PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
Gem Pharmaceuticals, LLC	10/01/2009

RECEIVING PARTY DATA

Name:	Pharma Investments LLC
Street Address:	200 Randolph Ave
City:	Huntsville
State/Country:	ALABAMA
Postal Code:	35801

PROPERTY NUMBERS Total: 5

Property Type	Number
Patent Number:	5948896
Patent Number:	5942605
Patent Number:	7244829
Application Number:	11777057
Application Number:	11408000

OP $200.00 5948896

CORRESPONDENCE DATA

Fax Number: (256)539-6024
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 2565396000
Email: tburkett@leo-law.com
Correspondent Name: Todd Burkett
Address Line 1: 200 Randolph Ave
Address Line 2: Ste 200
Address Line 4: Huntsville, ALABAMA 35801

NAME OF SUBMITTER:	Todd Burkett

Total Attachments: 68

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Agreement") is made as of October 1, 2009, by Gem Pharmaceuticals, LLC, an Alabama limited liability company as pledgor (the "Borrower") for the benefit of Pharma Investments, LLC, an Alabama limited liability company, as lender (the "Lender").

WITNESSETH:

WHEREAS, Borrower and the Lender are parties to that certain Non-Revolving Credit Note and that certain Non-Revolving Credit and Loan Agreement of even date herewith (as the same may be hereafter amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement"); and

WHEREAS, Borrower has determined that its execution, delivery and performance of this Agreement directly benefits, and is within the corporate or other purposes and in the best interests of, such Borrower; and

WHEREAS, the Lender is willing to make loans and other financial accommodations to the Borrower as provided for in the Loan Agreement and the other Loan Documents (as defined below), but only upon the condition, among others, that Borrower shall have executed and delivered this Agreement, to secure the prompt and complete payment, observance and performance of, among other things, all Obligations (as defined below) of the Borrower arising under the Loan Agreement and the other Loan Documents, whether such Obligations now exist or are hereafter incurred, are absolute or contingent, or are matured or unmatured (including in each case any renewals or extensions thereof, being hereinafter collectively, referred to as the "Secured Obligations") by the granting of the security interest contemplated by this Agreement;

NOW, THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Defined Terms.

(a) Capitalized terms used herein shall have the meanings ascribed to such terms in the Loan Agreement to the extent not otherwise defined or limited herein.

(b) The words "hereof," "herein" and "hereunder" and words of like import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and Section references are to this Agreement unless otherwise specified.

(c) "Loan Documents" means the Loan Agreement together with all documents executed in connection with the Loan Agreement, including all modifications, extensions, and renewals thereof.

(d) "Obligations" means (i) all obligations owed by Borrower to Lender under the Loan Documents, as they may be modified from time to time, and/or applicable law (whether due or not due, absolute or contingent, liquidated or unliquidated, determined or undetermined, direct or indirect, and whether recovery of upon the Obligations may be or hereafter become barred by any statute of limitations

or otherwise be or become unenforceable); and (ii) all interest and costs, including but not limited to attorneys' fees and expenses, incurred by Lender in originating, documenting, administering, collecting, enforcing, or compromising any of the foregoing.

(e) All terms defined in this Agreement in the singular shall have comparable meanings when used in the plural, and vice versa, unless otherwise specified.

2. Incorporation of Premises. The premises set forth above are incorporated into this Agreement by this reference thereto and are made a part hereof.

3. Incorporation of the Loan Agreement. The Loan Agreement and the terms and provisions thereof are hereby incorporated herein in their entirety by this reference thereto.

4. Grant of Security Interest in Trademarks, Patents, Copyrights and Licenses. To secure the complete and timely payment, performance and satisfaction of all of the Obligations, Borrower hereby grants to the Lender, a continuing security interest in, as and by way of a first mortgage and security interest having priority over all other security interests, with power of sale to the extent permitted by applicable law, in all of Borrower's right, title and interest in and to Borrower's now owned or existing and hereafter acquired or arising:

(a) (i) trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications, including, without limitation, trade names, registered trademarks, trademark applications, registered service marks and service mark applications listed on Schedule 1 attached hereto and made a part hereof, and (A) all renewals thereof, (B) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof, (C) the right to sue for past, present and future infringements and dilutions thereof, (D) the goodwill of Borrower's business symbolized by the foregoing and connected therewith, and (E) all of Borrower's rights corresponding thereto throughout the world (all of the foregoing trademarks, trade names, registered trademarks and trademark applications, service marks, registered service marks and service mark applications, together with the items described in clauses (A)-(E) in this Section 4(a)(i), are sometimes hereinafter individually and/or collectively referred to as the "Trademarks"); and (ii) all proceeds of any and all of the foregoing, including, without limitation, license royalties and proceeds of infringement suits.

(b) (i) patents and patent applications, including, without limitation, the patents and patent applications listed on Schedule 2 attached hereto and made a part hereof, and (A) all renewals thereof, (B) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof, (C) the right to sue for past, present and future infringements and dilutions thereof, and (D) all of Borrower's rights corresponding thereto throughout the world (all of the foregoing patents and patent applications, together with the items described in clauses (A)-(D) in this Section 4(b)(i), are sometimes hereinafter individually and/or collectively referred to as the "Patents"); and (ii) all proceeds of any and all of the foregoing, including, without limitation, license royalties and proceeds of infringement suits.

(c) (i) copyrights and copyright registrations, including, without limitation, the copyright registrations and recordings thereof and all applications in connection therewith listed on Schedule 3 attached hereto and made a part hereof, and (A) all reissues, continuations, extensions or renewals thereof, (B) all income, royalties, damages and payments now and hereafter due and/or payable under

and with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof, (C) the right to sue for past, present and future infringements and dilutions thereof, (D) the goodwill of Borrower's business symbolized by the foregoing and connected therewith, and (E) all of Borrower's rights corresponding thereto throughout the world (all of the foregoing copyrights and copyright registrations, together with the items described in clauses (A)-(E) in this Section 4(c)(i), are sometimes hereinafter individually and/or collectively referred to as the "Copyrights"); and (ii) all products and proceeds of any and all of the foregoing, including, with limitation, licensed royalties and proceeds of infringement suits.

(d) rights under or interest in any patent, trademark, copyright or other intellectual property, including software license agreements with any other party, whether Borrower is a licensee or licensor under any such license agreement, including, without limitation, the license agreements listed on Schedule 4 attached hereto and made a part hereof, and the right to use the foregoing in connection with the enforcement of the Lender's rights under the Loan Agreement, including without limitation, the right to prepare for sale and sell any and all Inventory and Equipment now or hereafter owned by Borrower and now or hereafter covered by such licenses (all of the foregoing are hereinafter referred to collectively as the "Licenses"). Notwithstanding the foregoing provisions of this Section 4(d), the grant of a security interest in the Licenses shall not include any license agreement in effect as of the date hereof which by its terms prohibits the grant of the security interest contemplated by this Agreement; provided, however, that upon the termination of such prohibitions for any reason whatsoever, the provisions of this Section 4(d) shall be deemed to apply thereto automatically; and provided, further however, that Borrower shall fully disclose to the Lender all such prohibitions contained in the Licenses listed on Schedule 4 and shall promptly notify the Lender upon the termination of such prohibitions.

5. Actions By the Borrower. Borrower shall, at the sole expense of Borrower, perform all steps reasonably requested by the Lender at any time to perfect, maintain, protect, and enforce the security interest granted herein, including, as applicable, executing, delivering, and filing of this Agreement with the United States Patent and Trademark Office and authorizing the filing of Uniform Commercial Code financing or continuation statements, and amendments thereof, in form and substance reasonably satisfactory to the Lender.

