Research Plan. The Research Plan is agreed to by the Parties as of the Effective Date (in the form exchanged by the Parties by signed letter on the Effective Date), and it sets forth the specific research tasks to be undertaken and objectives to be achieved, the specific responsibilities of each Party, and the total number of FTEs to be devoted by each Party to the Research Program (subject to Section 2.7 with respect to Arena's FTE commitments). The JSC will be responsible for reviewing and approving any updates or amendments to the Research Plan submitted to it by the JRC.

2.7 Arena Research Commitment and Performance. During the Research Term, Arena will devote to the Research Program eight (8) Arena FTEs, subject to J&J's compliance with its funding obligations under Section 6.2. Arena shall use Diligent Efforts to ensure that the 8 Arena FTEs devoted to the Research carry out its obligations under the Research Program as specified in the Research Plan. The mix of these eight (8) FTEs (between biology, chemistry and other technical areas) to be devoted by Arena in the Research Program is as set forth in the Research Plan. The number of Arena FTEs devoted to the Research Program will not be reduced during the first two (2) years of the Research Term. Arena may, at its expense and at its discretion, devote additional of its FTEs to conduct work relating to the Research Program activities. Arena will conduct its activities under the Research Program in accordance with good scientific standards and practices and in compliance in all material respects with the requirements of applicable laws and regulations and with applicable good laboratory practices, to attempt to achieve its objectives efficiently and expeditiously. Arena will maintain laboratories, offices and all other facilities reasonably necessary to carry out the activities to be performed by it pursuant to the Research Plan. In conformity with standard pharmaceutical and biotechnology industry practices and the terms and conditions of this Agreement, Arena will prepare and maintain, or will cause to be prepared and maintained, complete and accurate written records,

accounts, notes, reports and data with respect to activities conducted pursuant to the Research Plan and, upon J&J's written request and at its expense, will send legible copies of the aforesaid to J&J. Arena will not be required to undertake any additional efforts or expend any additional amounts or resources in conducting the Research Program other than devoting the number of FTEs to the Research Program as set forth in the Research Plan (eight (8) FTEs for the initial Research Term). Notwithstanding the foregoing, Arena shall, at its sole cost, supply any research reagents, similar materials and any standard laboratory equipment currently owned by Arena (and any replacements thereto) that it needs to carry out its duties under the Research Plan, but any needed additional capital equipment or other extraordinary expenses, to the extent that the JRC has discussed and agreed on the need for such equipment or expenses and the Research Plan contemplates Arena acquiring such equipment or incurring such expenses, shall be paid for by J&J (or otherwise by the Parties if they so agree), *except that* if Arena makes an Early Development Election under Section 3.6, then J&J will only be responsible for payment of 50% of the cost of any such additional capital equipment or 50% of such expenses relating to such Early Stage Development activities if the JSC so approves unanimously.

2.8 J&J Research Commitment and Performance. During the Research Term, J&J will devote to the Research Program such number of J&J FTEs as are necessary for J&J to fulfill its obligations under the Research Plan. J&J will be responsible for the payment of all costs and expenses for the FTEs and other activities it undertakes in conducting its responsibilities under the Research Plan. J&J will conduct its activities under the Research Program in accordance with good scientific standards and practices and in compliance in all material respects with the requirements of applicable laws and regulations and with applicable good laboratory practices, to attempt to achieve its objectives efficiently and expeditiously. J&J will maintain laboratories, offices and all other facilities reasonably necessary to carry out the activities to be performed by it pursuant to the Research Plan. In conformity with standard pharmaceutical and biotechnology industry practices and the terms and conditions of this Agreement, J&J will prepare and maintain, or will cause to be prepared and maintained, complete and accurate written records, accounts, notes, reports and data with respect to activities conducted pursuant to the Research Plan and, upon Arena's written request and at its expense, will send legible copies of the aforesaid to Arena. J&J shall, at its sole cost, supply any research reagents and similar materials and any needed capital equipment or other materials to carry out its duties under the Research Plan.

2.9 Research Reports. Each Party will keep the other informed as to all progress achieved and results, discoveries and technical developments made in the course of performing activities under the Research Program. Each Party will report to the other Party promptly after such Party is aware of any significant Collaboration Inventions. In addition, each Party will prepare, and distribute to all members of the JSC no later than 10 days prior to the next JSC meeting, a reasonably detailed written summary report, in such form and format and setting forth such information regarding the results and progress of performance of the Research Program as determined from time to time by the JSC. Each Party will identify in each such written summary report summaries of all material Collaboration Inventions made, discovered or developed. Nothing herein will require either Party to disclose information received from or generated for a Third Party that remains subject to *bona fide* confidentiality obligations to such Third Party.

2.10 Subcontracts. Arena may not perform any of its obligations under this Agreement through one or more subcontractors or consultants, without the prior written approval of J&J, such approval not to be unreasonably withheld, *provided that* Arena will have the right to use such subcontractors and consultants as it selects, with J&J being deemed to have approved without prior Arena request, for conducting its development activities under an Early Stage Development program for which Arena has made an Early Development Election under Section 3.6(a). If Arena has the approval to use a subcontractor or consultant, then Arena may perform its obligations under this Agreement through that consultant or subcontractor, provided that (a) none of the rights of either Party under this Agreement are, to the knowledge of Arena at the time, diminished or otherwise adversely affected as a result of such subcontracting, and (b) the subcontractor undertakes in writing obligations of confidentiality and non-use regarding Confidential Information which are substantially the same as those undertaken by the Parties pursuant to Article 10 hereof. In the event Arena performs any of its obligations under the Research Plan through a subcontractor, then Arena will be responsible at all times for the performance and payment of such subcontractor.

2.11 Technology Transfer. Commencing promptly after the Effective Date and from time to time thereafter during the Research Term, Arena will disclose to J&J such Arena Technology as Arena reasonably determines is directly useful for J&J to perform its tasks under the Research Program and to exercise the licenses granted to J&J under Article 5 hereof. Commencing promptly after the Effective Date and from time to time thereafter during the Research Term, J&J will disclose to Arena such J&J Technology as J&J reasonably determines is directly useful for Arena to perform its tasks under the Research Program and to otherwise exercise the licenses granted to Arena under Article 5 hereof. During the Term, Arena will provide J&J with reasonable technical assistance relating to the use of the Arena Technology by J&J solely to the extent permitted under the license granted to J&J under Article 5. During the Term, J&J will provide Arena with reasonable technical assistance relating to the use of the J&J Technology by Arena solely to the extent permitted under the license granted to Arena under Article 5.

2.12 Materials Transfer. In order to facilitate the Research Program, either Party may provide to the other Party certain biological materials or chemical compounds Controlled by the supplying Party, including Active Compounds or other compounds for testing against 19AJ, (collectively, the ***"Materials"***) for use by the other Party in furtherance of the Research Program. For the avoidance of doubt, it is agreed that only those Materials comprising Arena Technology or J&J Technology will be disclosed under the foregoing, and all such Materials will be used by the other Party only as permitted under the applicable license rights granted under Article 5 and subject to all the other restrictions and obligations under this Agreement. Except as otherwise provided under this Agreement, all such Materials delivered to the other Party will remain the sole property of the supplying Party, will be used only in furtherance of the Research Program in accordance with this Agreement, will not be used or delivered to or for the benefit of any Third Party except as otherwise permitted under this Agreement without the prior written consent of the supplying Party, and will be used in compliance with all applicable laws, rules and regulations. The Materials supplied under this Agreement must be used with prudence and appropriate caution in any experimental work because not all of their characteristics may be known. Except as expressly set forth herein, THE MATERIALS ARE PROVIDED "AS IS" AND WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED,

INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE OR EXCEPT AS OTHERWISE PROVIDED IN THIS AGREEMENT ANY WARRANTY THAT THE USE OF THE MATERIALS WILL NOT INFRINGE OR VIOLATE ANY PATENT OR OTHER PROPRIETARY RIGHTS OF ANY THIRD PARTY.

2.13 Research Term Extension(s). At J&J's option, exercisable by written notice to Arena given no less than 90 days prior to the 2nd anniversary of the Effective Date, J&J may extend the Research Term by one full year until the 3rd anniversary of the Effective Date. In the event of such extension, Arena will devote to the Research Program eight FTEs funded by J&J during such additional year of the Research Term, or such other number of FTEs funded by J&J as the Parties may agree at that time in writing, subject to J&J's compliance with its funding obligations (including any modification to the per FTE rate) as provided in Section 6.2. Upon such extension, the JRC will promptly meet and amend the Research Plan as appropriate to cover the Research Program work to be conducted during the extension period. Any additional extensions to the Research Program would be on such terms as agreed to in writing by the Parties at the time of any such extension.

3. DEVELOPMENT OF DEVELOPMENT COMPOUNDS

3.1 Selection of Selected Compounds. At any time prior to the first anniversary of the end of the Research Term, J&J may by written notice to Arena select a particular Active Compound as a Selected Compound, up to a maximum of a total of fifty (50) Selected Compounds.

3.2 Development of Compounds. In order for J&J or its Affiliates to initiate development of any Active Compound, J&J or its Affiliate will first: (a) have selected such Active Compound as a Selected Compound (which selection must have occurred in any event, as provided in Section 3.1, prior to the first anniversary of the end of the Research Term), and (b) provide written notice to Arena of the occurrence of Drug Evaluation Acceptance with respect to such Selected Compound and thereby notify Arena of J&J's selection of the compound as a Development Compound. J&J will use Diligent Efforts to effect Drug Evaluation Acceptances of such number of Development Compounds as is commercially reasonable, as soon as practical. The JSC may also from time to time recommend that J&J select a particular Active Compound as a Selected Compound and as a Development Compound. J&J will consider any such recommendations in good faith, but the decision to select a particular Active Compound as a Selected Compound and to effect a Drug Evaluation Acceptance as to such Selected Compound will be made by J&J in its sole discretion, subject to its compliance with its diligence obligations under this Section and Section 3.7. Subject to the terms and conditions of this Agreement, J&J will control and be responsible for the worldwide development and for obtaining Regulatory Approvals of Development Compounds, including all pre-clinical work necessary to prepare and file INDs covering the Development Compounds (other than such work that is covered by the Research Plan), the planning and conduct of clinical trials and related studies of Development Compounds, the worldwide supply of Development Compounds in appropriate formulations and packaging for use in development through Regulatory Approval and the planning, filing and prosecution of applications for Regulatory Approval. J&J will use Diligent Efforts to conduct all the tasks and meet on a timely basis all the objectives and milestones under each Development

Plan. At J&J's request and expense, Arena will use reasonable efforts to contribute support in the area of clinical development to support J&J's development of Development Compounds, any such efforts to be fully paid for by J&J, including Arena's FTE rates and any additional out-of-pocket costs. J&J will be responsible for 100% of the entire Development Costs for implementing and conducting each Early Development Plan, except as otherwise provided in Section 3.6, and for implementing and conducting each Late Stage Development Plan. *

3.3 Early Development Plans. Promptly after J&J (or its Affiliate) selects a Development Compound, J&J will prepare an Early Development Plan for such Development Compound, which shall be submitted to the JSC for review and comment. Each such Early Development Plan will set forth the specific pre-clinical tasks to be undertaken and objectives to be achieved in order to prepare and file INDs covering such Development Compound, the initial clinical plan and regulatory strategy for the Development Compound through Phase IIa Clinical Trials, and the timeline and budget for such development. Each such Early Development Plan will be considered in good faith by the members of the JSC at the meeting, with at least 2 members of each Party voting at such meeting. J&J will be responsible for conducting all the work under each such Early Development Plan, except as otherwise provided in Section 3.6, and subject to the assistance of Arena as contemplated in Section 3.2 and to the possibility the JSC may agree to allocate certain specific development tasks to Arena, as agreed between the Parties at the time, which tasks would be fully funded by J&J. The JSC will be responsible for updating and amending each Early Development Plan at least quarterly, based on the progress and results of the applicable development program, and any relevant progress and results from development of Development Compounds. For purpose of assisting the Arena members of the JSC in their function to review and comment on the Early Development Plans, J&J will provide Arena a new Development Report (as defined in Section 3.5 below) at least 10 days prior to a JSC meeting, if the most recent prior Development Report would be more than 75 days old as of the date of such JSC meeting.

3.4 Late Stage Development Plans. For each Development Compound that has entered Phase IIb clinical trials, J&J shall prepare a Late Stage Development Plan for such Development Compound, which it shall submit to Arena for review and comment. Each such Late Stage Development Plan will set forth the clinical plan and regulatory strategy for the Development Compound through completion of all clinical trials expected to be needed to seek Regulatory Approval of a Collaboration Product containing the applicable Development Compound, the regulatory strategy for seeking such Regulatory Approvals, and the timeline and budget for such Development Compound. It is anticipated the J&J will be responsible for conducting all of the work under each such Late Stage Development Plan, subject to the assistance of Arena as contemplated in Section 3.2. J&J will be responsible for updating and amending each Late Stage Development Plan at least yearly, based on the progress and results of the applicable development program, and any relevant progress and results from development of Development Compounds, which shall be submitted to the Arena for review and comment.

3.5 Ongoing Disclosure Regarding Development. J&J will keep Arena informed about all of J&J's efforts to develop the Development Compounds, including all results and data from such development efforts, progress towards meeting all goals and milestones in each Development Plan, significant findings and developments, any reasons for any delays in meeting milestones or timelines in any Development Plan, and any proposed changes in the plan. Such

disclosures will be made in a written report (each, a "***Development Report***") provided to Arena at least once semi-annually, or more often at J&J's election or as required in Section 3.3. Without limiting the generality of the foregoing, the Development Reports will contain the following:

(a) Summary of development results and data, including progress of initiation of sites and enrollment of patients in clinical trials and any significant events occurring in the clinical development program, including adverse events;

(b) filing of an IND or NDA with respect to any Development Compound in any jurisdiction;

(c) initiation of Phase I Clinical Trials, Phase IIa Clinical Trials, Phase IIb Clinical Trials, and Phase III Clinical Trials with respect to any Development Compound in any jurisdiction; and

(d) identification of significant development results and clinical trial progress and Regulatory Approvals with respect to Development Compounds in any jurisdiction.

