

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is made as of June 29, 2007, by and between SERENEX, INC., a Delaware Corporation ("Grantor"), and VENTURE LENDING & LEASING IV, INC. ("VLL4") and VENTURE LENDING & LEASING V, INC. ("VLL5"), both Maryland corporations (sometimes referred to herein individually or together as "Secured Party").

RECITALS

A. Pursuant to (i) that certain Loan and Security Agreement of even date herewith between Grantor, as borrower, and VLL4, as lender, and (ii) that certain Loan and Security Agreement of even date herewith between Grantor, as borrower, and VLL5, as lender, as such agreements may from time to time be amended, restated, supplemented or otherwise modified (individually and together, the "Loan Agreement"), Secured Party has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in the Loan Agreement. All capitalized terms used herein without definition shall have the meanings ascribed to them in the Loan Agreement.

B. Secured Party is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in substantially all of Grantor's personal property whether presently existing or hereafter acquired. To that end, Grantor has executed in favor of Secured Party the Loan Agreement granting a security interest in all Collateral, and is executing this Agreement with respect to certain items of Intellectual Property, in particular.

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future Obligations, Grantor hereby grants a security interest and mortgage to Secured Party, as security, in and to Grantor's entire right, title and interest in, to and under the following Intellectual Property, now owned or hereafter acquired by Grantor or in which Grantor now holds or hereafter acquires any interest (all of which shall collectively be called the "Collateral" for purposes of this Agreement):

(a) Any and all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country; all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, and State thereof or any other country; all continuations, renewals, or extensions thereof; and any registrations to be issued under any pending applications, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) All letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country; all reissues, continuations, continuations-in-part or extensions thereof; all petty patents, divisionals, and patents of addition; and all patents to be issued under any such applications, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(c) All trademarks, trade names, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, and reissues, extensions or renewals thereof, and the entire goodwill of the business of Grantor connected with and symbolized by

such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (a) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law or (b) any contract, instrument or chattel paper in which Grantor has any right, title or interest if and to the extent such contract, instrument or chattel paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Grantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, instrument or chattel paper to enforce any remedy with respect thereto; provided, however, that the foregoing exclusion shall not apply if (i) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, instrument or chattel paper, or (ii) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code) or principles of equity); provided further that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Grantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, instrument or chattel paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Secured Party's unconditional continuing security interest in and to all rights, title and interests of Grantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, instrument or chattel paper and in any such monies and other proceeds of such contract, instrument or chattel paper.

2. Covenants and Warranties. Grantor represents, warrants, covenants and agrees as follows:

(a) Grantor is now the sole owner of the Collateral, except for non-exclusive licenses granted by Grantor to its customers in the ordinary course of business;

(b) During the term of this Agreement, Grantor will not transfer or otherwise encumber any interest in the Collateral, except for non-exclusive licenses granted by Grantor in the ordinary course of business or as set forth in this Agreement;

(c) To its knowledge, each of the Patents is valid and enforceable, and no part of the Collateral has been judged invalid or unenforceable, in whole or in part, and no claim has been made that any part of the Collateral violates the rights of any third party;

(d) Grantor shall deliver to Secured Party within thirty (30) days of the last day of each fiscal quarter, a report signed by Grantor, in form reasonably acceptable to Secured Party, listing any applications or registrations that Grantor has made or filed in respect of any patents, copyrights or trademarks and the status of any outstanding applications or registrations. Grantor shall promptly advise Secured Party of any material change in the composition of the Collateral, including but not limited to any

subsequent ownership right of the Grantor in or to any Trademark, Patent or Copyright not specified in this Agreement;

(e) Grantor shall use reasonable commercial efforts to (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights (ii) detect infringements of the Trademarks, Patents and Copyrights and promptly advise Secured Party in writing of material infringements detected and (iii) not allow any material Trademarks, Patents or Copyrights to be abandoned, forfeited or dedicated to the public without the written consent of Secured Party, which consent shall not be unreasonably withheld;

(f) Grantor shall apply for registration on an expedited basis (to the extent not already registered) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable: (i) those intellectual property rights listed on Exhibits A, B and C hereto within thirty (30) days of the date of this Agreement; and (ii) those additional intellectual property rights developed or acquired by Grantor from time to time in connection with any product or service, prior to the sale or licensing of such product or the rendering of such service to any third party (including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C), except with respect to such rights that Grantor determines in its sole but reasonable commercial judgment need not be registered to protect its own business interests. Grantor shall, from time to time, execute and file such other instruments, and take such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the Collateral. Grantor shall give Secured Party notice of all such applications or registrations; and

(g) Grantor shall not enter into any agreement that would materially impair or conflict with Grantor's obligations hereunder without Secured Party's prior written consent, which consent shall not be unreasonably withheld. Grantor shall not permit the inclusion in any material contract to which it becomes a party of any provisions that could or might in any way prevent the creation of a security interest in Grantor's rights and interests in any property included within the definition of the Collateral acquired under such contracts.