6. New Trademarks, Copyrights, Patents and Licenses. Borrower represents and warrants that, from and after the date hereof, (a) the Trademarks listed on Schedule 1 include all of the trade names, registered trademarks, trademark applications, registered service marks and service mark applications now owned or held by Borrower, (b) the Patents listed on Schedule 2 include all of the patents and patent applications now owned or held by Borrower, (c) the Copyrights listed on Schedule 3 include all of the copyright registrations now owned or held by Borrower in whole or in part and that the Copyrights are subsisting and have not been adjudged invalid or unenforceable, (d) the Licenses listed on Schedule 4 include all of the patent, trademark, copyright or other intellectual property license agreements under which Borrower is the licensee or licensor other than licenses permitting Borrower to use any third-party off-the-shelf software that is not material to Borrower's business, and (e) no Liens, claims or security interests, charges or encumbrances in such Trademarks, Patents, Copyrights or Licenses have been granted by Borrower to any Person other than the Lender and except as disclosed in the Loan Agreement. If, prior to the termination of this Agreement, Borrower shall (i) obtain rights to or become entitled to the benefit of any new trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks or service mark applications, (ii) obtain rights to or become entitled to the benefit of any new patent or patent application or any reissue, division, continuation, renewal, extension or continuation-in-part of any Patent or any improvement on any Patent, (iii) obtain rights to or become entitled to the benefit of any new copyrights or copyright registrations, (iv) obtain rights to or

become entitled to the benefit of any new trademark, patent, copyright or other intellectual property license agreements, whether as licensee or licensor, or license renewals, or (v) enter into any new license agreement, the provisions of Section 4 above shall automatically apply thereto (to the extent permitted by licensors under agreements in connection with the granting of such licenses). Borrower shall give to the Lender prompt written notice of events described in clauses (i), (ii), (iii), (iv) and (v) of the preceding sentence. Borrower hereby authorizes the Lender to modify this Agreement unilaterally (i) by amending Schedule 1 to include any future trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications that are Trademarks under Section 4 above or under this Section 6, (ii) by amending Schedule 2 to include any future patents and patent applications, which are Patents under Section 4 above or under this Section 6, (iii) by amending Schedule 3 to include any future copyrights and copyright registrations and recordings thereof and all applications in connection therewith, which are Copyrights under Section 4 above or under this Section 6, (iv) by amending Schedule 4 to include any future trademark, patent, copyright or other intellectual property license agreements that are Licenses under Section 4 above or under this Section 6 and not otherwise excluded from the security interest granted under Section 4, and (v) by filing, in addition to and not in substitution for this Agreement, a duplicate original of this Agreement containing on Schedule 1 thereto, as the case may be, such future trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications and containing on Schedule 2 thereto, as the case may be, such future patents and patent applications, and containing on Schedule 3, as the case may be, such future copyrights and copyright registrations, and containing on Schedule 4 thereto, as the case may be, such future license agreements.

7. Royalties. Borrower hereby agrees that the use by the Lender of the Trademarks, Patents, Copyrights and Licenses as authorized hereunder in connection with the Lender's exercise of its rights and remedies under Section 16 or pursuant to any Loan Document shall be coextensive with Borrower's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Lender to Borrower.

8. Further Assignments and Security Interest. Borrower agrees (a) not to sell or assign any of its interests in, or grant any security interest in or license under, the Trademarks, Copyrights or Patents in favor of any Person other than the Lender without the prior and express written consent of the Lender and (b) not to sell or assign its respective interests in the Licenses without the prior and express written consent of the Lender; provided, however, that Borrower shall be permitted to grant non-exclusive licenses to the Borrower's customers in the ordinary course of business for the use of Borrower's software by such customers in the ordinary course of business.

9. Nature and Continuation of the Lender's Security Interest; Termination of the Lender's Security Interest. This Agreement is made for collateral security purposes only. This Agreement shall create a continuing security interest in the Trademarks, Patents, Copyrights and Licenses and shall terminate only when the Obligations have been paid in full and the Loan Agreement has been terminated. When this Agreement has terminated, the Lender shall promptly execute and deliver to Borrower, at the Borrower's expense, all termination statements and other instruments as may be necessary or proper to terminate the Lender's security interest in the Trademarks, Patents, Copyrights and Licenses, subject to any disposition thereof which may have been made by the Lender pursuant to this Agreement or any other agreement between Borrower and Lender.

10. Duties of Borrower. Borrower shall have the duty, to the extent desirable by Borrower in the normal conduct of Borrower's business, (a) to prosecute diligently any trademark application or service mark application that is part of the Trademarks pending as of the date hereof or hereafter until the termination of this Agreement, (b) to prosecute diligently any patent application that is part of the Patents

pending as of the date hereof or hereafter until the termination of this Agreement, and (c) to take all reasonable and necessary action to preserve and maintain all of Borrower's rights in the Trademarks, Patents, Copyrights and Licenses. Borrower further agrees (i) not to abandon any Trademark, Patent, Copyright or License that is necessary or economically desirable in the operation of Borrower's business without the prior written consent of the Lender, and (ii) to use its commercially reasonable efforts to maintain in full force and effect the Trademarks, Patents, Copyrights and Licenses that are or shall be necessary or economically desirable in the operation of Borrower's business. Any expenses incurred in connection with the foregoing shall be borne by Borrower. Lender shall have no duties with respect to the Trademarks, Patents, Copyrights or Licenses. Without limiting the generality of the foregoing, Lender shall not be under any obligation to take any steps necessary to preserve rights in the Trademarks, Patents, Copyrights or Licenses against any other Person, but Lender may do so at its option from and after the occurrence and during the continuance of a Default or an Event of Default, and all expenses incurred in connection therewith (including, without limitation, reasonable fees and expenses of attorneys and other professionals for Lender) shall be for the sole account of Borrower and shall be added to the Obligations secured hereby.

11. Indemnification by Borrower. Borrower hereby agrees to indemnify and hold harmless Lender for any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements (including, without limitation, attorneys' fees) of any kind whatsoever which may be imposed on, incurred by or asserted against Lender in connection with or in any way arising out of or related to any or all of the Trademarks, Patents, Copyrights or Licenses (including, without limitation, whether brought by Borrower or any other Person, suits, proceedings or other actions in which an allegation of liability, strict or otherwise, is or may be made by any Person who alleges or may allege having suffered damages as a consequence of alleged improper, imprudent, reckless, negligent, willful, faulty, defective or substandard design, testing, specification, manufacturing supervision, manufacturing defect, manufacturing deficiency, publicity or advertisement or improper use, howsoever arising or by whomsoever caused, of any inventions disclosed and claimed in the Patents or any of them); unless with respect to any of the above, such Person to be indemnified is judicially determined to have acted or failed to act with gross negligence or willful misconduct. The indemnification in this Section shall survive the termination of this Agreement.

12. Lender's Right to Sue. From and after the occurrence and during the continuance of an Event of Default, Lender shall have the right, but shall not be obligated, to bring suit in its own name to enforce the Trademarks, Patents, Copyrights and Licenses and, if Lender shall commence any such suit, Borrower shall, at the request of Lender, do any and all lawful acts and execute any and all proper documents reasonably required by Lender in aid of such enforcement. Borrower shall, upon demand, promptly reimburse Lender for all costs and expenses incurred by Lender in the exercise of its rights under this Section 12 (including, without limitation, fees and expenses of attorneys and other professionals for Lender).

13. Restrictions on Future Agreements. Borrower shall not, without Lender's prior written consent, enter into any agreement, including, without limitation, any license agreement, which is inconsistent with this Agreement, and Borrower further agrees that it will not take any action, and will use its best efforts not to permit any action to be taken by others subject to its control, including, without limitation, licensees, or fail to take any action, which would in any material respect adversely affect the validity or enforcement of the rights granted to Lender under this Agreement or the rights associated with the Trademarks, Patents, Copyrights or Licenses.

14. Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but the provisions of this Agreement are

severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part hereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.

15. Modification. Neither this Agreement nor any provision hereof may be altered, amended or modified in any way, except as specifically provided in Section 6 hereof or in a written instrument signed by the parties hereto.

16. Power of Attorney; Cumulative Remedies.

(a) Upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably designates, constitutes and appoints Lender (and all officers and agents of Lender designated by Lender in its sole and absolute discretion) as Borrower's true and lawful attorney-in-fact, and authorizes Lender and any of Lender's designees, in Borrower's or Lender's name, upon the occurrence and during the continuation of an Event of Default to take any action and execute any instrument necessary or reasonably advisable to accomplish the purposes of this Agreement, including, without limitation, to (i) endorse Borrower's name on all applications, documents, papers and instruments necessary or desirable for Lender in the use of the Trademarks, Patents, Copyrights or Licenses, (ii) assign, pledge, convey or otherwise transfer title in or dispose of the Trademarks, the Patents, the Copyrights or the Licenses to any Person, (iii) grant or issue any exclusive or nonexclusive license under the Trademarks, Patents, Copyrights or Licenses to any Person, and (iv) take any other actions with respect to the Trademarks, Patents, Copyrights or Licenses as Lender deems in its best interest for the payment of the Obligations. Borrower hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney is coupled with an interest and shall be irrevocable until this Agreement is terminated. Borrower acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of Lender under the Loan Agreement or any other Loan Document, but rather is intended to facilitate the exercise of such rights and remedies.