In addition, upon request by Arena on reasonable advance notice, J&J shall make those of its employees with managerial responsibility over development of Development Compounds who are informed as to the status, results and plans of the development programs for the Development Compounds reasonably available at their respective places of employment to consult with Arena and answer to the best of their ability all of Arena's questions regarding such development programs.

3.6 Arena Conduct of Early Development.

(a) With respect to the ongoing J&J development program under an Early Development Plan, if J&J does not comply with its diligence obligations under Section 3.7(a) with respect to such Early Development Plan, Arena may, on written notice to J&J (an "***Early Development Election***"), elect to assume control of conducting the Early Stage Development of the applicable Development Compound under such Early Development Plan. If Arena makes an Early Development Election as to a particular Development Compound and its respective Early Development Plan, then the JSC, and appropriate additional representatives of each Party with development expertise, will meet as soon as possible thereafter and agree on a transition plan for Arena to undertake the control of such Early Development Plan. The Parties shall each act in good faith at such meeting to achieve a plan that effects a transition that is as smooth and efficient and quick as possible. As to such Early Development Plan, Arena shall immediately direct and control the ongoing conduct of development of the Development Compound under the terms of such Early Development Plan using its own resources or a combination of Arena and J&J resources as the Parties agree pursuant to the transition plan.

(b) All Development Costs incurred by either Party in the conduct of any Early Development Plan for which Arena has made an Early Development Election shall be shared by the Parties on a 50/50 basis after such election. Within 20 Business Days of the end of each month during which such Arena-controlled development is ongoing, each Party shall provide to the other a detailed accounting of all Development Costs incurred by such Party in its conduct of

such development efforts in accordance with the applicable Early Development Plan(s) and Arena's direction. The Parties shall then reconcile these reports within 20 Business Days of the end of such month, with the Party that bore less than its 50% share of the total of such Development Costs incurred by the Parties during the month paying the other Party, within 20 Business Days of such reconciliation, an amount so that each Party bore an equal share of such Development Costs.

3.7 Development Diligence.

(a) J&J will use Diligent Efforts to conduct the development (including clinical trials and other studies) on Development Compounds during Early Stage Development, to conduct all the tasks and meet on a timely basis all the objectives and milestones under each Early Development Plan, and in such a manner as to achieve successful conclusion of Phase 2a Trials of the Development Compounds in Early Stage Development as soon as practicable throughout the Territory where it is commercially appropriate to do so. J&J shall achieve the following regulatory milestone events with respect to each Development Compound by the "Time to Complete" dates indicated below, subject to any applicable extensions of such deadlines as provided in the following (the "Diligence Milestones"):

Diligence Milestones	Time to Complete
1. Provide First dose to fifth patient or volunteer in Phase I Clinical Trial of a Development Compound	Within twenty-four (24) months from Drug Evaluation Acceptance of a Development Compound.
2. Provide first dose to fifth patient in Phase IIa Clinical Trial of a Development Compound	Within twenty-four months (24) of achieving Milestone 1.

(b) If, notwithstanding J&J's exercise of Diligent Efforts, J&J is materially delayed in its ability to pursue Early Stage Development of a Development Compound due to matters outside of its control (such as delays imposed for the reason set forth below), and such delays cause J&J to be unable to meet one of the above milestones by the applicable deadline date, then J&J may notify Arena of the specific delay and the causes of such delay. Arena and J&J shall then discuss the matter in good faith and agree in writing on a reasonable extension of the applicable deadline (and, if appropriate, reasonable extensions of the subsequent deadlines if any) for a period reasonably sufficient to resolve the problem, including if necessary as needed to identifying a substitute Development Compound. Without limitation, the following are examples of the types of situations in which J&J shall be entitled to seek such extension: If J&J, after Drug Evaluation Acceptance of a Development Compound, initiates development of GLP synthesis, toxicology studies, ADME studies, formulation or Phase I Clinical Trials of a Development Compound, and such Development Compound fails in such development or is delayed in such development activities, either (i) for reasons that are out of J&J's control and

could not reasonably have been anticipated, or (ii) because of unanticipated new or different requirements imposed by a regulatory agency.

(c) If the Parties disagree as to whether J&J is entitled to an extension of the Time to Complete for any Milestone specified in the above table, or cannot agree on the length of a reasonable extension, then upon the written request by either Party such shall be resolved in accordance with Article 13. However, notwithstanding any other provision of Article 13, the arbitration shall be concluded within sixty (60) days after the Panel of Arbitrators has been appointed in accordance with Section 13.2, and the time periods recited in Section 13.2 shall be reset accordingly to achieve the sixty (60) day completion date. After the commencement of Phase IIa Clinical Trials for a particular Development Compound, J&J's diligence obligations as to such Development Compound shall be that specified in the first sentence of Section 3.7(a) and in Section 3.7(e).

(d) If in conducting Early Stage Development of a Development Compound, J&J fails to meet any Diligence Milestone by the applicable deadline for such development program (as such deadline may be extended by written agreement of the Parties), then Arena may elect to proceed under Section 3.6 above. If J&J otherwise is not exercising Diligent Efforts in Early Stage Development, then Arena may submit the matter for resolution under the provisions of Article 13.

(e) J&J will use Diligent Efforts to conduct the development (including clinical trials and other studies) of Development Compounds during Late Stage Development, in such a manner as to obtain Regulatory Approval of Collaboration Products as soon as practicable, in each country and regulatory jurisdiction throughout the Territory where it is commercially appropriate to do so. If Arena believes that J&J is not complying with the above diligence obligations, then Arena may submit the matter for resolution under the provisions of Article 13.

3.8 Regulatory Matters. J&J will have the sole authority and responsibility, at its cost and expense, but subject to the following terms, for all regulatory matters relating to conducting clinical trials on Development Compounds and seeking and obtaining Regulatory Approvals, including: (a) filing, maintaining and updating any INDs and NDAs for Development Compounds and Collaboration Products (as applicable), (b) reporting all adverse drug experience events and serious adverse drug experience events, to the extent required and on the applicable report forms, to the FDA and/or other appropriate governmental or regulatory authorities, (c) submitting or filing with the FDA the required product labeling and related marketing materials for Collaboration Products, and (d) handling medical and technical complaints and disputes with the FDA, patients and physicians regarding any Collaboration Product. J&J (through the JSC, if it is still meeting) will consult with Arena in all stages of planning for and seeking INDs and Regulatory Approvals and in preparing NDAs for the Collaboration Products throughout the Territory. J&J will provide Arena with regular reporting on the status and progress in its efforts to obtain INDs and Regulatory Approvals, and of any material communications with the FDA. Arena will report in writing to J&J within five calendar days (and within 24 hours in the case of the death of or serious injury to a subject or patient taking a Collaboration Product) any information that comes into Arena's possession relevant to J&J's responsibilities under this Section 3.8 and will provide J&J with such assistance as is reasonably requested by J&J from

time to time to perform its responsibilities under this Section 3.8, provided that the actual internal and external costs of Arena associated with such assistance will be reimbursed by J&J.

3.9 Product Recalls. J&J (and its Affiliates and Sublicensees, as applicable) will have sole authority over and responsibility for any and all proposed, recommended or required recalls of Collaboration Products throughout the Territory.

4. COMMERCIALIZATION OF COLLABORATION PRODUCTS

4.1 Exclusive Commercialization Rights. J&J will use Diligent Efforts to seek to obtain Regulatory Approval of Collaboration Products as soon as practicable, in each country and regulatory jurisdiction throughout the Territory where it is commercially reasonable to do so. Subject to the foregoing, and to the other terms and conditions of this Agreement (including Section 3.6), J&J will have the sole decision on the Development Compounds (if any) it will include in Collaboration Products for which it files regulatory applications seeking Regulatory Approvals, and will control and have exclusive rights over the worldwide commercialization of all approved Collaboration Products, including the worldwide supply of Collaboration Products for use in all such commercialization activities. J&J will be solely responsible for all costs and expenses in the commercialization of Collaboration Products.

4.2 Commercial Diligence. For each Collaboration Product that achieves Regulatory Approval in a particular country or jurisdiction, J&J will use Diligent Efforts to commercialize and sell the Collaboration Product in such country or jurisdiction. If Arena believes that J&J is not complying with the above diligence obligations, then Arena may submit the matter for resolution under the provisions of Article 13, including Section 13.4.

4.3 Commercialization Efforts Reporting. J&J will keep Arena informed about all of J&J's efforts to commercialize the Collaboration Products, including summaries of J&J's (and its Affiliates' and Sublicensees') global marketing plans (as updated), progress towards meeting the goals and milestones in the global marketing plan, significant developments in the commercialization of the Collaboration Products, any reasons for any deviations or variances (either in time or in sales or other numerical figures) in meeting sales projections, milestones or timelines in any such global marketing plans, and any proposed changes in the marketing plans. Such disclosures will be made in a written report (each, a "***Marketing Report***") provided to Arena at least once every six months while Collaboration Products are being sold anywhere in the Territory.

Upon request by Arena on reasonable advance notice, J&J shall make those of its and its Affiliates' employees with managerial responsibility over promotion, marketing and sales of Collaboration Products who are informed as to the status, results and plans of the commercialization efforts for the Collaboration Products reasonably available at their respective places of employment to consult with Arena and answer to the best of their ability all of Arena's questions regarding such commercialization efforts and results. J&J shall also require that its Sublicensees make their applicable employees available to meet with Arena on the same basis as the foregoing.

5. LICENSES AND RELATED RIGHTS AND OBLIGATIONS

5.1 License Grants.

(a) By Arena.

(i) Research License. Subject to the terms and conditions of this Agreement, Arena hereby grants to J&J and its Affiliates, during the Research Term and for one year thereafter, a co-exclusive, worldwide, royalty-free license, without the right to sublicense, under the Arena Know-How, the Arena Research Patents and Arena's interest in the Joint Patents solely to perform J&J's obligations under the Research Plan to seek to identify and to conduct research on Active Compounds.

(ii) Development License. Subject to the terms and conditions of this Agreement, Arena hereby grants to J&J an exclusive (even as to Arena, except for Arena's rights as provided in Article 3), worldwide, royalty-free license, with the right to sublicense to J&J Affiliates, under the Arena Technology and Arena's interest in the Joint Patents solely to conduct development on Development Compounds, and to make, have made, and use such Development Compounds as needed for such development efforts. J&J will at all times be responsible for the performance of its Sublicensees and Third Party contractors under this Agreement.

(iii) Commercialization License. Subject to the terms and conditions of this Agreement, Arena hereby grants to J&J an exclusive (even as to Arena), worldwide, royalty bearing license, with the right to sublicense, under the Arena Know-How, Arena Commercialization Patents and Arena's interest in the Joint Patents to make, have made, use, sell, offer for sale, and import Collaboration Products in the Field of Use. J&J will at all times be responsible for the performance of its Sublicensees and Third Party contractors under this Agreement.

(b) By J&J. Subject to the terms and conditions of this Agreement, J&J hereby grants to Arena and its Affiliates, during the Research Term, a non-exclusive, worldwide, royalty-free license, without the right to sublicense, under the J&J Know-How and J&J Research Patents and J&J's interest in the Joint Patents solely to perform Arena's obligations under the Research Plan and for Arena to conduct such development of Development Compounds as is permitted or allocated to Arena under the terms of Article 3. Subject to the terms and conditions of this Agreement, J&J hereby grants to Arena and its Affiliates, commencing on the first anniversary of the end of the Research Term and continuing thereafter, the exclusive, worldwide, fully-paid, royalty-free license (with full rights to sublicense) under the J&J Technology and J&J's interest in the Joint Patents solely to make, have made, use, sell, offer for sale, and import products containing any Active Compound that is not a Selected Compound. For clarity, the foregoing excludes any rights with respect to all Selected Compounds and all Collaboration Products, which rights are retained exclusively by J&J (except as otherwise provided in Article 11).

5.2 Retained Rights; No Implied Licenses. Arena hereby expressly reserves the right to practice, and to grant licenses under, the Arena Technology and under its interest in the Arena Joint Patents (as defined in Section 8.1) for any and all purposes other than the specific

purposes for which J&J has been granted an exclusive license under Section 5.1(a)(ii) or (iii). J&J hereby expressly reserves the right to practice, and to grant licenses under, the J&J Technology and under its interest in the J&J Joint Patents (as defined in Section 8.1) for any and all purposes other than the specific purposes for which Arena has been granted a license under Section 5 or Section 11.6(b). No right or license under any Patents or Information is granted by either Party or will be granted by either Party by implication. In particular, but not in any way limiting the foregoing, no right or license is granted to a proprietary compound that is not an Active Compound, or under any Patent claim that claims specifically the composition of matter of such proprietary compound, even if there is by a claim in the Arena Patents or J&J Patents that claims the combination of such proprietary compound with an Active Compound as a combination. The only rights and licenses granted by one Party to the other under this Agreement are or will be granted only as expressly provided in the other terms of this Agreement. J&J covenants that J&J and its Affiliates will not practice any of the Arena Technology except as expressly permitted under Section 5.1. Arena covenants that Arena and its Affiliates will not practice any of the J&J Technology except as expressly permitted under Section 5.1 or Article 11. Notwithstanding anything to the contrary, J&J and its Affiliates will not have the right to grant sublicenses under any rights granted under this Agreement to any Active Compounds unless and until the particular Active Compound has been selected as a Selected Compound and Development Compound and has commenced Phase I clinical trials. For clarity, commencing on the first anniversary of the end of the Research Term and for all times thereafter during the Term of the Agreement, J&J and its Affiliates and Sublicensees will not have any rights to any Active Compounds that are not Selected Compounds, and all rights in Active Compounds that are not Selected Compounds will revert to and will be held exclusively by Arena (and/or its subsequent licensees or successors).