3. Further Assurances: Attorney in Fact.

(a) On a continuing basis, Grantor will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as reasonably requested by Secured Party, to perfect Secured Party's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in all Collateral.

(b) Grantor hereby irrevocably appoints Secured Party as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, from time to time in Secured Party's discretion, to take any action and to execute any instrument which Secured Party may deem necessary or advisable to accomplish the purposes of this Agreement, including (i) to modify, in its sole discretion, this Agreement without first obtaining Grantor's approval of or signature to such modification by amending Exhibits A, B and C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Grantor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Grantor no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral without the signature of Grantor where permitted by law, and (iii) after the occurrence of an Event of Default, to transfer the Collateral into the name of Secured Party or a third party to the extent permitted under the California Uniform Commercial Code.

4. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this Agreement:

(a) An Event of Default under the Loan Agreement; or

(b) Grantor breaches any warranty or agreement made by Grantor in this Agreement and, as to any breach that is capable of cure, Grantor fails to cure such breach within thirty (30) days of the sooner to occur of Grantor's receipt of notice of such breach from Secured Party or the date on which such breach first becomes known to Grantor.

5. Amendments. This Agreement may be amended only by a written instrument signed by both parties hereto, except for amendments permitted under Section 3 hereof to be made by Secured Party alone.

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

7. Several Nature of Secured Party's Obligations and Rights: Pari Passu Security Interests. This Agreement is and shall be interpreted for all purposes as separate and distinct agreements between Grantor and VLL4, on the one hand, and Grantor and VLL5, on the other hand, and nothing in this Agreement shall be deemed a joint venture, partnership or other association between VLL4 and VLL5. Each reference in this Agreement to "Secured Party" shall mean and refer to each of VLL4 and VLL5, singly and independent of one another. Without limiting the generality of the foregoing, the covenants and other obligations of "Secured Party" under this Agreement are several and not joint obligations of VLL4 and VLL5, and all rights and remedies of "Secured Party" under this Agreement may be exercised by VLL4 and/or VLL5 independently of one another. The security interests granted by Grantor to each of VLL4 and VLL5 hereunder and under the Loan Agreement shall be deemed to have been granted and perfected at the same time and shall be of equal priority.

[Signature Pages Follow]

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

GRANTOR:

Address of Grantor:

SERENEX, INC.

323 Foster Street, Durham, NC 27701
Attn: Chief Executive Officer

By: Richard Kent

Name: RICHARD KENT

Its: CEO

SECURED PARTY:

Address of Secured Party:

VENTURE LENDING & LEASING IV, INC.

2010 North First Street, Suite 310
San Jose, CA 95131
Attn: President

By: _____

Name: _____

Its: _____

VENTURE LENDING & LEASING V, INC.

By: _____

Name: _____

Its: _____

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

GRANTOR:

Address of Grantor:

SERENEX, INC.

323 Foster Street, Durham, NC 27701
Attn: Chief Executive Officer

By: _____

Name: _____

Its: _____

SECURED PARTY:

Address of Secured Party:

VENTURE LENDING & LEASING IV, INC.

2010 North First Street, Suite 310
San Jose, CA 95131
Attn: President

By:  _____

Name: David R. Wanek

Its: Vice President

VENTURE LENDING & LEASING V, INC.

By:  _____

Name: David R. Wanek

Its: Vice President

[EXHIBITS A, B AND C TO BE COMPLETED BY GRANTOR]