(b) Lender shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Trademarks, Patents, Copyrights or Licenses may be located or deemed located. Upon the occurrence and during the continuance of an Event of Default and the election by the Lender to exercise any of its rights and remedies under Section 9-504 or Section 9-505 of the Uniform Commercial Code, or Section 9-610, Section 9-620 or other equivalent provisions of revised Article 9 of the Uniform Commercial Code as in effect in any jurisdiction, with respect to the Trademarks, Patents, Copyrights or Licenses, Borrower agrees to assign, convey and otherwise transfer title in and to the Trademarks, Patents, Copyrights and Licenses, to Lender or any transferee of Lender and to execute and deliver to Lender or any such transferee all such agreements, documents and instruments as may be necessary, in Lender's sole discretion, to effect such assignment, conveyance and transfer. All of Lender's rights and remedies with respect to the Trademarks, Patents, Copyrights and Licenses, whether established hereby, by the Loan Agreement or by any other agreements or by law, shall be cumulative and may be exercised separately or concurrently. Notwithstanding anything set forth herein to the contrary, it is hereby expressly agreed that upon the occurrence and during the continuance of an Event of Default, Lender may exercise any of the rights and remedies provided in this Agreement, the Loan Agreement or any of the other Loan Documents. To the extent permitted by applicable law, Borrower agrees that any notification of intended disposition of any of the Trademarks, Patents, Copyrights or Licenses required by law shall be deemed reasonably and properly given if given at least ten (10) days before such disposition.

17. Successors and Assigns. This Agreement shall be binding upon Borrower, its respective successors and assigns, and shall inure to the benefit of Lender and its nominees, successors and assigns. Borrower's successors and assigns shall include, without limitation, a receiver or a trustee; provided, however, that Borrower shall not voluntarily assign or transfer its rights or obligations hereunder without Lender's prior written consent.

18. Governing Law. This Agreement shall be construed and enforced and the rights and duties of the parties shall be governed by in all respects in accordance with the laws and decisions of the State of Alabama without reference to the conflicts or choice of law principles thereof.

19. Notices. All notices or other communications hereunder shall be given in the form and manner and to the addresses set forth in the Loan Agreement.

20. Section Titles. The Section titles herein are for convenience of reference only, and shall not affect in any way the interpretation of any of the provisions hereof.

21. Execution in Counterparts. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Delivery of a counterpart hereof via facsimile transmission shall be effective as delivery of a manually executed counterpart of this Agreement hereof.

22. Merger. This Agreement, together with the other Loan Documents, represents the final agreement of Borrower and Lender with respect to the matters contained herein and may not be contradicted by evidence of prior or contemporaneous agreements, or subsequent oral agreements, between Borrower and Lender.

23. Waivers. Lender's failure, at any time or times hereafter, to require strict performance by Borrower of any provision of this Agreement shall not waive, affect or diminish any right of Lender thereafter to demand strict compliance and performance therewith nor shall any course of dealing between Borrower and Lender have such effect. No single or partial exercise of any right hereunder shall preclude any other or further exercise thereof or the exercise of any other right. None of the undertakings, agreements, warranties, covenants and representations of Borrower contained in this Agreement shall be deemed to have been suspended or waived by Lender unless such suspension or waiver is in writing signed by an officer of Lender, and directed to Borrower to which such suspension or waiver applies and specifying such suspension or waiver.

24. Effectiveness. This Agreement shall become effective on the date and year first written above.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, Borrower has executed this Security Agreement at Birmingham, Alabama on the date set forth next to Borrower's acknowledgement below, to be effective as of the 1st day of October 2009.

Gem Pharmaceuticals, LLC, an Alabama limited liability company ("Borrower")

By: Gerald M. Walsh
Name: Gerald M. Walsh
Title: CEO

Borrower's Address:
941 Lake Forest Circle
Birmingham, Alabama 35244

ACKNOWLEDGMENT

State of Alabama)
) ss.
County of Madison)

On this _____ day of October 2009, before me personally appeared Gerald M. Walsh, a CEO of Gem Pharmaceuticals, LLC, an Alabama limited liability company, who acknowledged him/herself to be CEO of such limited liability company, to me known to be the person who executed the foregoing instrument on behalf of and by the authority of such limited liability company and acknowledged the same.

IN WITNESS WHEREOF, I hereunto set my hand and notarial seal.

Print Name: William Matthew Jennette
Notary Public, State of Alabama
My Commission Expires: 12/4/2010

PHARMA INVESTMENTS, LLC, an Alabama limited liability company ("Lender")

By: Karl W. Leo
Name: Karl W. Leo
Title: President

Lender's Address:
200 Randolph Avenue
Huntsville, Alabama 35801

SCHEDULE 1

Current Trademarks and Trademark Applications

None

Trade Names

None

Trademarks Not Currently In Use

None

SCHEDULE 2

Patents And Patent Applications

See Attached

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00002/	ORD	Monitoring	08/910218	13-Aug-1997		
Resp. Office: DC		N/A	5948896	07-Sep-1999		
Country: United States of America			**App. Client Ref.:**			
Title: PROCESSES FOR PREPARING 13-DEOXY ANTHRACYCLINE DERIVATIVES						
21790-00003/	ORD	Monitoring	09/033,659	03-Mar-1998		
Resp. Office: DC			5,942,605	24-Aug-1999		
Country: United States of America			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00004/	ORD	Monitoring	739033	13-Aug-1998		
Resp. Office: DC			739033	13-Aug-1998		
Country: Australia			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	PCT	Monitoring	98111477	13-Aug-1998		
Resp. Office: DC						
Country: Brazil			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	2,297,149	13-Aug-1998		
Resp. Office: DC			2,297,149	27-Mar-2007		
Country: Canada			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/1	ORD	Monitoring	98809247.6	13-Aug-1998		
Resp. Office: DC			98809247.6	23-Jun-2004		
Country: China (People's Republic)			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00004/	ORD	Monitoring	PV2000-471	13-Aug-1998	Instructions to FA	15-Nov-2009
Resp. Office: DC					Response Due	28-Nov-2009
Country: Czech Republic			App. Client Ref.:			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/1	ORD	Monitoring	98939359.0	13-Aug-1998		
Resp. Office: DC						
Country: European Patent Convention			App. Client Ref.:			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/2	DIV	Monitoring	05016274.2	27-Jul-2005		
Resp. Office: DC						
Country: European Patent Convention			App. Client Ref.:			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	01107045.9	08-Oct-2001		
Resp. Office: DC			1036070	11-Mar-2005		
Country: Hong Kong			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00004/	ORD	Monitoring	P0002717	13-Aug-1998		
Resp. Office: DC						
Country: Hungary			App. Client Ref.:			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	PCT	Monitoring	W20000490	13-Aug-1998		
Resp. Office: DC			ID0011407	13-Aug-2003		
Country: Indonesia			App. Client Ref.:			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00004/	PCT	Monitoring	134494	13-Aug-1998		
Resp. Office: DC			134494	25-Oct-2007		
Country: Israel			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	5094262000	13-Aug-1998		
Resp. Office: DC						
Country: Japan			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	2000-7001450	13-Aug-1998		
Resp. Office: DC			516105	13-Sep-2005		
Country: Korea, Republic of			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	001530	13-Aug-1998		
Resp. Office: DC			MX 237493	02-Jun-2006		
Country: Mexico			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	502247	13-Aug-1998		
Resp. Office: DC			502247	17-Dec-2001		
Country: New Zealand			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	PCT/US1998/016733	13-Aug-1998		
Resp. Office: DC						
Country: Patent Cooperation Treaty			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00004/	ORD	Monitoring	2000106443	13-Aug-1998		
Resp. Office: DC			2233165	27-Jul-2004		
Country: Russian Federation			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00004/	ORD	Monitoring	200001089-2	13-Aug-1998		
Resp. Office: DC			71420	16-Apr-2002		
Country: Singapore			**App. Client Ref.:**			
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Albania			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	29820/99	03-Mar-1999		
Resp. Office: DC			767348	19-Feb-2004		
Country: Australia			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			E 267206	19-May-2004		
Country: Austria			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Belgium			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/	ORD	Monitoring	PI9908387-6	30-Aug-2000		
Resp. Office: DC						
Country: Brazil			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	2,322,424	03-Mar-1999		
Resp. Office: DC						
Country: Canada			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	998036536	03-Mar-1999		
Resp. Office: DC			"	29-June-2004		
Country: China (People's Republic)			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Cyprus, Republic of			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	PV 2000-3178	03-Mar-1999		
Resp. Office: DC						
Country: Czech Republic			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Denmark			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/1	PCT	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: European Patent Convention			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Finland			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: France			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Germany			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Greece			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	RCN	Monitoring	01107045.9	08-Oct-2001		
Resp. Office: DC			HK1036070	11-Mar-2005		
Country: Hong Kong			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/	ORD	Monitoring	0102518	03-Mar-1999		
Resp. Office: DC						
Country: Hungary			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	W20001994	03-Mar-1999		
Resp. Office: DC			ID 0010304	08-Apr-2003		
Country: Indonesia			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Ireland			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	138117	03-Mar-1999		
Resp. Office: DC			138117	21-Nov-2006		
Country: Israel			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	83703 BE/2004	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Italy			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	2000534557	03-Mar-1999		
Resp. Office: DC						
Country: Japan			App. Client Ref.:			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/	ORD	Monitoring	2000-7009711	03-Mar-1999		
Resp. Office: DC			456088	28-Oct-2004		
Country: Korea, Republic of			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Latvia			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Lithuania			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Luxembourg			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Macedonia			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	PCT	Monitoring		03-Mar-1999		
Resp. Office: DC						
Country: Mexico			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Monaco			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Netherlands			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	507300	03-Mar-1999		
Resp. Office: DC			507300	09-Jun-2005		
Country: New Zealand			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	PCT/US1999/004704	03-Mar-1999		
Resp. Office: DC						
Country: Patent Cooperation Treaty			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Portugal			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Romania			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/	ORD	Monitoring	2000125238	03-Mar-1999		
Resp. Office: DC			2239640	10-Nov-2004		
Country: Russian Federation			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/	ORD	Monitoring	200004862.9	03-Mar-1999		
Resp. Office: DC			75490	30-Jun-2003		
Country: Singapore			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Slovenia			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Spain			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Sweden			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: Switzerland			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00006/1	EPP	Monitoring	99911093.5	03-Mar-1999		
Resp. Office: DC			1064294	19-May-2004		
Country: United Kingdom			**App. Client Ref.:**			
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING						
21790-00037/1	PCT	Monitoring	2005 304 698	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Australia			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	ORD	Monitoring	20070107	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Azerbaijan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	PI 051 7810-0	04-May-2007		
Resp. Office: DC		unknown				
Country: Brazil			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	2586135	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Canada			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	200580046100.7	27-Jul-2007		
Resp. Office: DC		unknown				
Country: China (People's Republic)			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						