5.3 Exclusivity of Program. Each Party expressly covenants and agrees to the other Party that such Party and its Affiliates will not conduct any research or development activity, or license any Third Party to conduct any research or development activity, during the Research Term, that seeks to identify or research or develop any Active Compounds, except pursuant to the Research Program under this Agreement. The Parties acknowledge and agree that any compounds discovered, identified, acquired or in-licensed by either Party during the one year period after the end of the Research Term which meet the requirements of Section 1.2(c)(i) and (ii) will be deemed to be Active Compounds to the extent such compounds are discovered or identified by or on behalf of the Party or its Affiliate, or otherwise become known to such Party or Affiliate, to meet such requirements. If either Party (or its Affiliate) knowingly in-licenses or acquires a compound that meets the definition of an Active Compound prior to the first anniversary of the end of the Research Term, such compound shall be deemed an Active Compound. J&J does not in any way represent or warrant that, commencing solely after the end of the Research Term, a Collaboration Product developed under this Agreement will be the only drug that J&J will at the same time develop or commercialize for identical or similar therapeutic uses.

6. FEES AND PAYMENTS

6.1 Upfront Fee. J&J will pay to Arena a non-refundable, non-creditable upfront fee of seventeen million five hundred thousand dollars ($17,500,000) within 20 days of the Effective Date.

6.2 Research Funding. During the initial Research Term, J&J will make research funding payments to Arena for eight FTEs per year, quarterly in advance, at the rate of $300,000 per FTE per year. The first payment under this Section 6.2 will be made within 20 Business Days of the Effective Date and each subsequent payment will be made on the first day of each Calendar Quarter during the Research Term (with the first and last such payments being adjusted pro rata in proportion to: (i) the number of days from the Effective Date to the end of 2004, and (ii) the number of days from the beginning of the Calendar Quarter in which the Research Term ends, until the end of the Research Term, respectively). Any commitment by Arena of more than eight (8) FTEs to the Research Program during the Research Term will be subject to negotiation by the Parties and require the mutual written agreement of the Parties. If J&J extends the Research Term for one additional year beyond the second anniversary of the Effective Date pursuant to Section 2.13, then the FTE rate for research funding payments for such extended term beyond the second anniversary will be increased by an amount equivalent to the change, on a percentage basis, in the Bureau of Labor Statistics Consumer Price Index for all Urban Consumers that has occurred between the Effective Date and the second anniversary thereof. Research funding payable to Arena by J&J for Arena FTEs devoted to the Research Program for any subsequent extensions of the Research Program will be subject to negotiation by the Parties and require the mutual written agreement of the Parties.

6.3 Milestone Payments.

(a) For each Development Compound or Collaboration Product (as applicable), and except as otherwise provided in subsections (c) and (f) below, J&J will pay to Arena, within 20 Business Days following the first occurrence of a Milestone Event listed below with respect to such Development Compound or Collaboration Product (whether such milestone event is achieved by J&J, its Affiliate or any of their respective Sublicensees), the milestone payment applicable to such Milestone Event as set forth below.

Milestone Event	Milestone Payment
1. Acceptance of Active Compound as Development Compound by Drug Evaluation Acceptance	$2,500,000
2. First administration of Development Compound to the fifth human subject in a Phase I Clinical Trial	$5,000,000 *
3. First administration of Development Compound to the fifth human subject in a Phase IIa Clinical Trial	$5,000,000 *
4. First administration of Development Compound to the fifth human subject in a Phase IIb Clinical Trial	$15,000,000 *
5. First administration of Development Compound to the fifth human subject in a Phase III Clinical Trial	$20,000,000 *
6. First acceptance for filing of NDA for product containing Development Compound by the FDA in the United States or equivalent in an EU Major Market Country	$20,000,000 *
7. First regulatory approval of Collaboration Product containing Development Compound for sale in the United States	$30,000,000 *
8. First regulatory approval of Collaboration Product containing Development Compound for sale in an EU Major Market Country	$20,000,000 *
9. First regulatory approval of Collaboration Product containing Development Compound for sale in Japan	$15,000,000 *
10. First achievement of worldwide annual Net Sales of $1,000,000,000 of the Collaboration Product containing the Development Compound	$50,000,000 * *
11. First achievement of worldwide annual Net Sales of $2,000,000,000 of the Collaboration Product containing the Development Compound	$50,000,000 * *

(b) In the event that J&J (or its Affiliate or Sublicensee) achieves one of the Milestone Events numbers 3 through 9 set forth in subsection (a) above in developing a particular Development Compound for an Indication (and, consequently, has the obligation to pay Arena the associated milestone payment under subsection (a)), and J&J (or its Affiliate or Sublicensee) then (or simultaneously) achieves such Milestone Event in developing the Development Compound for a different Indication, then, within 20 days following the first occurrence of such Milestone Event in developing the Development Compound for such different Indication, J&J will pay Arena a milestone payment equal to 50% of the milestone payment applicable to such Milestone Event as set forth in the table in subsection (a) above. If J&J (or its Affiliates or Sublicensees) is developing a particular Development Compound for

more than one Indication, then the milestone payments for the second Indication (in addition to milestone payments for the first Indication) become due and payable to Arena within 20 days of the occurrence of the applicable Milestone Event with respect to the second Indication.

(c) If the development of a Development Compound is abandoned after one or more of the milestone payments under Section 6.3(a) has been made (such Development Compound, the ***"Discontinued Compound"***), and J&J (or its Affiliate or Sublicensee) then commences and conducts development of another Development Compound in a development program pursuing the same Indication (which development program may also include one or more different Indications) as was being pursued in the development program for the Discontinued Compound (such replacement Development Compound, the ***"Replacement Compound"***), then only those milestone payments under this Section 6.3 that were not previously made with respect to such Discontinued Compound will be payable with respect to achievement by the Replacement Compound of Milestone Events as provided above. For clarity, there can be only one Replacement Compound with respect to a Discontinued Compound at any one time.

(d) For purposes of the Milestone Events in subsection (a) above, acceptance for filing of the applicable regulatory approval application and regulatory approval by the applicable pan-European Union regulatory authority will be deemed to meet the applicable Milestone Events (i.e., numbers 6 and 8, respectively) in an "EU Major Market Country".

(e) In the event a Milestone Event is achieved (either under subsection (a) or subsection (b) above) with respect to a particular Development Compound, all prior Milestone Events (in the applicable subsection) will be deemed to have been concurrently achieved, and to the extent payment for any such prior Milestone Event has not been made, J&J within twenty (20) Business Days will pay Arena for any such Milestone Events deemed to have been achieved.

(f) For clarity, if J&J develops a Collaboration Product in one or more different dosage forms or formulations, J&J will owe milestone payments only for the first achievement of the applicable Milestone Events above (including the payments for the first achievement of the applicable Milestone Events for a second Indication if applicable) for such Collaboration Products.

6.4 Royalties. J&J will pay to Arena royalties on Net Sales where the royalty rate is determined based on the aggregate amount of Net Sales in the Territory occurring in the particular calendar year as follows:

(a) Ten percent (10%) of the Net Sales occurring in the calendar year, until the aggregate amount of such Net Sales equals $1,000,000,000; *

(b) Twelve percent (12%) of that portion of the Net Sales occurring in the calendar year that is greater than $1,000,000,000 and is less than or equal to $2,000,000,000; and *

(c) Fifteen percent (15%) of all Net Sales occurring in the calendar year that are greater than $2,000,000,000. *

6.5 Royalty Term for Collaboration Products. As to sales of a particular Collaboration Product in a country, the royalty payments specified in Section 6.4 will be owed and payable for all sales of the Collaboration Product in such country occurring during the period (the "Royalty Term") commencing on the first Commercial Sale of the Collaboration Product in such country and ending upon the later of: (a) 10 years after the date of first Commercial Sale of the Collaboration Product in such country occurring after Regulatory Approval of marketing and sale in the country, and (b) the expiration of the last to expire (taking into account any applicable extension period) of the Arena Patents, Joint Patents or J&J Patents in such country containing a Valid Claim that claims the Collaboration Product or its manufacture or use.

6.6 Royalty Offsets. Royalties on Net Sales of a Collaboration Compound in a particular country shall be paid at the applicable rate set forth in Section 6.4 during the specific Royalty Term, except that such rate may be adjusted as provided below:

(a) If, in a given country during a calendar quarter for which royalties are being calculated under Section 6.4 for a particular Collaboration Product, Market Competition (as defined below) exists for such Collaboration Product in such country, then the royalty rate applicable to the sales of the Collaboration Product in such country during such quarter shall be reduced by 50%. As used herein, "Market Competition" means, as to a Collaboration Product, that J&J has provided Arena with competent written evidence (based on commercially-available market research data such as IMS) that another product (which is not a Collaboration Product) competitive with such Collaboration Product is being lawfully marketed and sold by a Third Party (which is not a Sublicensee) in the country at the applicable time, and such product contains as an active ingredient the Development Compound which is in the Collaboration Product, and the sales of such competitive product (in units sold) in such quarter in the country exceeds thirty percent (30%) of the total aggregate sales (in units sold) of such competitive product combined with sales of the Collaboration Product in such country during such quarter; *provided that* Arena may dispute the claim by J&J that Market Competition exists, by written notice within 45 days of J&J providing the above evidence, which dispute will be resolved under the terms of Article 13.

(b) If J&J is required to make royalty payments, based on the sales of a particular Collaboration Product, to a Third Party under a patent license granted to J&J under a patent controlled by the Third Party that claims the Development Compound in the Collaboration Product or its use or its manufacture, then J&J may credit, against royalty payments otherwise due to Arena under Section 6.4 for sales of such Collaboration Product, fifty percent (50%) of the amount of the royalty payments paid by J&J to the Third Party based on such sales, but subject to the limitation in sub clause (c) below. J&J will use Diligent Efforts to minimize the amount of any such royalty payments to a Third Party, and in particular, J&J is not permitted take a license under the Third Party patent where such license grants rights to products other than the Collaboration Products, or where J&J is obtaining rights under other intellectual property of the Third Party, *unless* the amounts payable by J&J for such license rights are equitable across all the rights granted to J&J and are not biased towards payment obligations with respect to sales of the Collaboration Products.

(c) In no event will the amount of royalties payable to Arena by J&J, for the sales in a country of a Collaboration Product in a country during a specific royalty period, be

reduced by the operation of this Section 6.6 by more than 50% of the amount that would otherwise be owed by J&J under Section 6.4, absent application of this Section 6.6. *

7. PAYMENT; RECORDS; AUDITS

7.1 Payment; Reports. Within twenty (20) Business Days after the end of each Calendar Quarter for which royalty fees are payable by J&J to Arena with respect to Net Sales pursuant to Section 6.4, J&J shall submit to Arena a report, on a country by country basis, providing in reasonable detail an accounting of all Net Sales (including an accounting of all unit sales of Product) made during such calendar quarter and the calculation of such applicable royalty fees under Section 6.4. Within forty (40) Business Days after the end of each Calendar Quarter for which royalty fees are payable by J&J to Arena, J&J shall pay Arena all royalties payable by it under Section 6.4 by wire transfer. J&J will pay Arena royalties on Net Sales of each Collaboration Product invoiced by J&J, its Affiliates and their respective distributors and Sublicensees at the rates shown in Section 6.4.

7.2 Exchange Rate; Manner and Place of Payment. All payments to be made by J&J to Arena shall be made in U.S. Dollars, to an Arena bank account able to receive U.S. Dollars. Royalty fee payments by J&J to Arena shall be converted to U.S. Dollars in accordance with the following: the rate of currency conversion shall be calculated using a simple average of mid-month and month-end rates as published by Brown Brothers Harriman, 59 Wall Street, NY, NY 10005 (or such other conversion rate as the Parties agree in writing in the event such rates are not available).

7.3 Tax Matters.

(a) J&J Payments to Arena Without Withholding. J&J will make all payments to Arena under this Agreement without deduction or withholding for Taxes except to the extent that any such deduction or withholding is required by law in effect at the time of payment; provided that J&J shall use commercially reasonable efforts to minimize any such required deductions or withholdings to the extent permitted by applicable laws, rules and regulations.

(b) J&J Payment of Tax. Any Tax required to be withheld on amounts payable under this Agreement will promptly be paid by J&J on behalf of Arena to the appropriate governmental authority, and J&J will furnish Arena with proof of payment of such Tax. Any such Tax required to be withheld will be an expense of and borne by Arena. J&J will give notice of its intention to begin withholding any such Tax in advance and cooperate to use reasonable and legal efforts to reduce such Tax on payments made to Arena hereunder.

(c) Cooperation Between J&J and Arena. J&J and Arena will cooperate with respect to all documentation required by any government taxing authority or reasonably requested by J&J to secure a reduction in the rate of applicable withholding Taxes.

(d) Arena Compensation for J&J's Failure to Withhold. If J&J had a duty to withhold Taxes in connection with any payment it made to Arena under this Agreement but J&J

failed to withhold, and such Taxes were assessed against and paid by J&J, then Arena will indemnify and hold harmless J&J from and against such Taxes (excluding penalties), subject to Arena's right to dispute or protest the withholding of the Taxes, and J&J shall indemnify and hold harmless Arena from and against any penalties with respect to such Taxes. If J&J makes a claim under this Section 7.3(d), it will comply with the obligations imposed by Section 7.3(b) as if J&J had withheld taxes from a payment Arena.. Notwithstanding anything to the contrary in this Section, Arena shall not be responsible for paying to J&J any penalties attributable to any period between the date the withholding Taxes were first due by J&J and ending thirty (30) calendar days after written notice by J&J to Arena of such assessment or proposed assessment.

(e) Tax. Solely for purposes of this Section, "Tax" or "Taxes" means any present or future taxes, levies, imposts, duties, charges, assessments or fees of any nature (including interest, penalties and additions thereto) that are imposed by a government taxing authority on Arena's receipt of payments hereunder. Notwithstanding the foregoing, "Tax" or "Taxes" shall not include charges, value-added taxes, taxes imposed on J&J's income, or assessments or fees of any nature (or any interest, penalties or additions thereto) imposed by the FDA or any related or successor agency.