EXHIBIT A

Copyrights

None

EXHIBIT B

Patents

<u>Description</u>	<u>Registration/Serial Number</u>	<u>Registration/Application Date</u>
Naphthridine Compounds Useful In Methods For Treating Inflammation and Cancer, And For Inhibiting Angiogenesis	60/598753	3-Aug-04
2, 8-Disubstituted Naphthridine Derivatives	60/598518	3-Aug-04
2, 8-Disubstituted Naphthridine Derivatives	11/196532	3-Aug-05
2, 8-Disubstituted Naphthridine Derivatives	US05/27764	3-Aug-05
Benzene, Pyridine, Pyrimidine and Pyridazine Derivatives	60/611829	21-Sep-04
HSP-90 Inhibitors	P060100720	27-Feb-06
Benzene, Pyridine And Pyridazine Derivatives	95106716	27-Feb-06
Benzene, Pyridine, Pyrimidine And Pyridazine Derivatives	60/656230	25-Feb-05
HSP-90 Inhibitors	60/705715	4-Aug-05
Benzene, Pyridine, and Pyridazine Derivatives	11/363449	27-Feb-06
Tetrahydroindolone And Tetrahydroindazolone Derivatives	US06/06988	27-Feb-06
Carbazole Derivatives as Anti-Cancer, Anti-mitotic Agents	60/718249	16-Sep-05
Carbazole Derivatives	11/532340	15-Sep-06
Carbazole Derivatives As Anti-Cancer, Anti-Mitotic Agents	US06/36258	15-Sep-06
Formulations For Treating Or Preventing Mucositis	12525/01	14-Sep-00
Formulations For Treating Or Preventing Mucositis	2381203	14-Sep-00
Formulations For Treating Or Preventing Mucositis	974107.5	14-Sep-00
Formulations For Treating Or Preventing Mucositis	2001-522996	14-Sep-00
Tetracycline Based Mucositis Treatment	60/153892	14-Sep-99
Formulations For Treating Or Preventing Mucositis	09/661836	14-Sep-00
Formulations for Treating or Preventing Mucositis	11/230397	20-Sep-05
Formulations For Treating Or Preventing Mucositis	09/815762	23-Mar-01
Formulations For Treating Or Preventing Mucositis	10/007197	4-Dec-01
Formulations For Treating Or Preventing Mucositis	US00/40907	14-Sep-00
Methods And Compositions For Treating And Preventing Mucositis	30837/99	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	PI9908857-6	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	2323863	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	99912467	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	138430	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	2000-535325	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	2006-129700	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	PAa2000008902	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	506931	12-Mar-99

Methods And Compositions For Treating And Preventing Mucositis	P343442	12-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	60/077977	13-Mar-98
Method And Compositions For Treating And Preventing Mucositis	09/065012	23-Apr-98
Methods And Compositions For Treating And Preventing Mucositis	09/265299	9-Mar-99
Methods And Compositions For Treating And Preventing Mucositis	09/800855	7-Mar-01
Methods And Compositions For Treating And Preventing Mucositis	10/260093	27-Sep-02
Methods And Compositions For Treating And Preventing Mucositis	09/588584	6-Jun-00
Methods And Compositions For Treating And Preventing Mucositis	US99/05437	12-Mar-99
Rapid Release Tetracycline Formulation for Treating or Preventing Muscositis	60/390068	20-Jun-02
Rapid Release Formulation for Treating or Preventing Muscositis	60/407730	3-Sep-02
Rapidly Disintegrating Formulations for Treating or Preventing Muscositis	10/601259	20-Jun-03
Rapidly Disintegrating Formulations for Treating or Preventing Muscositis	US03/019686	20-Jun-03
Mucoadhesive Tetracycline Formulations	2003279133	6-Oct-03
Mucoadhesive Tetracycline Formulations	2501614	6-Oct-03
Mucoadhesive Tetracycline Formulations	3770641.3	6-Oct-03
Mucoadhesive Tetracycline Formulations	2004-543160	6-Oct-03
Mucoadhesive Tetracycline Formulations	60/416742	7-Oct-02
Mucoadhesive Tetracycline Formulations	10/679913	6-Oct-03
Mucoadhesive Tetracycline Formulations	US03/031479	6-Oct-03
Benzene, Pyridine, Pyrimidine, and Pyridazine Derivatives	60/727965	18-Oct-05
Tetracycline Package Formulations	60/813949	15-Jun-06
Stabilized Tetracycline	60/813925	15-Jun-06
Stabilized Tetracycline	60/814255	16-Jun-06
Hydroxycyclohexylamino Benzene, Pyridine, and Pyridazine Derivatives	60/777124	27-Feb-06
Isoquinoline, Quinazoline and Phthalazine Derivatives	60/823441	24-Aug-06
Pyrimidine and Pyrazine Derivatives	60/823428	24-Aug-06
Benzene, Pyridine, and Pyridazine Derivatives	60/823414	24-Aug-06
Purine, Pyrimidine, and Azaindole Derivatives	60/823423	24-Aug-06
Dihydropyridazine, Tetrahydropyridine, Chromanone, and Dihydronaphthalenone Derivatives	60/823467	24-Aug-06
Benzene, Pyridine, and Pyridazine Derivatives	60/823461	24-Aug-06
Benzene, Pyridine, and Pyridazine Derivatives	60/823457	24-Aug-06
Pyrrrole, Thiophene, Furan, Imidazole, Oxazole, and Thiazole Derivatives	60/823419	24-Aug-06
Purine and Pyrimidine Derivatives	60/829222	12-Oct-06
Gama Linked ATP Sepharose	5,536,822	3/9/1994
Affinity Displacement Avidity Effect Protein Resolution Methods	PCT/US2004/ 041673	12/10/2004
Alkyl-Linked Nucleotide Compositions	10/762,078	1/21/2004
Alkyl-linked Nucleotide Compositions	PCT/US2004/001745	1/22/2004
Alkyl-linked Nucleotide Compositions	PA/a/2005/007793	1/22/2004