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Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00037/	ORD	Monitoring	200701270	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Eurasian Patent Organization			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	01914418.7	08-Nov-2005		
Resp. Office: DC		unknown				
Country: European Patent Convention			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	AP2005010119	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Georgia			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	1760/KOLNP/2007	08-Nov-2005		
Resp. Office: DC		unknown				
Country: India			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	W-00 2007 01441	08-Nov-2005	**Application Status Check**	**24-Oct-2009**
Resp. Office: DC		unknown				
Country: Indonesia			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	182970	03-May-2007		
Resp. Office: DC		unknown				
Country: Israel			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						

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Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00037/1	PCT	Monitoring	100086586	26-Jun-2007		
Resp. Office: DC		unknown				
Country: Japan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/ 2009	PCT	Monitoring	2007/1565.1	08-Nov-2005	**Response Due**	**20-Oct-**
Resp. Office: DC		unknown				
Country: Kazakstan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	2007-7010414	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Korea, Republic of			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	ORD	Monitoring	20070083.1	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Kyrgyz Republic			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	2007/028	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Madagascar			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	PI20070744	11-May-2007		
Resp. Office: DC		unknown				
Country: Malaysia			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						

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Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00037/1	PCT	Monitoring	MX/a/2007/005543	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Mexico			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	3981	07-Jun-2007		
Resp. Office: DC		unknown				
Country: Mongolia			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	ORD	Monitoring	PCT/US2005/040346	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Patent Cooperation Treaty			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	1-2007-500947	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Philippines			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	2007121563	08-Jun-2007	**Application Status Check**	**22-Oct-2009**
Resp. Office: DC		unknown				
Country: Russian Federation			**App. Client Ref.:**			
Title: ANTHRACYCLINE DERIVATIVES, METHOD OF THE PREPARATION OF 13-BENZENESULFONYLHYDRAZONE ANTHRA CYCLINE DERIVATIVES, METHOD OF THE PREPARATION						
21790-00037/1	PCT	Monitoring	200703332-7	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Singapore			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						

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Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00037/1	PCT	Monitoring	2007/03968	08-Nov-2005		
Resp. Office: DC		unknown				
Country: South Africa			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	07000912	08-Nov-2005		
Resp. Office: DC		unknown				
Country: Tajikistan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	07/100929	08-Nov-2005		
Resp. Office: DC		unknown	563	28-Aug-2008		
Country: Turkmenistan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/	PCT	Monitoring	200706517	08-Nov-2005	**Application Status Check**	**24-Nov-**
2009						
Resp. Office: DC		unknown				
Country: Ukraine			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	402/2007	08-May-2007		
Resp. Office: DC		unknown				
Country: United Arab Emirates			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PRI	Monitoring	10/982873	08-Nov-2004		
Resp. Office: DC		unknown	7244829	17-Jul-2007		
Country: United States of America			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00037/2	CON	Monitoring	11/777057	12-Jul-2007		
Resp. Office: DC		unknown				
Country: United States of America			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/1	PCT	Monitoring	IAP 2007 0236	08-Nov-2005	**FYI - ANNUITY DUE**	**08-Nov-2009**
Resp. Office: DC		unknown		03-Dec-2008	**Application Status Check**	**24-Jan-2010**
Country: Uzbekistan			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00037/	PCT	Monitoring	1-2007-01131			
Resp. Office: DC		unknown				
Country: Viet Nam			**App. Client Ref.:**			
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES						
21790-00038/	PRO	Monitoring				
Resp. Office: DC		unknown				
Country: United States of America			**App. Client Ref.:**			
Title:						
21790-00040/1	PCT	Pending	2007240264	23-Apr-2007	**Annual Annuity**	**23-Apr-2012**
Resp. Office: DC		Not Given			**FYI - ANNUITY DUE**	**23-Apr-2012**
Country: Australia			**App. Client Ref.:**		**Request Examination**	**23-Apr-2012**
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES					**Annual Annuity Extended**	**23-Oct-2012**
21790-00040/1	PCT	Pending	544.08	23-Apr-2007	**Application Status Check**	**22-Oct-2009**
Resp. Office: DC		Not Given				
Country: Belize			**App. Client Ref.:**			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00040/1	PCT	Pending	PI0711256.4	23-Apr-2007	Application Status Check	24-Feb-2010
Resp. Office: DC		Not Given				
Country: Brazil			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	2649753	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: Canada			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Published	200780014343.1	23-Apr-2007	Request to Record in Hong Kong	06-Nov-2009
Resp. Office: DC		Not Given				
Country: China (People's Republic)			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	08 112386	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: Colombia			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Published	10377	23-Apr-2007	Application Status Check	06-Jan-2010
Resp. Office: DC		Not Given				
Country: Costa Rica			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	1722/2008	23-Apr-2007	Translation Fee Follow Up Date	19-Feb-2010
Resp. Office: DC		Not Given				
Country: Egypt			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00040/1	PCT	Published	07761129.1	23-Apr-2007	Application Status Check	06-Jan-2010
Resp. Office: DC		Not Given				
Country: European Patent Convention			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	ORD	Pending	09101503.9	18-Feb-2009	Application Status Check	21-Jan-2010
Resp. Office: DC		Not Given				
Country: Hong Kong			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/2	ORD	Pending		23-Apr-2007	Application Status Check	10-Mar-2010
Resp. Office: DC		Not Given				
Country: Hong Kong			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	4244/KOLNP/2008	23-Apr-2007	Application Status Check	06-Nov-2009
Resp. Office: DC		Not Given				
Country: India			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Published	W-00200803417	23-Apr-2007	Application Status Check	28-Jan-2010
Resp. Office: DC		Not Given				
Country: Indonesia			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	194707	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: Israel			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00040/1	PCT	Pending	506812/2009	23-Apr-2007	Application Status Check	30-Sep-2009
Resp. Office: DC		Not Given				
Country: Japan			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	2008-7027728	24-Apr-2007	Request Examination	23-Apr-2012
Resp. Office: DC		Not Given				
Country: Korea, Republic of			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	PI 20084183	23-Apr-2007	Request or Defer Examination	23-Apr-2011
Resp. Office: DC		Not Given			Deferred Exam	23-Apr-2012
Country: Malaysia			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	MX/a/2008013546	21-Oct-2008	Application Status Check	10-Oct-2009
Resp. Office: DC		Not Given				
Country: Mexico			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	572012	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: New Zealand			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	194707	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: Nicaragua			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00040/1	PCT	Granted	NG/C/2008/599	23-Apr-2007	FYI - ANNUITY DUE	23-Apr-2010
Resp. Office: DC		Not Given	NG/C/2008/599	18-Jun-2009		
Country: Nigeria			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	ORD	Closed	PCT/US2007/067225	23-Apr-2007		
Resp. Office: DC		Not Given				
Country: Patent Cooperation Treaty			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	1-2008-502300	13-Oct-2008	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given				
Country: Philippines			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	2008141682	23-Apr-2007	Application Status Check	01-Oct-2009
Resp. Office: DC		Not Given				
Country: Russian Federation			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	200807777-8	23-Apr-2007	Block Extension (Slow Track)	21-Apr-2011
Resp. Office: DC		Not Given				
Country: Singapore			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PCT	Pending	2008/08892	23-Apr-2007	Application Status Check	15-Oct-2009
Resp. Office: DC		Not Given			Annual Annuity	23-Apr-2010
Country: South Africa			App. Client Ref.:		Annual Annuity Extended	23-Oct-2010
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						