(f) Protest. J&J shall promptly notify Arena in writing of any assessment, proposed assessment or other claim for any additional amount of Tax assessed by the United States. Notwithstanding any other provision of this Section, Arena may, at its own expense, protest any assessment, proposed assessment, or other claim by any governmental authority for any additional amount of Tax or seek a refund of such amounts paid if permitted to do so by law or if the payment of such amounts are its ultimate contractual responsibility under the terms of this Agreement. J&J shall cooperate with Arena in any protest by providing records, giving testimony and providing such additional information or assistance as may reasonably be necessary to pursue such protest.

7.4 Audits.

(a) Each Party, its Affiliates and Sublicensees shall keep or cause to be kept complete and accurate records which are relevant to any payment to be made under this Agreement, including without limitation, records on Net Sales and royalty calculations, and records relating to the milestone events covered in Section 6.3. At the request and expense of either Party, the other Party, its Affiliates and its Sublicensees shall permit an independent certified public accountant appointed by such Party and reasonably acceptable to the other Party, at reasonable times and upon reasonable notice, to examine such records as may be necessary to determine, with respect to any calendar quarter ending not more than 36 months prior to such Party's request, the correctness or completeness of any report or payment made under this Agreement.

(b) The foregoing right of examination may be exercised only once per 12 month period and only once with respect to any such periodic report and payment. Results of any such examination shall be (a) limited to Information relating to the applicable reporting and payment obligations, and (b) made available to both Parties. The Party requesting the audit shall bear the expenses of such independent certified public accountant related to the performance of any such audit, unless such audit discloses a variance to the detriment of the auditing Party of

more than five percent (5%) from the amount of the original report, or payment calculation. In such case, the Party being audited shall bear the full cost of the performance of such audit.

(c) If such audit reveals that the audited Party, its Affiliate or Sublicensee has failed to accurately report information, and the result was under payment of amounts owed, the relevant Party shall promptly pay any amounts due to the inspecting Party together with interest on such amount, calculated from the date originally owed at the interest rate set forth in Section 7.5. In the event of overpayment, any amount of such overpayment shall be fully creditable against amount payable in subsequent periods.

(d) Audit Disagreement. If there is a dispute between the Parties related to GAAP compliance following any audit performed pursuant to this Section 7.4, either Party may refer the issue (an "Audit Disagreement") to an independent certified public accountant for resolution. In the event an Audit Disagreement is submitted for resolution by either Party, the Parties shall comply with the following procedures:

(i) The Party submitting the Audit Disagreement for resolution shall provide written notice to the other Party that it is invoking the procedures of this Section.

(ii) Within thirty (30) days of the giving such notice, the Parties shall jointly select a recognized international accounting firm to act as an independent expert to resolve such Audit Disagreement.

(iii) The Audit Disagreement submitted for resolution shall be described by the Parties to the independent expert, which description may be in written or oral form, within ten (10) days of the selection of such independent expert.

(iv) The independent expert shall render a decision on the matter as soon as practicable.

(v) The decision of the independent expert shall be final and binding and shall not be subject to Article 13 hereof, unless such Audit Disagreement involves alleged fraud, breach of this Agreement or construction or interpretation of any of the terms and conditions hereof.

(vi) All fees and expenses of the independent expert, including any Third Party support staff or other costs incurred with respect to carrying out the procedures specified at the direction of the independent expert in connection with such Audit Disagreement, shall be borne by the Party against whom such expert rules.

7.5 Late Payments. In the event that any payment due under this Agreement is not made when due, the payment will accrue interest from the date due until paid on an annual basis at a rate of 12% per annum, *provided, however*, that in no event will such rate exceed the maximum legally permissible annual interest rate. The payment of such interest will not limit Arena from exercising any other rights it may have as a consequence of the lateness of any payment. *

8. INTELLECTUAL PROPERTY

8.1 Ownership of Inventions. Inventorship of all Collaboration Inventions conceived and/or reduced to practice will be determined in accordance with the rules of inventorship under United States patent laws. Arena will own the entire right, title and interest in and to all Collaboration Inventions made or discovered solely by the employees and contractors of Arena (or its Affiliates), together with all intellectual property rights therein, subject only to the license rights in such Collaboration Inventions granted to J&J pursuant to Section 5.1 to the extent such Collaboration Inventions qualify as Arena Technology. J&J will own the entire right, title and interest in and to all Collaboration Inventions made or discovered solely by employees and contractors of J&J (or its Affiliate or Sublicensee), subject only to the license rights in such Collaboration Inventions granted to Arena pursuant to Section 5.1 or 11.6 to the extent such Collaboration Inventions qualify as J&J Technology. All Collaboration Inventions that are made or discovered jointly by employees or contractors of J&J (or its Affiliate or Sublicensee) and employees or contractors of Arena (or its Affiliates) together with any intellectual property rights therein (the "Joint Inventions") shall be owned as follows: Arena shall own the entire right, title and interest in and to all Joint Inventions that are or relate directly to: the composition of matter of, or the use or manufacture of, an Active Compound or a compound based on or derived from an Active Compound (including any prodrug, ester, salt form, stereoisomer, crystalline polymorph, hydrate or solvate thereof); 19AJ or its use in discovering compounds or methods of treatment; or *in vivo* or *in vitro* screening methods or assays (the "Arena Joint Inventions"). Any Patent claiming an Arena Joint Inventions will be an "Arena Joint Patent". J&J shall own the entire right, title and interest in and to all Joint Inventions that are not Arena Joint Inventions (the "J&J Joint Inventions"). Any Patent claiming a J&J Joint Invention shall be a "J&J Joint Patent". Each Party will take such actions and sign such documents as reasonably needed to effect the assignment of its interest in the applicable Joint Inventions and related Joint Patents to the other Party as required above ownership.

8.2 Patent Prosecution and Maintenance.

(a) Arena Patents.

(i) Arena will have the sole (except as otherwise provided below) responsibility for the preparation, filing, prosecution and maintenance of, and conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to, the Arena Patents ("***Arena Patent Prosecution***"). The costs and expenses of such Arena Patent Prosecution will be borne by J&J, except that if Arena grants licenses under particular Arena Patents to any Third Party, Arena will give J&J notice of such licenses having been granted, and the Parties will then share the costs of Arena Patent Prosecution for such Arena Patents equally, or on some other basis as the Parties may agree in writing. Arena will invoice J&J for such costs and expenses on a monthly basis (with appropriate supporting documentation), and J&J will pay each such invoice within 45 days of receipt (subject only to J&J right to elect not to pay the costs and expenses for particular Arena Patents as provided in subsection (iii) below). Arena will keep J&J informed of the progress with regard to all activities relating to Arena Patent Prosecution, to the extent such progress reasonably relates to the claims in the Arena Patents that are licensed to J&J under this Agreement. More specifically, Arena shall provide to J&J copies of all proposed

* *CONFIDENTIAL TREATMENT REQUESTED*

filings and patent office responses and of all office actions and other material communications from patent offices relating to such prosecution efforts, to the extent related to the Arena Patent claims that are licensed to J&J, a reasonable time in advance of any proposed filing or required response, and J&J will have the right to comment on any such filing or response, and Arena will consider in good faith the timely received requests and suggestions of J&J with respect to such filings or responses and Arena's strategies for filing and prosecuting such Arena Patents.

(ii) If Arena intends to abandon or not maintain any Arena Patent that claims a Selected Compound or its manufacture or use or that specifically claims 19AJ or its use in discovering modulators or in a method of treatment, and Arena is not abandoning such Arena Patent in favor of another Arena Patent, Arena will provide reasonable prior written notice to J&J of such intention to abandon (which notice will, in any event, be given no later than 60 days prior to the next deadline for any action that may be taken with respect to such Arena Patent with the U.S. Patent & Trademark Office or any foreign patent office) and provide J&J the opportunity to assume responsibility for prosecuting and maintaining such Arena Patent. In the event that J&J, in its sole discretion, elects to assume responsibility for prosecuting and maintaining such Arena Patent, J&J shall have the right to prosecute such Arena Patent, but such right being limited to prosecuting claims specifically covering an invention comprising a Selected Compound or its manufacture or use, or the genus of compounds containing one or more Selected Compounds, or 19AJ or its use in discovering modulators or in a method of treatment (and J&J shall not have the right to prosecute any other claims that may have existed in such Patent), and within 60 days of written notice by J&J that it will assume such responsibility, Arena will effect the assignment of all of its right, title and interest in such Arena Patent to J&J (except as limited by the foregoing) by executing all necessary documents, and such Patent will then be deemed to be a J&J Patent, and J&J will be deemed to grant to Arena a non-exclusive, fully-paid, royalty-free license in the applicable country (or jurisdiction) for all uses and purposes other than the manufacture, use, import, offer for sale and sale of Selected Compounds and Collaboration Products.

(iii) As to any particular Arena Patent in a country or jurisdiction, J&J may elect, in writing to Arena, to cease paying any future incurred costs and expenses for the ongoing prosecution and/or maintenance of such Arena Patent, in which case such Arena Patent will be excluded from the scope of all license rights granted to J&J under Section 5.1, and J&J will lose all rights in the applicable country or jurisdiction under such Arena Patent and with regards to any Active Compound claimed or covered by such Arena Patent and such Arena Patent will not be considered in determining whether or not royalties are owed to Arena by J&J based on Net Sales in the applicable country or jurisdiction. * *

(b) J&J Patents.

(i) J&J will be solely responsible (except as otherwise provided in Section 11.6(b)(viii)) for the preparation, filing, prosecution and maintenance of, and conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to, the J&J Patents ("***J&J Patent Prosecution***"), at J&J's sole expense. As to all J&J Patents that claim an Active Compound or its manufacture or use, or that relate to 19AJ or its use in discovering modulators of 19AJ or in treating diseases or conditions (each, a "***J&J Compound Patent***"), J&J

will keep Arena informed of the progress with regard to all activities relating to the J&J Patent Prosecution of the J&J Compound Patents, including providing to Arena copies of all proposed filings and patent office responses and of all office actions and other material communications from patent offices relating to such prosecution efforts a reasonable time in advance of any proposed filing or required response, and Arena will have the right to comment on any such filings and responses. J&J will consider in good faith the timely received requests and suggestions of Arena with respect to such filings or responses and Arena's strategies for J&J Patent Prosecution.

(ii) If J&J intends to abandon any J&J Compound Patent, and J&J is not abandoning such J&J Compound Patent in favor of another J&J Compound Patent, J&J shall provide reasonable prior written notice to Arena of such intention to abandon (which notice shall, in any event, be given no later than 60 days prior to the next deadline for any action that may be taken with respect to such J&J Compound Patent with the U.S. Patent & Trademark Office or any foreign patent office) and provide Arena the opportunity to assume responsibility for prosecuting and maintaining such J&J Compound Patent.

(c) Joint Patents. Arena will have the sole responsible for the preparation, filing, prosecution and maintenance and conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to the Arena Joint Patents. J&J will have the sole responsible for the preparation, filing, prosecution and maintenance and conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to the J&J Joint Patents. The Party conducing the Joint Patent Prosecution of a Joint Patent will consult with the other Party as to the prosecution strategy and will keep such Party informed as to the progress and all activities relating to the Joint Patent Prosecution, including providing to the Party copies of all proposed filings and patent office responses and of all office actions and other material communications from patent offices relating to such prosecution efforts a reasonable time in advance of any proposed filing or required response, and such Party will have the right to comment on any such filings and responses. The prosecuting Party will consider in good faith the requests and suggestions of the other Party with respect to such filings or responses and the strategies and activities relating to such Joint Patent Prosecution. If the prosecuting Party intends to abandon any Joint Patent that it is responsible for, such Party will provide reasonable prior written notice to the other Party of such intention to abandon or decline responsibility (which notice will, in any event, be given no later than 60 days prior to the next deadline for any action that may be taken with respect to such Joint Patent with the U.S. Patent & Trademark Office or any foreign patent office), and the other Party will have the right, at its expense, to prepare, file, prosecute, and maintain such Joint Patent. Except as set forth below, costs and expenses of prosecuting and maintaining Joint Patents will be borne by J&J. As to any particular Joint Patent in a country or jurisdiction that J&J has elected to cease paying any future incurred costs and expenses for the ongoing prosecution and/or maintenance of such Joint Patent, such Joint Patent will be excluded from the scope of all license rights granted to J&J under Section 5.1, J&J will effect the assignment of all of its right, title and interest in such Joint Patent to Arena by executing all necessary documents, and J&J will lose all rights in the applicable country or jurisdiction under such Joint Patent.

* *CONFIDENTIAL TREATMENT REQUESTED*

8.3 Cooperation of the Parties. Each Party agrees to use reasonable efforts to cooperate with the other Party in the preparation, filing, prosecution and maintenance of and conducting or defending any interferences or similar proceedings with respect to any Patents covered under this Agreement and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to any Patent claiming a Collaboration Product being developed or commercialized by J&J in accordance with this Agreement. Such cooperation includes, but is not limited to:

(a) executing all papers and instruments, or requiring its (and its Affiliates') employees or contractors, to execute such papers and instruments, so as to effectuate the ownership of Inventions set forth in Section 8.1, and Patents claiming or disclosing such Inventions, and to enable the other Party to apply for and to prosecute patent applications in any country; and

(b) promptly informing the other Party of any matters coming to such Party's attention that may affect the preparation, filing, prosecution or maintenance of or conducting or defending any interferences or similar proceedings with respect to any such Patents.

8.4 Infringement by Third Parties. Arena and J&J will promptly notify the other in writing of any alleged or threatened infringement or challenge to the validity or enforceability of any Arena Patent, J&J Patent or Joint Patent of which they become aware. Both Parties will use their diligent efforts in cooperating with each other to terminate such infringement or challenge without litigation. Arena will have the sole and exclusive right to defend or otherwise respond to any alleged invalidity or unenforceability of Arena Patents.