Alkyl-linked Nucleotide Compositions	2006-501102	1/22/2004
Alkyl-linked Nucleotide Compositions	04704469.8	1/22/2004
Alkyl-linked Nucleotide Compositions	2004205922	1/22/2004
Alkyl-linked Nucleotide Compositions	2,513,901	1/22/2004
Alkyl-linked Nucleotide Compositions	541,775	1/22/2004
Folate Antagonists Having Improved Selectivity	2,543,860	10/28/2004
Folate Antagonists Having Improved Selectivity	2004288183	10/28/2004
Folate Antagonists Having Improved Selectivity	PCT/US2004/ 035719	10/28/2004
Folate Antagonists Having Improved Selectivity	04796588.4	4/24/2006
Folate Antagonists Having Improved Selectivity	n/a	4/27/2006
Integrated Protein Affinity Capture Centrifugation Device	10/022,931 6,716,395	12/18/2001
Integrated Protein Affinity Capture Centrifugation Device	2002364063	12/17/2002
Integrated Protein Affinity Capture Centrifugation Device	2,470,799	12/17/2002
Integrated Protein Affinity Capture Centrifugation Device	PCT/US02/40385	12/17/2002
Integrated Protein Affinity Capture Centrifugation Device	2798530.8	12/17/2002
Methods of Improving Therapy for HIV Infection	PCT/US2004/ 029892	9/10/2004
Proteome Mining	09/958,787	1/16/2002
Proteome Mining	42322/00 774776	4/12/2000
Proteome Mining	2004218671	4/12/2000
Proteome Mining	2000-612748	4/12/2000
Proteome Mining	2,369,868	4/12/2000
Proteome Mining	00922084.9	4/12/2000
Quinone Reductase 2 and Aldehyde Dehydrogenase as Therapeutic Targets	10/243,947	9/16/2002
Quinone Reductase 2 and Aldehyde Dehydrogenase as Therapeutic Targets	2002336528	9/16/2002
Quinone Reductase 2 and Aldehyde Dehydrogenase as Therapeutic Targets	2,460,317	9/16/2002
Quinone Reductase 2 and Aldehyde Dehydrogenase as Therapeutic Targets	02773382.3	9/16/2002
Methotrexate Derivatives Useful for Treating Cancer and Arthritis	60/589,696	7/21/2004
Methotrexate Derivatives Useful for Treating Cancer and Arthritis	PCT/US2005/0256	7/20/2005
Methotrexate Derivatives Useful for Treating Cancer and Arthritis	11/186,404	7/21/2005
Substituted Quinoline and Quinazoline Inhibitors of Quinone Reductase 2	60/611,471	9/20/2004
Substituted Quinoline and Quinazoline Inhibitors of Quinone Reductase 2	PCT/US2005/0335	9/19/2005
Substituted Quinoline and Quinazoline Inhibitors of Quinone Reductase 2	11/228,833	9/16/2005
Gel Band Picking Head	29/223,501	2/15/2005
Gel Box for an Auto Sample Feed Gel System	29/223,479	2/15/2005
Ribosomal Protein S6 As A Pharmacodynamic Marker For Hsp90 Inhibition	60/762,755	1/27/2006

EXHIBIT C

Trademarks

<u>Description</u>	<u>U.S. Registration/Application Number</u>	<u>Registration/Application Date</u>
LOMADEX	77/048105	11/20/2006
Miscellaneous Design	78/534265	12/17/2004
SERENEX (Stylized)	2,870,061	8/3/2004
SERENEX	2,870,062	8/3/2004
SERENEX (figurative mark)	002726321	3/3/2005
SERENEX (and design)	915546	11/4/2002
SERENEX	002726370	5/24/2004
SERENEX	915544	11/4/2002
FPF	76371010	2/14/2002
PROTEOME MINING	76/346144	12/6/2001
RATIONALIZING	76/346131	12/6/2001
PROTEOMICS		
FUNCTIONAL PROTEOME FRACTIONATION	76/346142	12/6/2001
FPF	915550	11/4/2002
PROTEOME MINING	915549	6/5/2002
FUNCTIONAL PROTEOME FRACTIONATION	915548	6/5/2002
RATIONALIZING	915547	6/5/2002
PROTEOMICS		
RATIONALIZING	002726479	6/6/2002
PROTEOMICS		
PROTEOME MINING	002726354	6/6/2002
FPF	002726438	6/6/2002
FUNCTIONAL PROTEOME FRACTIONATION	002726339	6/6/2002
FUNCTIONAL PROTEOME FRACTIONATION	1,142,311	6/5/2002
FPF	1,142,313	6/5/2002
PROTEOME MINING	1,142,306	6/5/2002
SERENEX	1,141,989	5/31/2002
SERENEX (and design)	1,141,992	5/31/2002
RATIONALIZING	1,142,312	6/5/2002
PROTEOMICS		