Patent Status Report by Client

Client: 21790 Gem Pharmaceuticals, LLC

Case Number/SubCase	Case Type	Status ClientReference #	App Number Pat Number	App Date Iss Date	Next Action(s)	Due Date(s)
21790-00040/1	PCT	Pending	a200813376	23-Apr-2007	Application Status Check	21-Nov-2009
Resp. Office: DC		Not Given				
Country: Ukraine			App. Client Ref.:			
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES						
21790-00040/1	PRI	Published	11/408000	21-Apr-2006	Appeal Brief Due	25-Oct-2009
Resp. Office: DC		Not Given			Appeal Brief Due (x)	25-Nov-2009
Country: United States of America			App. Client Ref.:		Appeal Brief Due (xx)	25-Dec-2009
Title: ANTICANCER TREATMENT WITH A COMBINATION OF TAXANES AND 13-DEOXYANTHRACYCLINES					Appeal Brief Due (xxx)	25-Jan-2010
					Appeal Brief Due (xxxx)	25-Feb-2010
					Appeal Brief Due (xxxxx) ESP	25-Mar-2010
21790-00040/1	PCT	Published	1-2008-02829	23-Apr-2007		
Resp. Office: DC		Not Given				
Country: Viet Nam			App. Client Ref.:			
Title: AN ANTICANCER COMPOSITION, PHARMACEUTICAL COMPOSITION COMPRISING THE SAME AND METHOD FOR PREPARATION THEREOF						

Report Selection

Tuesday, September 29, 2009

RecordCount: 123

by Client

by Case Number

	Remarks	Inventors	Abstract	Actions Due
	Print	Print	Print	Next
	Do Not Print	Do Not Print	Do Not Print	All

Preview before printing

Date Range Filing Issue Expiration Last Update

From: To:

Case Number: Resp. Office:

Client: 21790

Agent:

Country:

Area: Attorney:

Inventor:

Owner:

Status(es Case

Status

Active

Inactive

All

SCHEDULE 3

Copyrights

None

SCHEDULE 4

Licenses

See Attached

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "Agreement") dated as of June 4th 2007 (the "Effective Date") is entered into between GEM PHARMACEUTICALS, LLC, an Alabama limited liability company ("Gem"), having a place of business at 941 Lake Forrest Circle, Birmingham, Alabama 35244, and PARAMOUNT BIOSCIENCES, LLC, a New York limited liability company ("Paramount"), having a place of business at 4365 Executive Drive, Suite 1500, San Diego, California 92121.

WHEREAS, Gem owns or has rights in the Technology (as defined below).

WHEREAS, Paramount desires to obtain an exclusive license under Gem's rights in the Technology on the terms and conditions set forth below.

WHEREAS, Paramount intends to assign this Agreement to one of its portfolio companies.

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

1. DEFINITIONS

For purposes of this Agreement, the terms defined in this Section 1 shall have the respective meanings set forth below:

1.1 "Active Pharmaceutical Ingredient" shall mean any chemical, biochemical, biological or pharmaceutical entity that is useful or necessary for use of the Technology in the Field.

1.2 "Affiliate" shall mean, with respect to any Person, any other Person which directly or indirectly controls, is controlled by, or is under common control with, such Person. A Person shall be regarded as in control of another Person if it owns, or directly or indirectly controls, at least fifty percent (50%) of the voting stock or other ownership interest of the other Person, or if it directly or indirectly possesses the power to direct or cause the direction of the management and policies of the other Person by any means whatsoever.

1.3 "Competent Authority(ies)" shall mean, collectively, (a) the governmental entities in each country or supranational organization that is responsible for the regulation of any Product intended for use in the Field or the establishment, maintenance and/or protection of rights related to the Licensed IP Rights (including the FDA, the EMEA and the MHLW), or (b) any other applicable regulatory or administrative agency in any country or supranational organization that is comparable to, or a counterpart of, the foregoing.

1.4 "EMEA" shall mean the European Agency for the Evaluation of Medicinal Products of the European Union, or the successor thereto.

1.5 "FDA" shall mean the Food and Drug Administration of the United States, or the successor thereto.

1.6 "Field" shall mean the prevention, treatment, diagnosis, detection, monitoring or predisposition testing of all diseases, states or conditions in humans or other animals relating to Oncology.

1.7 "Financing" shall mean any financing of the Paramount portfolio company to which this Agreement is assigned, whether in one transaction or a series of related transactions, in which such portfolio company receives aggregate gross proceeds of at least $10,000,000 in connection with the sale or issuance of any equity securities (convertible or otherwise) or debt securities.

1.8 "First Commercial Sale" shall mean, with respect to any Product, the first sale of such Product after the granting of any marketing and pricing approvals mandated by the Competent Authorities, if any.

1.9 "Gem In-Licenses" shall mean all agreements (as modified, amended or restated as of the Effective Date), pursuant to which Gem or its Affiliates derive any right, title or interest in or to Licensed IP Rights.

1.10 "Licensed IP Rights" shall mean, collectively, the Licensed Patent Rights and the Licensed Know-How Rights.

1.11 "Licensed Know-How Rights" shall mean all trade secret and other know-how rights in and to all data, information, compositions and other technology (including, but not limited to, formulae, procedures, protocols, techniques and results of experimentation and testing) which are necessary or useful to make, use, develop, sell or seek regulatory approval to market a composition, or to practice any method or process, at any time claimed or disclosed in any issued patent or pending patent application within the Licensed Patent Rights or which otherwise is useful or necessary for the practice of the Technology.

1.12 "Licensed Patent Rights" shall mean (a) the patents and patent applications listed on Exhibit A hereto, (b) all patents and patent applications in any country of the world that claim or cover the Technology in which Gem heretofore or hereafter has an ownership or (sub)licensable interest, (c) all divisions, continuations, continuations-in-part, that claim priority to, or common priority with, the patent applications listed in clauses (a) and (b) above or the patent applications that resulted in the patents described in clauses (a) and (b) above, and (d) all patents that have issued or in the future issue from any of the foregoing patent applications, including utility, model and design patents and certificates of invention, together with any reissues, renewals, extensions or additions thereto.

1.13 "MHLW" shall mean the Ministry of Health, Labour and Welfare of Japan, or the successor thereto.

1.14 "NDA" shall mean a New Drug Application, or similar application for marketing approval of a Product for use in the Field submitted to the FDA, or its foreign equivalent.

1.15 "Net Sales" shall mean, with respect to any Product, the gross sales price of such Product invoiced by Paramount or its Affiliate to customers who are not Affiliates (or are Affiliates but are the end users of such Product) less, to the extent actually paid or accrued by Paramount or its Affiliate (as applicable), (a) credits, allowances, discounts and rebates to, and chargebacks from the account of, such customers for nonconforming, damaged, out-dated and returned Product; (b) freight and insurance costs incurred by Paramount or its Affiliate (as applicable) in transporting such Product to such customers; (c) cash, quantity and trade discounts, rebates and other price reductions for such Product given to such customers under price reduction programs; (d) sales, use, value-added and other direct taxes incurred on the sale of such Product to such customers; (e) customs duties, tariffs, surcharges and other governmental charges incurred in exporting or importing such Product to such customers; (f) sales commissions incurred on the sale of such Product to such customers; and (g) an allowance for uncollectible or bad debts determined in accordance with generally accepted accounting principles.

1.16 "Net Sublicensing Revenues" shall mean, with respect to any Product, the aggregate cash consideration received by Paramount or its Affiliates in consideration for the sublicense under the Licensed Patent Rights or Licensed Know-How Rights by Paramount or its Affiliates to a Third Party sublicensee with respect to such Product (including royalties received by Paramount or its Affiliates based on sales of such Product by such sublicensee, but excluding amounts received to reimburse Paramount's or its Affiliates' cost to perform research, development or similar services conducted for such Product after signing the agreement with the Third Party, in reimbursement of patent or other out-of-pocket expenses relating to such Product, or in consideration for the purchase of any debt or securities of Paramount or its Affiliates).

1.17 "Oncology" shall mean a class of diseases or disorders characterized by uncontrolled division of cells and the ability of these cells to invade other tissues, either by direct growth into adjacent tissue through invasion or by implantation into distant sites by metastasis (in which cancer cells are transported through the blood or lymphatic system).