(a) Arena Patents – Field Infringement. With respect to infringement of an Arena Patent by the manufacture, use or sale by a Third Party of a compound that is a Selected Compound, which manufacture, use or sale is likely to have a material adverse effect on current or future sales of any Development Compound or Collaboration Product being researched, developed or commercialized by J&J or its Affiliate or Sublicensee (a "***Field Infringement***"), J&J may request that Arena bring an action or suit with respect to such Field Infringement. If J&J makes such request, Arena shall promptly initiate and conduct such action, using counsel mutually agreed to by the Parties, and J&J shall reimburse Arena on a monthly basis for all costs and expenses of conducting such action or suit, including all actions relating to defending the Arena Patents against invalidity, unenforceability and related challenges. If requested by J&J in writing, Arena will include J&J as a party, or, if Arena fails to do so, J&J may intervene as a party, in such action or suit, to the extent permitted by law, and in such regard may have counsel of its choosing and at its expense to represent J&J's interest in such action or suit, but Arena will control the conduct of the action or suit, and J&J shall not bring any claim against Arena based on the conduct of such action or suit. If Arena does not receive any such request from J&J within sixty (60) days after the Parties first are aware of such Field Infringement, then Arena may, at its discretion, choose to bring an action or suit at Arena's own expense. In any such action or suit brought by Arena, J&J will have the right, at its own expense, to be represented in any such action by counsel of its own choice, but shall not have any right to control or interfere with Arena's conduct of the suit or action. In no event shall J&J notify any Third Party of any alleged Field Infringement or bring any suit or other action against any Third Party seeking to enforce any Arena

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Patents against any alleged Field Infringement (or otherwise), without first obtaining Arena's prior written consent.

(b) J&J Patents. J&J will have the sole right to bring and control any action or proceeding with respect to infringement of any J&J Patent at its own expense and by counsel of its own choice.

(c) Joint Patents. Except as otherwise provided below or as agreed by the Parties in writing, Arena will have the sole right to bring and control any action or proceeding with respect to infringement of any Arena Joint Patent. If such infringement is a Field Infringement, Arena will bring such action or suit if so requested by J&J in writing within 60 days of becoming aware of such Field Infringement, using counsel mutually agreed to the Parties, and J&J shall reimburse Arena on a monthly basis for all costs and expenses of conducting such action or suit. J&J will have the right, at its own expense, to be represented in any such action by counsel of its own choice, but shall not have any right to control or interfere with Arena's conduct of the suit or action. J&J will have the sole right to bring and control any action or proceeding with respect to a Field Infringement of any J&J Joint Patent. For any infringement of a Joint Patent that is not a Field Infringement, the Parties will discuss and agree in good faith on the appropriate actions to be brought to deal with such infringement, and the terms of any such action including the sharing of costs for bringing such action and of any recovery from such action.

(d) Cooperation; Recovery. If a Party brings an infringement action in accordance with this Section 8.4, the other Party will cooperate fully, including, if required to bring such action, furnishing a power of attorney or being named as a Party plaintiff in the action. Except as otherwise agreed to by the Parties as part of a cost-sharing arrangement, any recovery realized by a Party as a result of a litigation or other action with respect to a Field Infringement will first be applied to reimburse Arena for any actual litigation costs and expenses borne by Arena and not yet reimbursed by J&J, and J&J for any actual litigation costs and expenses borne by J&J (including amounts paid to Arena to reimburse Arena for its litigation costs), and any amounts remaining after such reimbursement (a "Net Recovery") will be: (i) paid to J&J if recovered by Arena, less 10% of such Net Recovery as compensation for the Arena efforts in conducting the litigation, or (ii) retained by J&J if recovered by J&J, and any such amounts of Net Recovery realized by J&J under (i) or (ii) above will be treated as Net Sales for purposes of this Agreement for which royalties will be due to Arena under the provisions of Article 6. Arena will have the sole right to bring and control, and to retain all recovery from, any action or proceeding with respect to infringement of any Arena Patent at its own expense and by counsel of its own choice with respect to any activities by a Third Party that are not Field Infringements.

8.5 Infringement of Third Party Rights. Each Party will promptly notify the other in writing of any allegation or claims by a Third Party that the activity of either of the Parties pursuant to this Agreement infringes or may infringe the intellectual property rights of such Third Party. The Parties will meet and discuss in good faith the appropriate steps to respond to any such allegations or claims, but the foregoing will not impede in any way the right of a Party to defend itself against legal actions. In the event that a Third Party brings an action for infringement against J&J for infringement of one or more claims covering the manufacture, sale

Parties under the following provisions of this Agreement will survive expiration or termination of this Agreement:

Sections 5.2, 7.3, 7.4, 7.5, 8.1, 8.3(a), 9.3, 9.4, 10.1, 10.2, 10.3, 10.4, 10.6, 14.1 and 14.2 and Articles 1, 11, 12, 13 and 14 of Agreement.

(d) Within 30 days following the expiration or termination of this Agreement, except to the extent and for so long as a Party retains license rights under Sections 11.6(a) or (b), each Party will deliver to the other Party any and all Confidential Information of the other Party in its possession or at the other Party's option, will destroy such Confidential Information and will certify to the other party in writing that it has so destroyed such Confidential Information.

11.7 Exercise of Right to Terminate. The use by either Party hereto of a termination right provided for under this Agreement will not in and of itself give rise to the payment of damages or any other form of compensation or relief to the other Party with respect thereto.

11.8 Damages; Relief. Subject to Sections 9.4 and 11.7 above, termination of this Agreement will not preclude either Party from claiming or seeking or being entitled to any other damages, compensation or relief that it may be entitled to which accrued prior to such termination based on the Agreement.

11.9 Rights in Bankruptcy.

(a) It is the intention of J&J and Arena that J&J's rights under this Agreement will remain in place if Arena files a petition in bankruptcy, is adjudicated as bankrupt or files a petition or otherwise seeks relief under any bankruptcy, insolvency or reorganization statue or proceeding, or a petition in bankruptcy is filed against it or is not dismissed within 60 days, or it becomes insolvent or makes an assignment for the benefit of creditors or a custodian, receiver or trustee is appointed for it or a substantial portion of its business or assets or admits in writing its inability to pay its debts as they become due (each a "Bankruptcy Event"). It is the intention of J&J and Arena that J&J's exclusive rights and licenses to commercialize and market Active Compounds and Collaboration Products in the Territory continue, without impairment, if and after any Bankruptcy Event. To that end, J&J may make direct arrangement with Arena's suppliers to obtain the Compound, and any related testing or other services, and to continue developing and commercializing Products.

(b) All rights and licenses granted under or pursuant to this Agreement by J&J or Arena are, and will otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that the Parties, as licensees of such rights under this Agreement, will retain and may fully exercise all of their rights and elections under the U.S. Bankruptcy Code. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against either Party under the U.S. Bankruptcy Code, the Party hereto that is not a Party to such proceeding will be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, and same, if not already in their possession, will be promptly delivered to them (i) upon any such commencement of a bankruptcy proceeding upon their written request

therefor, unless the Party subject to such proceeding elects to continue to perform all of its obligations under this Agreement, or (ii) if not delivered under (i) above, following the rejection of this Agreement by or on behalf of the Party subject to such proceeding upon written request therefor by the non-subject Party.

(c) If, under the Bankruptcy Code or successor similar law, a trustee in bankruptcy of Arena, or Arena, as debtor, desires to assign this Agreement to a Third Party in accordance with the Bankruptcy Code, the trustee or Arena, as the case may be (in either case, the "Debtor"), will notify J&J. The notice will set out the name and address of the proposed assignee, the proposed consideration for the assignment and all other relevant data about the proposed assignment. Nothing in this Section 11.8 is intended to impair any rights which J&J may have as a creditor in the bankruptcy proceeding.

12. INDEMNIFICATION

12.1 Indemnification by Arena. Arena hereby agrees to save, defend and hold J&J and its Affiliates and their respective directors, officers, employees and agents (each, a ***"J&J Indemnitee"***) harmless from and against any and all claims, suits, actions, demands, liabilities, damages, expenses and/or loss, including reasonable legal expense and attorneys' fees (collectively, ***"Losses"***), to which any J&J Indemnitee may become subject to the extent such Losses result from any claim, demand, action or other proceeding against the J&J Indemnitee by any Third Party to the extent based upon: (i) the practice by Arena of any license granted by J&J under this Agreement, (ii) the manufacture, use, handling, storage, sale or other disposition of any Collaboration Product by Arena, its Affiliates or sublicensees (other than J&J, its Affiliates and their respective Sublicensees), or (iii) the breach by Arena of any warranty, representation, covenant or agreement made by Arena in this Agreement; except, in each case, to the extent such Losses result from the negligence or willful misconduct of any J&J Indemnitee or the breach by J&J of any warranty, representation, covenant or agreement made by J&J in this Agreement.

12.2 Indemnification by J&J. J&J hereby agrees to save, defend and hold Arena and its Affiliates and their respective directors, officers, employees and agents (each, a ***"Arena Indemnitee"***) harmless from and against any and all Losses to which any Arena Indemnitee may become subject to the extent such Losses result from any claim, demand, action or other proceeding against the Arena Indemnitee by any Third Party to the extent based upon: (i) the practice by J&J (or its Affiliate or Sublicensee) of any license rights granted by Arena under this Agreement, (ii) the manufacture, use, handling, storage, sale or other disposition of any Collaboration Product by J&J, its Affiliates or any of their respective Sublicensees, or (iii) the breach by J&J of any warranty, representation, covenant or agreement made by J&J in this Agreement; except, in each case, to the extent such Losses result from the negligence or willful misconduct of any Arena Indemnitee or the breach by Arena of any warranty, representation, covenant or agreement made by Arena in this Agreement.

12.3 Control of Defense. Any entity entitled to indemnification under this Article 12 will give notice to the indemnifying Party of any Losses that may be subject to indemnification, promptly after learning of such Losses, and the indemnifying Party will assume the defense of such Losses with counsel reasonably satisfactory to the indemnified Party. If such defense is assumed by the indemnifying Party with counsel so selected, the indemnifying Party will not be

subject to any liability for any settlement of such Losses made by the indemnified Party without its consent (but such consent will not be unreasonably withheld or delayed), and will not be obligated to pay the fees and expenses of any separate counsel retained by the indemnified Party with respect to such Losses.

12.4 Insurance. J&J, at its own expense, will maintain product liability insurance (or self-insure) in an amount consistent with industry standards during the Term of this Agreement and will name Arena as an additional insured with respect to such insurance. J&J will provide a certificate of insurance (or evidence of self-insurance) evidencing such coverage to Arena upon request. Arena agrees during the term of the Agreement and for a period of at least three (3) years thereafter to maintain (a) workers' compensation insurance for all of its employees, the limits of which shall be as required under statute; and (b) commercial general liability insurance on a claims made basis having limits of not less than $5,000,000 in the aggregate and $1,000,000 per occurrence.

13. DISPUTE RESOLUTION

13.1 Discussion by Senior Executives. If there is a matter for which the JSC is unable to reach a decision (except for those matters for which this Agreement provides that J&J will have the final decision authority), or if any other dispute or issue (including any claim or controversy arising from or related in any way to this Agreement or the interpretation, application, breach, termination or validity thereof, including any claim of inducement of this Agreement by fraud or otherwise) arises between the Parties under this Agreement, such matter, dispute or issue will be referred to the Chief Executive Officer of Arena and the Company Group Chairman of J&J (or the senior officer of one of the applicable pharma-group Affiliate that is involved in the specific dispute or issue based on ongoing involvement in the operations under the Agreement), for further discussion and resolution. These individuals will as soon as practicable meet and attempt in good faith to resolve the matter, dispute or issue and reach agreement. These individuals may obtain the advice of other employees or consultants as they deem necessary or advisable in order to make the decision. If these individuals cannot reach agreement as to the matter, dispute or issue within 30 days of the matter, dispute or issue being referred to them by either Party in writing, then the matter, dispute or issue (an "***Unresolved Issue***") will be resolved as provided in Section 13.2 or 13.3, as applicable.

13.2 Arbitration.

(a) Any Unresolved Issue may be submitted by either Party for resolution to arbitration pursuant to the rules then pertaining of the CPR Institute for Dispute Resolution for Non-Administered Arbitration (available at www.cpradr.org/arb-rules.htm), or successor ("CPR"), except where those rules conflict with these provisions, in which case these provisions control. The arbitration will be held in New York County, New York. In the case that no such rules exist, the Parties will in that case agree in good faith on alternate arbitration rules to govern any arbitration conducted under this Section 13.2.

(b) The panel will consist of three arbitrators chosen from the CPR Panels of Distinguished Neutrals (or, by agreement, from another provider of arbitrators) each of whom is a lawyer with at least 15 years experience with a law firm or corporate law department of over 25

lawyers or who was a judge of a court of general jurisdiction. If the aggregate damages sought by the claimant are stated to be less than $5 million, and the aggregate damages sought by the counterclaimant are stated to be less than $5 million, and neither side seeks equitable relief, then a single arbitrator will be chosen, having the same qualifications and experience specified above. Each arbitrator will be neutral, independent, disinterested, and impartial and will abide by The CPR-Georgetown Commission Proposed Model Rule for the Lawyer as Neutral available at www.cpradr.org/cpr-george.html.

(c) The parties agree to cooperate (1) to attempt to select the arbitrator(s) by agreement within 45 days of initiation of the arbitration, including jointly interviewing the final candidates, (2) to meet with the arbitrator(s) within 45 days of selection and (3) to agree at that meeting or before upon procedures for discovery and as to the conduct of the hearing which will result in the hearing being concluded within no more than nine (9) months after selection of the arbitrator(s) and in the award being rendered within 60 days of the conclusion of the hearings, or of any post hearing briefing, which briefing will be completed by both sides within 45 days after the conclusion of the hearings.

(d) In the event the Parties cannot agree upon selection of the arbitrator(s), the CPR will select arbitrator(s) as follows: CPR will provide the parties with a list of no less than 25 proposed arbitrators (15 if a single arbitrator is to be selected) having the credentials referenced above. Within 25 days of receiving such list, the parties will rank at least 65% of the proposed arbitrators on the initial CPR list, after exercising cause challenges. The Parties may then interview the five candidates (three if a single arbitrator is to be selected) with the highest combined rankings, such interviews to be either in person or, if in-person interviews are impractical, by telephone, in each case, for no more than one hour each and, following the interviews, may exercise one peremptory challenge each. The panel will consist of the remaining three candidates (or one, if one arbitrator is to be selected) with the highest combined rankings. In the event these procedures fail to result in selection of the required number of arbitrators, CPR will select the appropriate number of arbitrators from among the members of the various CPR Panels of Distinguished Neutrals, allowing each side challenges for cause and three peremptory challenges each.

(e) In the event the parties cannot agree upon procedures for discovery and conduct of the hearing meeting the schedule set forth in paragraph c above, then the arbitrator(s) will set dates for the hearing, any post hearing briefing, and the issuance of the award in accord with the schedule in subclause (c) above. The arbitrator(s) will provide for discovery according to those time limits, giving recognition to the understanding of the parties that they contemplate reasonable discovery, including document demands and depositions, but that such discovery be limited so that the schedule may be met. Multiple hearing days will be scheduled consecutively to the greatest extent possible.

(f) The arbitrator(s) must render their award by application of the substantive law of New York and are not free to apply "amiable compositeur" or "natural justice and equity." The arbitrator(s) will render a written opinion setting forth findings of fact and conclusions of law with the reasons therefor stated. A transcript of the evidence adduced at the hearing will be made and will, upon request, be made available to either Party. The arbitrator(s) will have power to exclude evidence on grounds of hearsay, prejudice beyond its probative

value, redundancy, or irrelevance and no award will be overturned by reason of such ruling on evidence. To the extent possible, the arbitration hearings and award will be maintained in confidence.

(g) The Parties consent to the jurisdiction of the Federal District Court for the district in which the arbitration is held for the enforcement of these provisions and the entry of judgment on any award rendered hereunder. Should such court for any reason lack jurisdiction, any court with jurisdiction will act in the same fashion.

(h) In the event the panel's award exceeds $10 million in monetary damages or includes or consists of equitable relief, or rejects a claim in excess of that amount or for that relief, then the losing party may obtain review of the arbitrators' award or decision by panel of three appealate arbitrators (the "Appeal Arbitrators") selected from the CPR Panels of Distinguished Neutrals by agreement or, failing agreement within seven working days, pursuant to the selection procedures specified in paragraph d above. If CPR cannot provide such services, the parties will together select another provider of arbitration services that can. No Appeal Arbitrators will be selected unless they can commit to rendering a decision within forty five days following oral argument as provided in paragraph i. Any such review must be initiated within thirty (30) days following the rendering of the award referenced in f above.

(i) The Appeal Arbitrators will make the same review of the arbitration panel's ruling and its bases that the U.S. Court of Appeals of the Circuit where the arbitration hearings are held would make of findings of fact and conclusions of law rendered by a district court after a bench trial and then modify, vacate or affirm the arbitration panel's award or decision accordingly, or remand to the panel for further proceedings. The Appeal Arbitrators will consider only the arbitration panel's findings of fact and conclusions of law, pertinent portions of the hearing transcript and evidentiary record as submitted by the parties, opening and reply briefs of the party pursuing the review, and the answering brief of the opposing party, plus a total of no more than four (4) hours of oral argument evenly divided between the parties. The party seeking review must submit its opening brief and any reply brief within seventy five (75) and one hundred thirty (130) days, respectively, following the date of the award under review, whereas the opposing party must submit its responsive brief within one hundred ten (110) days of that date. Oral argument will take place within five (5) months after the date of the award under review, and the Appeal Arbitrators will render a decision within forty five (45) days following oral argument. That decision will be final and not subject to further review, except pursuant to the Federal Arbitration Act. The Party that seeks review under paragraph h and i of the award or decision of the arbitration panel must pay all of the costs of the Appeal Arbitrators and the relevant proceeding, but excluding the other Party's costs and expenses in such proceeding.

(j) EACH PARTY HERETO WAIVES ITS RIGHT TO TRIAL OF ANY ISSUE BY JURY.

(k) Each Party has the right before or, if the arbitrator(s) cannot hear the matter within an acceptable period, during the arbitration to seek and obtain from the appropriate court provisional remedies such as attachment, preliminary injunction, replevin, etc. to avoid irreparable harm, maintain the status quo, or preserve the subject matter of the arbitration.

13.3 Notwithstanding anything to the contrary, either Party may at any time seek to obtain preliminary injunctive relief in equity from a court of competent jurisdiction with respect to an issue arising under this Agreement if the rights of such Party would be prejudiced absent such relief.

13.4 Diligence Disputes; Remedies. For any Unresolved Dispute that involves a claim by Arena that J&J has breached its diligence obligations, under Section 3.7 or 4.2, the arbitrators of such Unresolved Dispute will, under the arbitration conducted under Section 13.2, determine if J&J breached such diligence obligations. If J&J is determined to have breached its diligence obligation, then Arena will have the right to terminate this Agreement.

14. GENERAL PROVISIONS

14.1 Governing Law. This Agreement will be governed by, and construed and enforced in accordance with, the laws of the State of New York, without giving effect to any conflicts of laws principles.

14.2 Entire Agreement; Modification. This Agreement is both a final expression of the Parties' agreement and a complete and exclusive statement with respect to all of its terms. This Agreement supersedes all prior and contemporaneous agreements and communications between the Parties, whether oral, written or otherwise, concerning the subject matter contained herein, excluding the letter agreement between the Parties dated the Effective Date approving the initial Research Plan. No rights or licenses with respect to any intellectual property of either Party are granted or deemed granted hereunder or in connection herewith, other than those rights expressly granted in this Agreement. This Agreement may only be modified or supplemented in a writing expressly stated for such purpose and signed by the Parties to this Agreement.

14.3 Relationship of the Parties. The Parties' relationship, as established by this Agreement, is solely that of independent contractors. This Agreement does not create any partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever.

14.4 Performance by Affiliates and Sublicensees. The Parties recognize that each may perform some or all of its obligations under this Agreement through Affiliates or Sublicensees, *provided, however,* that each Party will remain responsible and be guarantor of the performance by its Affiliates and will cause its Affiliates and Sublicensees to comply with the provisions of this Agreement in connection with such performance. In particular, if any Affiliate of a Party or a Sublicensee participates in research under this Agreement or with respect to Products, (a) the restrictions of this Agreement which apply to the activities of a Party with respect to Products will apply equally to the activities of such Affiliate and Sublicensee, and (b) the Party affiliated with such Affiliate or Sublicensee will assure, and hereby guarantees, that any intellectual property developed by such Affiliate or Sublicensee will be governed by the provisions of this Agreement (and subject to the licenses set forth in Article 5) as if such intellectual property had been developed by the Party. Any action or omission by a Party's Affiliate or a Sublicensee which would, if such action or omission were conducted by the Party,

constitute a breach of the Party's obligations under this Agreement will constitute a breach of such obligation by the Party (unless such obligation were otherwise satisfied by such Party or another of its Affiliates or Sublicensees).

14.5 Non-Waiver. The failure of a Party to insist upon strict performance of any provision of this Agreement or to exercise any right arising out of this Agreement will neither impair that provision or right nor constitute a waiver of that provision or right, in whole or in part, in that instance or in any other instance. Any waiver by a Party of a particular provision or right will be in writing, will be as to a particular matter and, if applicable, for a particular period of time and will be signed by such Party.

14.6 Assignment. Except as expressly provided hereunder, neither this Agreement nor any rights or obligations hereunder may be assigned or otherwise transferred by either Party without the prior written consent of the other Party (which consent will not be unreasonably withheld); *provided, however*, that either Party may assign this Agreement and its rights and obligations hereunder without the other Party's consent:

(a) To its successor in interest in connection with the transfer or sale of all or substantially all of the business of such Party to which this Agreement relates, whether by merger, sale of stock, sale of assets or otherwise, provided that in the event of a transaction (whether this Agreement is actually assigned or is assumed by the acquiring Party by operation of law (*e.g.*, in the context of a reverse triangular merger)), intellectual property rights of the acquiring party to such transaction (if other than one of the Parties to this Agreement) will not be included in the technology licensed hereunder; or

(b) To an Affiliate, provided that the assigning Party will remain liable and responsible to the non-assigning Party hereto for the performance and observance of all such duties and obligations by such Affiliate.

The rights and obligations of the Parties under this Agreement will be binding upon and inure to the benefit of the successors and permitted assigns of the Parties. Any assignment not in accordance with this Agreement will be void.

14.7 No Third Party Beneficiaries. This Agreement is neither expressly nor impliedly made for the benefit of any Party other than those executing it.

14.8 Severability. If, for any reason, any part of this Agreement is adjudicated invalid, unenforceable or illegal by a court of competent jurisdiction, all other portions will remain in full force and effect, and the Parties will use their best efforts to substitute for the invalid, unenforceable or illegal provision a valid, enforceable and legal provision which conforms as nearly as possible with the original intent of the Parties.

14.9 Notices. Any notice to be given under this Agreement must be in writing and delivered either in person, by registered or certified mail (postage prepaid) requiring return receipt, or by overnight courier or facsimile confirmed thereafter by any of the foregoing, to the Party to be notified at its address(es) given below, or at any address such Party has previously designated by prior written notice to the other. Notice will be deemed sufficiently given for all purposes upon the earliest of: (a) the date of actual receipt; (b) if mailed, three days after the

date of postmark; or (c) if delivered by overnight courier, the next business day the overnight courier regularly makes deliveries.

If to J&J, notices must be addressed to:

Ortho-McNeil Pharmaceutical, Inc.
1000 U.S. Route 202
Raritan, New Jersey 08869
Attention: Company Group Chairman, North American Pharmaceuticals
Telephone: 732-524-2904
Facsimile: 732-524-5262

With a required copy to:

Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, NJ 08933
Attention: General Counsel
Telephone: 732-524-2448
Facsimile: 732-524-2788

If to Arena, notices must be addressed to:

6166 Nancy Ridge Drive
San Diego, CA
92121
Attention: Chief Executive Officer
Telephone: 858-453-7200, ext 223
Facsimile: 858-677-0065

with a copy to:

6166 Nancy Ridge Drive
San Diego, CA
92121
Attention: General Counsel
Telephone: 858-453-7200, ext 229
Facsimile: 858-677-0065

14.10 Force Majeure. Except for the obligation to make payment when due, each Party will be excused from liability for the failure or delay in performance of any obligation under this Agreement by reason of any event beyond such Party's reasonable control including but not limited to Acts of God, fire, flood, explosion, earthquake, or other natural forces, war, civil unrest, accident, destruction or other casualty, any lack or failure of transportation facilities, any lack or failure of supply of raw materials, any strike or labor disturbance, or any other event similar to those enumerated above. Such excuse from liability will be effective only to the extent and duration of the event(s) causing the failure or delay in performance and provided that the

Party has not caused such event(s) to occur and continues to use diligent, good faith efforts to avoid the effects of such event and to perform the obligation. Notice of a Party's failure or delay in performance due to force majeure must be given to the other Party within 10 days after its occurrence. All delivery dates under this Agreement that have been affected by force majeure will be tolled for the duration of such force majeure. In no event will any Party be required to prevent or settle any labor disturbance or dispute. Notwithstanding the foregoing, should the event(s) of force majeure suffered by a Party extend beyond a nine-month period, the other Party may then terminate this Agreement by written notice to the non-performing Party, with the consequences of such termination as set forth in Section 11.6.

14.11 Interpretation.

(a) Captions & Headings. The captions and headings of clauses contained in this Agreement preceding the text of the articles, sections, subsections and paragraphs hereof are inserted solely for convenience and ease of reference only and will not constitute any part of this Agreement, or have any effect on its interpretation or construction.

(b) Singular & Plural. All references in this Agreement to the singular will include the plural where applicable, and all references to gender will include both genders and the neuter.

(c) Including as Example. Use of the term "including" in this Agreement will be interpreted to mean "including, without limitation," and will be exemplary rather than restrictive.

(d) Articles, Sections & Subsections. Unless otherwise specified, references in this Agreement to any article will include all sections, subsections, and paragraphs in such article; references in this Agreement to any section will include all subsections and paragraphs in such sections; and references in this Agreement to any subsection will include all paragraphs in such subsection.

(e) Days. All references to days in this Agreement means calendar days, unless otherwise specified.

(f) Ambiguities. Ambiguities and uncertainties in this Agreement, if any, will not be interpreted against either Party, irrespective of which Party may be deemed to have caused the ambiguity or uncertainty to exist.

(g) English Language. All notices required or permitted to be given hereunder, and all written, electronic, oral or other communications between the Parties regarding this Agreement will be in the English language.

14.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original document, and all of which, together with this writing, will be deemed one instrument.

[Remainder of this page intentionally left blank.]

IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the Effective Date.

ARENA PHARMACEUTICALS, INC.	**ORTHO-MCNEIL PHARMACEUTICAL, INC.**
By: /s/ Jack Lief	By: /s/ Joseph C. Bondi
Name: Jack Lief	Name: Joseph C. Bondi
Title: President & CEO	Title: V.P. Finance

or importation of a Development Compound in a Collaboration Product, and J&J is obligated to make a payment under a settlement agreement or court order to such Third Party, then any amount paid by J&J to such Third Party will be treated as a royalty payment made to such Third Party under Section 6.6(b), for which J&J would be entitled to credit up to 50% of the payment against royalties owed Arena, subject to the other terms of Section 6.6.

8.6 Cooperation by J&J and Arena in Patent and Regulatory Filings. The Parties shall cooperate in order to avoid loss of any rights that may otherwise be available to the Parties under the U.S. Drug Price Competition and Patent Term Restoration Act of 1984, the Supplementary Certificate of Protection of the Member States of the European Union and other similar measures in any other country. Without limiting the foregoing, J&J shall notify Arena upon receipt of Regulatory Approval to market a Collaboration Compound or Collaboration Product in the United States, and timely supply Arena with all information necessary to file an application for patent term extension for a relevant Arena Patent, within the sixty (60) calendar day period following Regulatory Approval. Arena agrees to timely file any such application, unless it reasonably objects to seeking such extension for such Patent (in which case the dispute shall be resolved pursuant to Article 13). The obligations set forth in this Section shall apply with respect to patent term extensions, or the equivalent, in any other country. Any application for patent term extension in the United States shall be made by the Party who Controls the relevant patent.