1.18 "Onset" shall mean, with respect to a specific human clinical trial, the enrollment of the first subject or patient in such clinical trial.

1.19 "Person" shall mean an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, pool, syndicate, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

1.20 "Phase I Clinical Trial" shall mean a human clinical trial that is intended to initially evaluate the safety and/or pharmacological effect of a Product in subjects or that would otherwise satisfy requirements of 21 C.F.R. 312.21(a), or its foreign equivalent.

1.21 "Phase II Clinical Trial" shall mean a human clinical trial in any country that is intended to initially evaluate the effectiveness of a Product for a particular indication or indications in patients with the disease or indication under study or would otherwise satisfy requirements of 21 CFR 312.21(b), or its foreign equivalent.

1.22 "Phase IIa Clinical Trial" shall mean a Phase II Clinical Trial that is solely intended to make a preliminary determination of the effectiveness of a Product for a particular indication or indications in patients with the disease or indication under study.

1.23 "Phase IIb Clinical Trial" shall mean a Phase II Clinical Trial, other than one that is solely intended to make a preliminary determination of the effectiveness of a Product for a particular indication or indications in patients with the disease or indication under study.

1.24 "Phase III Clinical Trial" shall mean a human clinical trial in any country, the results of which could be used to establish safety and efficacy of a Product as a basis for an NDA or would otherwise satisfy requirements of 21 CFR 312.21(c), or its foreign equivalent.

1.25 "Product(s)" shall mean any product that if made, used, sold, offered for sale or imported absent the license granted hereunder would infringe a Valid Claim, or that otherwise uses or incorporates the Licensed Know-How Rights.

1.26 "Registration(s)" shall mean any and all permits, licenses, authorizations, registrations or regulatory approvals (including NDAs) required and/or granted by any Competent Authority as a prerequisite to the development, manufacturing, packaging, marketing and selling of any product.

1.27 "Royalty Term" shall mean, with respect to each Product in each country, the term for which a Valid Claim remains in effect and would be infringed but for the license granted by this Agreement, by the use, offer for sale, sale or import of such Product in such country.

1.28 "Successful Completion" means, with respect to a specified human clinical trial, the achievement (as determined by the sponsor of such trial) of the primary clinical endpoint identified in the protocol for such trial.

1.29 "Technology" shall mean all compositions, devices, methods, uses, technology, data and information comprising, responsible for, resulting from or relating to (a) chemical derivatives of doxorubicin (including without limitation the compound referred to by Gem as GPX-150), and (b) products comprising such chemicals, and (c) processes and uses of such chemicals related to Oncology.

1.30 "Third Party" shall mean any Person other than Gem, Paramount and their respective Affiliates.

1.31 "Valid Claim" shall mean either (i) a claim in an issued and unexpired patent included in the Licensed Patent Rights; or (ii) a claim in a pending patent application included in the Licensed Patent Rights that has been pending for less than six (6) years; and in either instance, such claim which has not been held permanently revoked, unenforceable or

invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and which has not been surrendered through reissue or disclaimed as being invalid or unenforceable or otherwise permanently held invalid or unenforceable.

2. REPRESENTATIONS AND WARRANTIES

2.1 Mutual Representations and Warranties. Each party hereby represents and warrants to the other party as follows:

2.1.1 Such party is a corporation duly organized, validly existing and in good standing under the laws of the state in which it is incorporated.

2.1.2 Such party (a) has the corporate power and authority and the legal right to enter into this Agreement and to perform its obligations hereunder, and (b) has taken all necessary corporate action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder. This Agreement has been duly executed and delivered on behalf of such party, and constitutes a legal, valid, binding obligation, enforceable against such party in accordance with its terms.

2.1.3 All necessary consents, approvals and authorizations of all governmental authorities and other Persons required to be obtained by such party in connection with this Agreement have been obtained.

2.1.4 The execution and delivery of this Agreement and the performance of such party's obligations hereunder (a) do not conflict with or violate any requirement of applicable laws or regulations, and (b) do not conflict with, or constitute a default under, any contractual obligation of it.

2.2 Gem Representations and Warranties. Gem hereby represents and warrants to Paramount as follows:

2.2.1 Gem (a) is the sole owner or exclusive licensee of the Licensed IP Rights, and except as Gem has expressly informed Paramount in writing prior to the date of this Agreement, has not granted to any Third Party any license or other interest in the Licensed IP Rights in the Field, (b) is not aware of any Third Party patent, patent application or other intellectual property rights that would be infringed (i) by practicing any process or method or by making, using or selling any composition which is claimed or disclosed in the Licensed Patent Rights or which constitutes Licensed Know-How Rights, or (ii) by making, using or selling Products in the Field, and (c) is not aware of any infringement or misappropriation by a Third Party of the Licensed IP Rights in the Field.

2.2.2 Gem has provided Paramount with complete and correct copies of all Gem In-Licenses, and there have been no modifications, amendments or restatements other than as provided to Paramount prior to the Effective Date. The Gem In-Licenses are in full force and effect in accordance with their terms. After giving effect to this Agreement, there exist no

breaches, defaults or events which would (with the giving of notice, the passage of time or both) give rise to a breach, default or other right to terminate or modify any Gem In-License. Gem has not transferred or granted, and Gem shall not transfer or grant, to any Third Party any license or other interest in the Gem In-Licenses in the Field.

3. LICENSE GRANT

3.1 Licensed IP Rights. Gem hereby grants to Paramount an exclusive, worldwide license (with the right to grant sublicenses through multiple tiers) under the Licensed IP Rights to conduct research and to develop, make, have made, use, offer for sale, sell and import Products for use in the Field. All sublicenses granted by Paramount shall contain terms and conditions consistent with those of this Agreement.

3.2 Gem In-Licenses. Gem shall timely pay in full all amounts required to be paid by Gem, and timely perform in full all obligations required to be performed by Gem, under all Gem In-Licenses. Gem promptly shall provide Paramount with copies of all notices and other deliveries received under the Gem In-Licenses. Without the prior express written consent of Paramount, Gem shall not (and shall take no action or make no omission to) modify or waive any provision of any Gem In-License that could impair the value of the licenses to Paramount herein, or to terminate or have terminated any Gem In-License. If any Gem In-License is terminated for any reason, Gem shall (at the request of Paramount) use commercially reasonable efforts to effect the granting to Paramount of a direct license under such Gem In-License containing terms and conditions no less favorable to Paramount than the payment terms of such Gem In-License. Notwithstanding anything to the contrary herein, Gem represents that as of the Effective Date of this Agreement no Gem In-Licenses are in existence.

3.3 Availability of the Licensed IP Rights. Gem shall provide Paramount with a copy of all information available to Gem relating to the Licensed IP Rights, Products or Technology, including without limitation: (a) regulatory submissions, (b) communications with the Competent Authorities (including the minutes of any meetings and correspondence regarding patent applications), (c) trial master files, including case report forms, (d) listings and tables of results from the clinical trials, (e) treatment-related serious adverse event reports from the clinical trials, (f) storage of and access permission to any retained samples of materials used in clinical trials, and (g) access to CROs involved in the clinical trials.

3.4 Technical Assistance.

3.4.1 For a period of one (1) year following the date of this Agreement, Gem shall provide such technical assistance to Paramount as Paramount reasonably requests regarding the Licensed IP Rights, Products or Technology. Paramount shall pay to Gem its documented reasonable out-of-pocket costs of providing such technical assistance which shall include reasonably allocated overhead expenses.

3.4.2 At the request of Paramount, Gem shall sell to Paramount any portion of the clinical supplies of Product currently in the possession or control of Gem or its Affiliates at a purchaser price equal to Gem's cost-of-goods sold (determined in accordance with generally accepted accounting principles). Gem represents and warrants that, to the best of its

knowledge, such Product shall conform to the applicable specifications therefor, shall have been manufactured and stored in accordance with applicable laws and regulations, and shall not be adulterated or misbranded.

3.5 Registrations. Gem acknowledges and agrees that Paramount shall own all Registrations for Products for use in the Field. Gem hereby grants to Paramount a free-of-charge right to reference and use and have full access to all other Registrations and all other regulatory documents that relate to the Licensed IP Rights, Products or Technology, including INDs, BLAs, NDAs and DMFs (whether as an independent document or as part of any NDA, and all chemistry, manufacturing and controls information), and any supplements, amendments or updates to the foregoing (for the purposes of this Section, the "Right of Reference"). Paramount shall have the right to (sub)license the Right of Reference to its sublicensees and Affiliates. Gem shall promptly notify Paramount of any written or oral notices received from, or inspections by any Competent Authority relating to any such Registrations, and shall promptly inform Paramount of any responses to such written notices or inspections and the resolution of any issue raised by such Competent Authority. During the time that Gem is the holder of a Registration, Paramount shall be entitled to attend any and all meetings and participate in telephone calls with the Competent Authorities, including without limitation any meeting preparation, meeting co-ordination and preparation of minutes.

3.6 Access to Manufacturers. Gem shall use its commercially reasonable efforts to provide access to Paramount to any suppliers of the API form of any Product for use in the Field on terms and conditions no less favorable than those terms and conditions between Gem and such supplier.

3.7 Right of First Negotiation to Expand the Field. If Gem or its Affiliates desire to commercialize Products for use in the prevention, treatment, diagnosis, detection, monitoring or predisposition testing of any disease, state or condition in humans or other animals (other than in the Field), Gem shall give to Paramount express written notice thereof, and the right to negotiate with Gem to enter into an amendment to this Agreement to add such indication to the Field. If, within forty-five (45) days after receipt of such written notice from Gem, Paramount gives written notice to Gem of its exercise of such right of negotiation, then the parties shall negotiate in good faith, for a period not to exceed sixty (60) days, and attempt to reach mutual agreement regarding terms and conditions of a mutually acceptable amendment to this Agreement to add such disease, state or condition to the Field. If Paramount fails to give Gem timely written notice of its exercise of such right of negotiation, or if the parties fail to reach mutual agreement and do not enter into a written agreement to add such disease, state or condition to the Field prior to the expiration of such sixty (60) day period, thereafter Gem and its Affiliates shall have the right to develop and commercialize Products for use in the prevention, treatment, diagnosis, detection, monitoring or predisposition testing of such disease, state or condition.

3.8 Neither Gem nor its Affiliates, directly or indirectly, shall enter into any agreement (or engage in negotiations therefor) with a Third Party to develop or commercialize Products for use in the prevention, treatment, diagnosis, detection, monitoring or predisposition testing of any disease, state or condition (other than in the Field), without first giving to Paramount express written notice thereof, and the first right to negotiate with Gem to enter into

an amendment to this Agreement to add such disease, state or condition to the Field. If, within forty-five (45) days after receipt of such written notice from Gem, Paramount gives written notice to Gem of its exercise of such right of first negotiation, then the parties shall negotiate in good faith, for a period not to exceed ninety (90) days, and attempt to reach mutual agreement regarding terms and conditions of a mutually acceptable amendment to this Agreement to add such disease, state or condition to the Field. If Paramount fails to give Gem timely written notice of its exercise of such right of first negotiation, or if the parties fail to reach mutual agreement and do not enter into a written agreement to add such disease, state or condition to the Field prior to the expiration of such sixty (60) day period, thereafter Gem shall have the right to enter into an agreement with any Third Party to develop or commercialize Products for use in the prevention, treatment, diagnosis, detection, monitoring or predisposition testing of such disease, state or condition, [provided that such agreement is not more favorable to such Third Party than the terms and conditions last offered by Gem to Paramount].

4. FINANCIAL TERMS

4.1 License Fees.

4.1.1 Within three (3) days following the Effective Date, Paramount shall pay to Gem a license fee of $200,000.

4.1.2 Within thirty (30) days following the first to occur of (a) the date that is nine (9) months following the Effective Date, and (b) the completion of a Financing, Paramount shall pay to Gem an additional license fee of $200,000.

4.2 Royalties.

4.2.1 Royalty Rate. During the applicable Royalty Term for a Product, subject to the terms and conditions of this Agreement, Paramount shall pay to Gem the following royalties with respect to such Product:

(a) The following percentage of Net Sales of such Product by Paramount and its respective Affiliates:

4% for such Net Sales up to $100,000,000 in such calendar year,
5% for such Net Sales in excess of $100,000,000 up to $300,000,000 in such calendar year,
6% for such Net Sales in excess of $300,000,000 up to $500,000,000 in such calendar year, and
7% for such Net Sales in excess of $500,000,000 in such calendar year.

(b) Five percent (5%) of Net Sales of such Product by a sublicensee (other than a Paramount Affiliate, or their respective Affiliates) or such sublicensee's Affiliates.

Only one royalty shall be owing for a Product regardless of how many Valid Claims cover such Product.

4.2.2 Third Party Royalties. If, in the reasonable opinion of competent outside legal counsel which does not otherwise represent Paramount, Gem or their Affiliates, Paramount, its Affiliates or sublicensees is required (excluding any contractual obligation of Paramount arising after the Effective Date and being unrelated to such reasonable opinion from competent outside legal counsel) to pay royalties to any Third Party in order to exercise its rights hereunder to make, have made, use, sell, offer to sale or import any Product, then Paramount shall have the right to credit fifty percent (50%) of such Third Party royalty payments against the royalties owing to Gem under Section 4.2.1 above with respect to sales of such Product in such country; provided, however, that Paramount shall not reduce the amount of the royalties paid to Gem under Section 4.2.1 above by reason of this Section 4.2.2, with respect to sales of such Product in such country, to less than three percent (3%) of Net Sales of such Product in such country. This Section 4.2.2. will apply only to prospective running royalties payable to third parties based upon the sale of Product, and no credit will be allowed for lump sum license fees, milestone payments, minimum annual royalties in excess of actually accrued royalties, or (subject to Article 9 hereof) for any amounts paid for past infringement of any Third Party rights or for any amount paid for rights not, in the reasonable opinion of competent outside legal counsel, required to permit Paramount to make, use, sell, offer for sale and import Products as contemplated by this Agreement.

4.3 Combination Products. If a Product also includes one or more Active Pharmaceutical Ingredients, or other ingredients reasonably needed for formulation or delivery of a Product (collectively, "Required Ingredients"), which is not covered by a Valid Claim, then for purposes of the royalty payments under Section 4.1 for Net Sales of such Products, such Net Sales, prior to the royalty calculation set forth in Section 4.1, first shall be multiplied by the fraction A/(A+B), where A is the value of the component covered by the Valid Claim and B is the value of the Required Ingredient that is not covered by the Valid Claim as reasonably determined by agreement of the Parties hereto, and such resulting amount shall be the "Net Sales" for purposes of the royalty calculation in Section 4.1 for such Product.

4.4 Development Milestones. Paramount shall pay to Gem the following milestone payments within thirty (30) days following the first achievement of the applicable development milestone:

$250,000	the Successful Completion of the first Phase I Clinical Trial of a Product sponsored by Paramount, its sublicensee or their respective Affiliates
$500,000	the Successful Completion of the first Phase IIa Clinical Trial of a Product sponsored by Paramount, its sublicensee or their respective Affiliates
$750,000	the Successful Completion of the first Phase IIb Clinical Trial of a Product sponsored by Paramount, its sublicensee or their respective Affiliates

$1,000,000	the Successful Completion of the first Phase III Clinical Trial of a Product sponsored by Paramount, its sublicensee or their respective Affiliates
$2,000,000	the acceptance for review by the FDA of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates
$4,000,000	the first final approval by the FDA of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates
$1,000,000	the first acceptance for review by the EMEA of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates
$2,000,000	the first final approval by the EMEA of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates
$500,000	the first acceptance for review by the MHLW of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates
$1,000,000	the first final approval by the MHLW of the first NDA for a Product that is sponsored by Paramount, its sublicensee or their respective Affiliates

4.5 Sales Milestones. Paramount shall pay to Gem the following milestone payments within thirty (30) days following the first achievement of the applicable sales milestone:

$2,000,000	Net Sales by Paramount, its sublicensee or their respective Affiliates of Products equals $100,000,000 in the aggregate
$4,000,000	Net Sales by Paramount, its sublicensee or their respective Affiliates of Products equals $200,000,000 in the aggregate
$10,000,000	Net Sales by Paramount, its sublicensee or their respective Affiliates of Products equals $500,000,000 in the aggregate

5. ROYALTY REPORTS AND ACCOUNTING

5.1 Royalty Reports. Within sixty (60) days after the end of each calendar quarter during the term of this Agreement following first to occur of the First Commercial Sale of a Product and the receipt by Paramount or its Affiliates of Net Sublicensing Royalties, Paramount shall furnish to Gem a quarterly written report showing in reasonably specific detail (a) the calculation of Net Sales during such calendar quarter; (b) the calculation of Net

Sublicensing Royalties for such quarter; (c) the calculation of the royalties, if any, that shall have accrued based upon such Net Sales and Net Sublicensing Royalties; (d) the withholding taxes, if any, required by law to be deducted with respect to such sales; and (e) the exchange rates, if any, used in determining the amount of United States dollars. With respect to sales of Products invoiced in United States dollars, the gross sales, Net Sales and royalties payable shall be expressed in United States dollars. With respect to (i) Net Sales invoiced in a currency other than United States dollars and (ii) cash consideration paid in a currency other than United States dollars by Paramount's sublicensees hereunder, all such amounts shall be expressed both in the currency in which the distribution is invoiced and in the United States dollar equivalent. The United States dollar equivalent shall be calculated using the average of the exchange rate (local currency per US$1) published in The Wall Street Journal, Western Edition, under the heading "Currency Trading" on the last business day of each month during the applicable calendar quarter.