9. REPRESENTATIONS, WARRANTIES, AND COVENANTS

9.1 Mutual Representations and Warranties. Each Party represents and warrants to the other that: (a) it is duly organized and validly existing under the laws of its jurisdiction of incorporation or formation, and has full corporate or other power and authority to enter into this Agreement and to carry out the provisions hereof; (b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the person or persons executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate or partnership action; and (c) this Agreement is legally binding upon it, enforceable in accordance with its terms, and does not conflict with any agreement, instrument or understanding, oral or written, to which it is a Party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

9.2 Arena IP Warranties. Arena represents and warrants to J&J as of the Effective Date that:

(a) To Arena's knowledge after reasonable investigation, Exhibit C is accurate and complete and identifies all Patents rights owned by or licensed to Arena as of the Effective Date that specifically claim the manufacture, use or sale of 19AJ (including assays and the use of assays for testing for activity against 19AJ, including recombinant and recombinantly modified forms of 19AJ) or of Active Compounds identified by Arena as of the Effective Date;

(b) it has disclosed to J&J all Third Party Patents of which Arena has knowledge as of the Effective Date that Arena believes are relevant to Arena's and/or J&J's freedom-to-operate with respect to the use of the Arena Technology as contemplated under this Agreement and/or the discovery, development or commercialization of Active Compounds; and

(c) it has not granted any right, license or interest in or to the Arena Technology that is in conflict with the rights and licenses granted to J&J under this Agreement.

9.3 Disclaimer. Except as expressly set forth herein, THE TECHNOLOGY AND INTELLECTUAL PROPERTY RIGHTS PROVIDED BY EACH PARTY HEREUNDER ARE PROVIDED "AS IS" AND EACH PARTY EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF DESIGN, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES, OR ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICES, IN ALL CASES WITH RESPECT THERETO. Without limiting the generality of the foregoing, each Party expressly does not warrant, and disclaims any warranties with regards to: (a) the success of any study or test commenced under the Research Program, (b) the safety or usefulness for any purpose of the technology or materials, including any Active Compounds, it provides or discovers under this Agreement; and/or (c) the validity, enforceability, or non-infringement of any intellectual property rights or technology it provides or licenses to the other Party under this Agreement.

9.4 Limitation of Liability. EXCEPT FOR LIABILITY FOR BREACH OF ARTICLE 10, NEITHER PARTY WILL BE ENTITLED TO RECOVER FROM THE OTHER PARTY ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT OR ANY LICENSE GRANTED HEREUNDER; *provided, however,* that this Section 9.4 will not be construed to limit either Party's indemnification obligations under Article 12.

9.5 Covenants of the Parties

(a) Throughout the term of this Agreement, Arena and J&J will comply (and will cause their Affiliates and Sublicensees to comply) in all material respects with all applicable laws and regulations concerning the manufacture, use and sale of the Selected Compounds and the Collaboration Products.

(b) Each of the Parties will, at the reasonable request of the other Party, use reasonable efforts to execute and deliver any further or additional instruments or documents, and to perform any other acts, as are necessary in order to effectuate and carry out the terms of this Agreement, but *provided that* the foregoing shall not be interpreted to require such Party to incur any additional expenses or grant any other rights to the other Party, other than rights expressly granted elsewhere in the Agreement.

10. CONFIDENTIALITY

10.1 Confidential Information. Except to the extent expressly authorized by this Agreement or otherwise provided herein or agreed in writing by the Parties, each Party agrees that, during the Term and for five years thereafter, the receiving Party and its Affiliates and sublicensees will keep confidential and will not publish or otherwise disclose and will not use for any purpose other than as expressly permitted in this Agreement any Information furnished to it or its Affiliates by the other Party pursuant to this Agreement (collectively, ***"Confidential Information"*** of the disclosing Party). Each Party may use such Confidential Information of the other Party only to the extent required to accomplish the purposes of this Agreement or exercise its rights under the licenses granted to it under this Agreement. Each Party will use at least the same standard of care as it uses to protect proprietary or confidential information of its own, but in no event less than reasonable care, to ensure that its and its Affiliates' and sublicensees' employees, agents, consultants and other representatives do not disclose or make any unauthorized use of the Confidential Information. Each Party will promptly notify the other upon discovery of any unauthorized use or disclosure of the Confidential Information. The Parties further acknowledge that each Party has disclosed to the other Party (or its Affiliates), prior to the Effective Date, certain confidential Information pursuant to non-disclosure and/or material transfer agreements entered into between the Parties (or a Party's Affiliates), that limit the disclosure and use of such Information by the receiving Party. The Parties hereby agree that any such confidential Information earlier disclosed by one Party to the other (or its Affiliates) under such earlier agreements will be deemed to be the Confidential Information of the disclosing Party and subject to all the terms of this Article 10, as well as the additional terms covering such Information (if any) under the earlier agreements.

10.2 Exceptions. The obligations of non-disclosure and non-use under Section 10.1 will not apply as to particular Confidential Information of a disclosing Party to the extent that the receiving Party can prove by competent written evidence that such Confidential Information: (a) is at the time of receipt, or thereafter becomes, through no act or failure to act on the part of the receiving Party, generally known or available; (b) is known by the receiving Party at the time of receiving such Information, as evidenced by its records; (c) is hereafter furnished to the receiving Party by a Third Party, as a matter of right and without restriction on disclosure; (d) is independently discovered or developed by the receiving Party without reference to Confidential Information belonging to the disclosing Party; or (e) is the subject of a written permission to disclose provided by the disclosing Party.

10.3 Authorized Disclosure. Each Party may disclose Confidential Information belonging to the other Party to the extent such disclosure is reasonably necessary in the following instances:

(a) filing or prosecuting Patents as permitted by this Agreement;

(b) regulatory filings for Collaboration Products such Party has a license or right to develop hereunder;

(c) prosecuting or defending litigation as permitted by this Agreement;

(d) complying with applicable court orders or governmental regulations;

(e) disclosure to Affiliates, sublicensees, employees, consultants, or agents on a need to know basis and only for purposes of performance of such Party's obligations under this Agrement, and provided, in each case, that any such Affiliate, Sublicensee, employee, consultant or agent agrees to be bound by similar terms of written confidentiality and non-use at least equivalent in scope to those set forth in this Article 10; or

(f) disclosure to existing or potential Third Party investors, merger partners, acquirors, and professional advisors (including lawyers, accountants, and investment bankers) in the context of a potential transaction, provided, that any such Third Party agrees to be bound by similar terms of confidentiality and non-use at least equivalent in scope to those set forth in this Article 10.

Notwithstanding the foregoing, (1) in the event a Party is required to make a disclosure of the other Party's Confidential Information pursuant to Section 10.3(b), (c) or (d), it will, except where impracticable, give reasonable advance notice to the other Party of such disclosure and use reasonable efforts to secure, or to assist the other Party in securing, confidential treatment of and/or a protective order regarding such Information, and (2) any disclosure by Arena under 10.3(e) to sublicensees, consultants or agents may only be made following consultation with and permission from J&J (such permission not to be unreasonably withheld) as to the form and content of such disclosure. The Parties will consult with each other on the provisions of this Agreement to be redacted in any filings made by the Parties with the Securities and Exchange Commission or as otherwise required by law.

10.4 Publications.

(a) If either Party seeks to publish any Information relating to the results of work conducted under this Agreement, which utilizes data generated from the Research Program and/or includes Confidential Information of the other Party or relates in any way to an Active Compound (prior to the first anniversary of the end of the Research Term), or to a Selected Compound or Collaboration Product (after the first anniversary of the end of the Research Term), that Party will provide the other Party the material proposed for disclosure or publication, such as by oral presentation, manuscript or abstract, and the other Party will have the right to review and comment on all such material. The Parties will reasonably agree on the content of any such publication, *except that* J&J shall be free to publish the results of and/or Information concerning development of a Development Compound in Phase IIb Trials or later stage trials subject to subclause (b) below.

(b) If J&J seeks to publish any Information relating to the results of work conducted under this Agreement concerning development of a Development Compound in Phase IIb Trials or later stage trials or commercialization of a Collaboration Product, which Information or publication includes Confidential Information of Arena, J&J will deliver a complete copy to Arena at least 45 days prior to submitting the material to a publisher or initiating any other disclosure. Arena will review any such material and give its comments to J&J as soon as practicable and will give written notice whether it authorizes the disclosure of its Confidential Information or requests deletion of Arena Confidential Information and/or other

comments regarding the disclosure. J&J will comply with any request of Arena to delete references to Arena's Confidential Information and will reasonably consider any other comments.

(c) J&J agrees, at Arena's request, to delay any submission for publication or other public disclosure regarding results of work conducted under this Agreement, which utilizes data generated from the Research Program or relates in any way to an Active Compound, a Collaboration Compound or a Collaboration Product, and other information regarding the Research Program, including oral presentations and abstracts, for a period of up to an additional 90 days for the purpose of preparing and filing appropriate patent applications.

10.5 Publicity. Arena may issue a press release announcing the execution of this Agreement, the text of which will be mutually agreed upon in advance by the Parties promptly after the Effective Date and acting reasonably. In the event that either Party desires to issue subsequent press releases relating to this Agreement or activities under this Agreement that disclose Information materially different from the Information in the text set forth in such initial press release, or in any subsequent authorized press release, such Party agrees to obtain the other Party's written permission with respect to the text and timing of such press releases prior to the issuance thereof, provided that such other Party may not unreasonably withhold consent to such releases, and that each Party may make any governmental filings and public disclosures as it determines, based on advice of counsel, are reasonably necessary to comply with laws or regulations or for appropriate market disclosure. In addition, following the initial (or any subsequent) press release announcing this Agreement or any activity under the Agreement, each Party will be free to disclose, without the other Party's prior written consent, the existence of this Agreement and the identity of J&J and those terms of this Agreement or activities which have already been publicly disclosed in accordance herewith. Arena will have the right to make disclosures as necessary to comply with law and regulations, and will also be able to disclose specific sections or provisions of this Agreement to prospective merger partners or acquirers to the extent such disclosure is needed in connection with the proposed transaction, and such party agrees to keep the disclosed information in confidence. Arena will also be able to disclose specific sections or provisions of this Agreement relating to the ownership and control of intellectual property rights to prospective licensee to the extent such disclosure is needed in connection with the proposed transaction, and such party agrees to keep the disclosed information in confidence.

10.6 Residual Information. Notwithstanding the foregoing restrictions, but subject to the other limitations set forth in this Section 10.6, an employee of receiving Party shall not be prevented from using unintentionally the residuals (as defined below) remaining in such person's memory from access to or work with the Confidential Information of the disclosing Party. The term "residuals" means Information in intangible form that is incidentally and unintentionally retained in the memory of a persons who have had access to the Information, and where the source of the Information has become remote (e.g., as a result of the passage of time or the person's subsequent exposure to Information of a similar nature from other sources) such that the person can no longer identify the Information's confidential source at the relevant time; provided, however, that no license to any patent or copyright of the disclosing Party is or shall be deemed granted under this Section. The term "residuals" shall not cover any Information that is known to be in tangible form, or which a reasonable person should be able to identify as the

proprietary information of the disclosing Party, such as specific assays, protocols, methods of identifying Active Compounds, or the structure or composition of compounds.

11. TERM AND TERMINATION

11.1 Term of Agreement. The term of this Agreement (the ***"Term"***) will commence on the Effective Date and continue until expiration of this Agreement upon the expiration or termination of all payment obligations of J&J under this Agreement, or upon earlier termination of this Agreement pursuant to Section 11.2, 11.3, 11.4, 11.5, 13.4 or 14.10.

11.2 Termination for Cause. Each Party will have the right to terminate this Agreement upon 60 days' prior written notice to the other Party upon the breach by such other Party of any material provision of this Agreement *provided that* such notice has given detail of the basis for the breach and the breaching Party has not cured such breach within the 60-day period following such written notice. The right of a Party to terminate this Agreement under this Section, and the notice period for such termination, will be tolled during the period of any arbitration or judicial proceeding that is invoked to resolve the issue of whether the alleged breaching Party has in fact committed a material breach of this Agreement, or whether such Party has cured such breach.

11.3 Termination by J&J Without Cause During The Research Term. At any time during the Research Term, J&J may terminate this Agreement by providing Arena at least 60 days prior written notice, provided, however, that if J&J terminates before making all payments that would be owed to Arena under Section 6.2 prior to the end of the original Research Term (*i.e.*, absent such early termination), it agrees to pay Arena within 20 Business Days of such termination an amount equal to the total of all such remaining research funding under Section 6.2 that would have been due Arena assuming J&J had not terminated the Agreement prior to the end of the Research Term.

11.4 Termination by J&J Without Cause After The End of the Research Term. At any time after the end of the Research Term, J&J may terminate this Agreement by providing Arena at least 60 days prior written notice.

11.5 Termination by J&J As A Result Of Arena Change of Control. If an Arena Change of Control occurs during the Research Term, J&J may terminate the Agreement, or in the alternative may terminate early the Research Program, on sixty days prior written notice, and in such event J&J shall not have any obligation to pay Arena any remaining research funding that would have been due, after the effective date of such termination, if it had not terminated prior to the end of the Research Term. If J&J terminates the Research Program early, but not the entire Agreement, under this Section, then the Parties will use diligent efforts to wind down the Research efforts of Arena by the effective date of such termination, and the Agreement shall continue in all other aspects with the Research Term being deemed ended as of the effective date of such termination. For the purposes of this Section 11.5:

"Arena Change of Control" means any transaction or series of related transactions in which a Major Health Care Company acquires or becomes the beneficial owner of (i) more than fifty-one percent (51%) of the outstanding voting securities of Arena or the surviving entity,

whether by merger, consolidation, reorganization, tender offer or similar means, or (ii) all or substantially all of the assets of Arena.

"Major Health Care Company" shall mean a Third Party pharmaceutical or biotechnology company (including a "group" within the meaning of Section 13(d)(3) of the Securities Exchange Act of 1934 but excluding J&J and any affiliates of J&J) whose worldwide net sales of human pharmaceutical products, including consumer over-the-counter pharmaceutical products, in the most recently completed fiscal year for which audited financial statements are publicly available at the time such Change of Control occurs, causes such company (or group) to rank within the top fifteen (15) companies as reported in such financial statements, or if such information is not publicly available, as appropriately provided by Arena.

11.6 Effect of Termination; Surviving Obligations.

(a) Upon termination of this Agreement, except as otherwise provided in subsection (b) below:

(i) all rights under the licenses granted by either Party to the other under this Agreement, if then in effect, will automatically terminate and revert to the granting Party; and

(ii) the other rights and obligations of each Party will terminate, except as otherwise provided in Section (c) below.

(b) Upon termination of this Agreement by Arena pursuant to Section 13.4 (for breach of diligence) or 14.10 or under Section 11.2, or by J&J under Section 11.2, 11.3, 11.4, 11.5 or 14.10:

(i) all rights under the licenses granted by either Party to the other under Article 5, if then in effect, will automatically terminate and revert to the granting Party, except as otherwise provided in this Section 11.6(b) below, and any and all Selected Compounds terminate and revert to being solely Active Compounds;

(ii) the other rights and obligations of each Party will terminate, except as otherwise provided in Section (c) below;

(iii) J&J is automatically deemed to grant to Arena the worldwide, exclusive (even as to J&J), irrevocable, perpetual, fully –paid-up license with the right to sublicense to its and its Affiliates' entire right and interest in all Collaboration Inventions to the extent that they relate to Active Compounds, or 19AJ and modulators of 19AJ, and Joint Patents to the extent that they relate to Active Compounds (including their development, manufacture or use), or 19AJ and modulators of 19AJ, including research results, clinical trial data, and regulatory information solely to allow Arena, its assigns, Affiliates or sublicensees, to make, have made, use, sell, have sold, offer for sale and import products containing Active Compounds (including all Collaboration Products) in the Field;

(iv) J&J will promptly deliver and assign to Arena all of its right, title and interest in and to all regulatory filings and applications and Regulatory Approvals relating to

Collaboration Products, including INDs, NDAs, drug dossiers, DMFs, CMC sections, and master files with respect to Active Compounds and Collaboration Products and all Regulatory Approvals, and take such other actions and execute such other instruments, assignments and documents as may be necessary to effect the transfer of rights hereunder to Arena;

(v) J&J is automatically deemed to grant to Arena the worldwide, exclusive (even as to J&J), irrevocable, perpetual, fully paid license, with the right to sublicense, under the J&J Technology, but excluding the Proprietary Delivery Technology as defined below, to make, have made, use, sell, have sold, offer for sale and import products containing Active Compounds in the Field; as used in this subclause (v), the term "Proprietary Delivery Technology" means Patents or trade secrets that are Controlled by J&J and cover or claim proprietary formulation or delivery technologies, devices or methods (including but not limited to methods of treating or preventing diseases or conditions in mammals) that were developed independent of the Research Program or activities under the Agreement and are broadly applicable to use with pharmaceutical agents other than the Active Compounds;

(vi) if such termination of this Agreement by Arena pursuant to Section 13.4 (for breach of diligence) or 14.10 or under Section 11.2, or by J&J under Section 11.2, 11.3, 11.4, 11.5 or 14.10 occurs after dosing of the first patient in a Phase IIa Clinical Trial, Arena shall have the option to obtain a worldwide, exclusive (even as to J&J), irrevocable, perpetual license, with the right to sublicense, under the Proprietary Delivery Technology, solely to make, have made, use, sell, have sold, offer for sale and import products containing whatever Active Compound or Active Compounds were undergoing or had undergone (as a Selected Compound) such Phase IIa Clinical Trial in the Field, and Arena shall pay to J&J royalties equal to three percent (3%) of the net sales by Arena, its Affiliates or sublicensees of products covered under such Proprietary Delivery Technology as the sole consideration for such license (and where such "net sales" shall be defined in the equivalent manner as "Net Sales" in Article 1 for sales of Collaboration Products by J&J);

(vii) J&J covenants to Arena that J&J and its Affiliates and Sublicensees will not develop, promote, market or sell any compound that has been discovered or identified as an Active Compound, or has otherwise become known to J&J or its Affiliate as an Active Compound, or any product containing such an Active Compound; and

(viii) If J&J intends to abandon or not maintain any J&J Patent or Joint Patent that claims an Active Compound or its manufacture or use or that claims 19AJ or its use in discovering modulators or in a method of treatment, J&J will provide reasonable prior written notice to Arena of such intention to abandon (which notice will, in any event, be given no later than 60 days prior to the next deadline for any action that may be taken with respect to such Joint Patent with the U.S. Patent & Trademark Office or any foreign patent office) and Arena may then assume the J&J Patent Prosecution with respect to such J&J Patent or Joint Patent.

(c) Expiration or termination of this Agreement will not relieve the Parties of any obligation accruing prior to such expiration or termination. The obligations and rights of the

EXHIBIT A

19AJ AND LEAD MOLECULES

19AJ polynucleotide and polypeptide, as used herein, shall refer to GPR119 polynucleotide and polypeptide as disclosed in NCBI Accession No. AY288416, version AY288416.1. *

AR244061 *

Chemical name: 4-[1-(2-Fluoro-4-methanesulfonyl-phenyl)-1H-pyrazolo[3,4-d]pyrimidin-4-yloxy]-piperidine-1-carboxylic acid isopropyl ester *

AR246881 *

Chemical Name: 4-[6-(2-Fluoro-4-methanesulfonyl-phenoxy)-5-methyl-pyrimidin-4-yloxy]-piperidine-1-carboxylic acid isopropyl ester *

* *CONFIDENTIAL TREATMENT REQUESTED*

EXHIBIT B

ASSAY PROTOCOLS

Hit cell in vitro insulin release: For in vitro insulin release, HIT-T15 insulinoma cells are maintained in F-12K medium supplemented with 10% dialyzed horse serum, 2.5% fetal bovine serum, and antibiotics; and plated in 24-well plates at $2.5X10^5$ cells/well for insulin release assays. One day prior to the assay, culture media is changed to DMEM (3 mM glucose) with 10% dialyzed horse serum and 2.5% fetal bovine serum. On next day, cells are washed twice with PBS, and incubated for 1 hr with the desired dose of test compounds in DMEM in the presence of 15 mM glucose. In order to test for agonist and inverse agonist responses the compounds are added alone to the cells. In order to test for antagonists the test compound is added in the presence of a stimulating concentration of agonist. Supernatants are collected and clarified via centrifugation and insulin levels are determined through Linco Laboratory (St. Charles, MO) using a radioimmuno assay method, or in house with an Ultra Sensitive Insulin ELISA kit (Crystal Chem Inc., Downers Grove, IL).

cAMP assay in 293 cells: The adenylate cyclase assay is performed with a Flash Plate™ Adenylyl Cyclase kit (New England Nuclear) according to the supplier's protocol. HEK293 cells are plated in 15-cm tissue culture dish at $12 x10^6$ cells per dish in regular growth medium (DMEM/10%FBS). On the next day, 10 µg of either empty vector DNA or expression plasmid DNA are transfected into cells using lipofectamine (Invitrogen, Carlsbad, CA) according to manufacturer's protocol. After 24 hours in culture, transfected cells are harvested in GIBCO cell dissociation buffer (Cat #13151-014), pelleted by centrifugation for 5 minutes at 1,100 rpm, and carefully re-suspended into an appropriate volume of Assay Buffer (50% 1 x PBS and 50% Stimulation Buffer) to give a final cell count of $2x10^6$ cells/ml. Compounds are prepared in 50µl

Assay Buffer at a desired assay concentration, and transferred into the wells of the Flash Plate (96-wells). The cell suspension prepared above is then added (50 µl per well). In order to test for agonist and inverse agonist responses the compounds are added alone to the cells. In order to test for antagonists the test compound is added in the presence of a stimulating concentration of agonist. After an incubation time of 60 minutes at room temperature, 100 µl of Detection Mix containing tracer [^{125}I] -cAMP is then added to the wells. Plates are incubated for additional 2 hours at room temperature followed by counting in a Wallac MicroBeta scintillation counter. Values of cAMP/well are extrapolated from a standard cAMP curve which is included on each assay plate.

EXHIBIT C

ARENA PATENTS

Arena Ref. No.	Country	Serial No.	
34.US1.PRO	US	60/440,394	*
34.US2.PRO	US	60/449,829	*
34.US3.PRO	US	60/453,390	*
34.US4.PRO	US	60/470,875	*
34.WO1	PCT	PCT/US04/001267	*
53.US1.PRO	US	60/449,788	*
53.WO1	PCT	PCT/US04/05555	*
70.US1.PRO	US	60/577,354	*
69.US1.PRO	US	60/486,728	*
69.US2.PRO	US	60/487,370	*
69.US3.REG	US	10/888,747	*
69.AR1.REG	Argentina	P 04 01 02444	*
69.MY.REG	Malaysia	PI 2004 2770	*
69.TW.REG	Taiwan	93120540	*
69.WO1	PCT	PCT/US04/022327	*
71.US1.PRO	US	60/487,443	*
71.US2.PRO	US	60/510,644	*
71.US3.REG	US	10/890,549	*
71.AR1.REG	Argentina	P 04 01 02465	*
71.MY1.REG	Malaysia	PI 2004 2802	*
71.TW1.REG	Taiwan	93120849	*
71.WO1	PCT	PCT/US04/022417	*

* *CONFIDENTIAL TREATMENT REQUESTED*

The following patents and patent applications are included to the extent they are directed to 19AJ * or the use thereof: *

Arena Ref. No.	Country	Serial No.	*
7.US29.CON	US	10/723,955	*
7.AU2.DIV	Australia	2004202476	*
7.AU3.DIV	Australia	2004203102	*
7.CA1.PCT	Canada	2,348,688	*
7.CN1.PCT	China	99812092.8	*
7.EP1.PCT	EPO	99950301.4	*
7.HK1.EPO	Hong Kong	02101604.4	*
7.IL1.PCT	Israel	142153	*
7.JP1.PCT	Japan	2000-576021	*
7.KR1.PCT	S. Korea	10-2001-7004630	*
7.MX1.PCT	Mexico	PA/a/2001/003726	*
7.NZ1.PCT	New Zealand	510712	*
7.NZ2.DIV	New Zealand	535300	*
7.WO1	PCT	PCT/US99/024065	*
11.US9.DIV	US	09/875,076	*
11.US10.CON	US	10/272,983	*
11.US11.CON	US	10/393,807	*
11.US12.CON	US	10/782,596	*
11.AU1.PCT	Australia	37904/00	*
11.AU2.DIV	Australia		
11.CA1.PCT	Canada	2,348,377	*
11.CN1.PCT	China	99812713.2	*
11.EP1.PCT	EPO	99972682.1	*
11.HK1.EPO	Hong Kong	01108607.7	*
11.IL1.PCT	Israel	142538	*
11.JP1.PCT	Japan	2000-584067	*
11.JP2.DIV	Japan	2004-132989	*
11.KR1.PCT	S. Korea	10-2001-706279	*
11.MX1.PCT	Mexico	PA/a/2001/005021	*
11.MX2.DIV	Mexico	PA/a/2004/006415	*
11.NZ1.PCT	New Zealand	511087	*
11.NZ2.DIV	New Zealand	527622	*
11.WO1	PCT	PCT/US99/023687	*

EXHIBIT D

2004 AND 2005 JOHNSON & JOHNSON UNIVERSAL CALENDARS

2004 UNIVERSAL CALENDAR

	M	T	W	T	F	S	S
Q1							
JAN	29	30	31				
(4 Weeks)				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
FEB	26	27	28	29	30	31	
(4 Weeks)							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
MAR	23	24	25	26	27	28	29
(5 Weeks)							
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
Q2							
APR	29	30	31				
(4 Weeks)				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
MAY	26	27	28	29	30		
(4 Weeks)						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23

	M	T	W	T	F	S	S
Q3							
JUL	28	29	30				
(4 Weeks)				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
AUG	26	27	28	29	30	31	
(4 Weeks)							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
SEP	23	24	25	26	27	28	29
(5 Weeks)	30	31					
			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
Q4							
OCT	27	28	29	30			
(4 Weeks)					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
NOV	25	26	27	28	29	30	31
(4 Weeks)							
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21

JUN	24	25	26	27	28	29	30	DEC	22	23	24	25	26	27	28
(5 Weeks)	31							(6 Weeks)	29	30					
		1	2	3	4	5	6				1	2	3	4	5
	7	8	9	10	11	12	13		6	7	8	9	10	11	12
	14	15	16	17	18	19	20		13	14	15	16	17	18	19
	21	22	23	24	25	26	27		20	21	22	23	24	25	26
									27	28	29	30	31		
														1	2

2005 UNIVERSAL CALENDAR

	M	T	W	T	F	S	S
Q1							
JAN	3	4	5	6	7	8	9
(4 Weeks)	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
FEB	31						
(4 Weeks)		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
MAR	28						
(5 Weeks)		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
					1	2	3
Q2							
APR	4	5	6	7	8	9	10
(4 Weeks)	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	
							1
MAY	2	3	4	5	6	7	8
(4 Weeks)	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
JUN	30	31					
(5 Weeks)			1	2	3	4	5

	M	T	W	T	F	S	S
Q3							
JUL	4	5	6	7	8	9	10
(4 Weeks)	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
AUG	1	2	3	4	5	6	7
(4 Weeks)	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
SEP	29	30	31				
(5 Weeks)				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30		
						1	2
Q4							
OCT	3	4	5	6	7	8	9
(4 Weeks)	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
NOV	31						
(4 Weeks)		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
DEC	28	29	30				
(5 Weeks)				1	2	3	4

6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			
				1	2	3

5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
						1