5.2 Audits.

5.2.1 Upon the written request of Gem and not more than once in each calendar year, Paramount shall permit an independent certified public accounting firm of nationally recognized standing selected by Gem and reasonably acceptable to Paramount, at Gem's expense, to have access during normal business hours to such of the financial records of Paramount as may be reasonably determined by said certified public accounting firm as being necessary to verify the accuracy of the payment reports hereunder for the eight (8) calendar quarters immediately prior to the date of such request (other than records for which Gem has already conducted an audit under this Section. Paramount shall fully cooperate with Gem's and its accounting firm's reasonable requests with respect to such audit by, for example, providing access to relevant personnel as reasonably needed.

5.2.2 If such accounting firm concludes that additional amounts were owed during the audited period, Paramount shall pay such additional amounts within thirty (30) days after the date Gem delivers to Paramount such accounting firm's written report so concluding together with interest at prime rate of interest of Gem's primary financial institution. The fees charged by such accounting firm shall be paid by Gem; provided, however, if the audit discloses that the royalties payable by Paramount for such period are more than one hundred five percent (105%) of the royalties actually paid for such period, then Paramount shall pay the reasonable fees and expenses charged by such accounting firm.

5.2.3 Gem shall cause its accounting firm to retain all financial information subject to review under this Section 5.2 in strict confidence; provided, however, that Paramount shall have the right to require that such accounting firm, prior to conducting such audit, enter into an appropriate non-disclosure agreement with Paramount regarding such financial information. The accounting firm shall disclose to Gem only whether the reports are correct or not and the amount of any discrepancy. No other information shall be shared. Gem shall treat all such financial information as Paramount's Confidential Information

6. PAYMENTS

6.1 Payment Terms. Royalties shown to have accrued by each royalty report provided for under Section 5.1 shall be due on the date such royalty report is due. Payment of royalties in whole or in part may be made in advance of such due date.

6.2 Exchange Control. If at any time legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where the Product is sold, Paramount shall have the right, in its sole discretion, to make such payments by depositing the amount thereof in local currency to Gem's account in a bank or other depository institution in such country. If the royalty rate specified in this Agreement should exceed the permissible rate established in any country, the royalty rate for sales in such country shall be adjusted to the highest legally permissible or government-approved rate.

6.3 Withholding Taxes. Paramount shall be entitled to deduct the amount of any withholding taxes, value-added taxes or other taxes, levies or charges with respect to such amounts, other than United States taxes, payable by Paramount, its Affiliates or sublicensees, or any taxes required to be withheld by Paramount, its Affiliates or sublicensees, to the extent Paramount, its Affiliates or sublicensees pay to the appropriate governmental authority on behalf of Gem such taxes, levies or charges. Paramount shall use reasonable efforts to minimize any such taxes, levies or charges required to be withheld on behalf of Gem by Paramount, its Affiliates or sublicensees. Paramount promptly shall deliver to Gem proof of payment of all such taxes, levies and other charges, together with copies of all communications from or with such governmental authority with respect thereto.

7. RESEARCH AND DEVELOPMENT OBLIGATIONS

7.1 Research and Development Efforts.

7.1.1 Paramount shall use its commercially reasonable efforts to conduct such research, development and preclinical and human clinical trials as Paramount determines are necessary or desirable to obtain regulatory approval to manufacture and market such Products as Paramount determines are commercially feasible in the Field, and shall use its commercially reasonable efforts to obtain regulatory approval to market, and following approval to commence marketing and market each such Product in such countries in the Field as Paramount determines are commercially feasible.

7.1.2 Without limiting the generality of Section 7.1.1, Paramount, its Affiliate or its sublicensee shall satisfy each of the following development milestones (each a "Development Milestone"):

(a) Onset of a Phase I Clinical Trial for a Product not later than twelve (12) months following the Effective Date;

(b) Onset of a Phase IIa Clinical Trial for a Product not later than nine (9) months following the delivery to Paramount, its sublicensee or their respective Affiliates of the final clinical study report for the first Phase I Clinical Trial for such Product;

(c) Onset of a Phase IIb Clinical Trial for a Product not later than nine (9) months following the delivery to Paramount, its sublicensee or their respective Affiliates of the final clinical study report for the first Phase IIa Clinical Trial for such Product;

(d) Onset of a Phase III Clinical Trial for a Product not later than nine (9) months following the delivery to Paramount, its sublicensee or their respective Affiliates of the final clinical study report for the first Phase IIb Clinical Trial for such Product;

(e) Onset of the second Phase III Clinical Trial for a Product not later than nine (9) months following the delivery to Paramount, its sublicensee or their respective Affiliates of the final clinical study report for the first Phase III Clinical Trial for such Product;

(f) Filing of an NDA for a Product not later than nine (9) months following the delivery to Paramount, its sublicensee or their respective Affiliates of the final clinical study report for the second Phase III Clinical Trial for such Product.

7.1.3 Without prejudice to any remedies as provided in this Agreement and appropriate laws, in the event Paramount, its sublicensee or their respective Affiliates fails to achieve a Development Milestone, and such failure was not due to reason(s) beyond their reasonable control, Gem shall have the right to terminate this Agreement. For the avoidance of doubt and without prejudice to other reasons that may be deemed beyond the reasonable control of Paramount, its sublicensee or their respective Affiliates, should the failure to achieve a Development Milestone be caused by (a) a requirement by the FDA or other Competent Authority that Paramount, its sublicensee or their respective Affiliates perform additional studies or trials, that Paramount, its sublicensee or their respective Affiliates reformulate or alter the manufacturing process of any Product, that Paramount, its sublicensee or their respective Affiliates cease any clinical trial or redesign any clinical trial, or that Paramount, its sublicensee or their respective Affiliates perform any other action or cease to perform any action that otherwise delays the clinical development of any Product; or (b) the inability to procure, manufacture or have manufactured GMP-grade clinical or commercial supplies due to factors beyond the reasonable control of Paramount, its sublicensee or their respective Affiliates, then documentary proof of the cause of such failure shall be presented to Gem by Paramount, its sublicensee or their respective Affiliates prior to expiration of the subject Development Milestone, and, if reasonably corroborated by such documentary proof, Gem shall deem such failure to be beyond the reasonable control of Paramount, its sublicensee or their respective Affiliates, and Paramount, its sublicensee or their respective Affiliates automatically shall be granted reasonable time extensions or milestone adjustments to the extent of any such delay (the "Excused Delay"). The failure to submit such documentary proof to Gem as required in this Section 7.1.3. shall result in waiver of any right to claim an Excused Delay.

7.1.4 If Paramount, its sublicensee or their respective Affiliates fails to achieve a Development Milestone, taking into account any Excused Delay to which Paramount, its sublicensee or their respective Affiliates may be entitled, then Gem shall grant to Paramount, its sublicensee or their respective Affiliates additional time in which to achieve such Development Milestone subject to the payment to Gem of One Hundred Twenty Five Thousand Dollars ($125,000) for each three (3) month extension period (each, an "Extension Period") that is requested by Paramount, its sublicensee or their respective Affiliates. In no event shall

Paramount, its sublicensee or their Affiliates be entitled to more than four (4) Extension Periods during the term of this Agreement. Such request and payment by Paramount must be made within thirty (30) days after the expiration of the Development Milestone.

7.2 Records. Paramount shall maintain records, in sufficient detail and in good scientific manner, which shall reflect all work done and results achieved in the performance of its research and development regarding the Products. Paramount shall allow Gem free access to such records upon termination of this Agreement.

7.3 Reports. Within ninety (90) days following the end of each calendar year during the term of this Agreement, Paramount shall prepare and deliver to Gem a written summary report which shall describe (a) the research performed to date employing the Licensed IP Rights, (b) the progress of the development, and testing of Products in clinical trials, and (c) the status of obtaining regulatory approvals to market Products.

8. CONFIDENTIALITY

8.1 Confidential Information. During the term of this Agreement, and for a period of seven (7) years following the expiration or earlier termination hereof, each party shall maintain in confidence all information of the other party that is disclosed by the other party and identified as, or acknowledged to be, confidential at the time of disclosure (the "Confidential Information"), and shall not use, disclose or grant the use of the Confidential Information except on a need-to-know basis to those directors, officers, affiliates, employees, permitted licensees, permitted assignees and agents, consultants, clinical investigators or contractors, to the extent such disclosure is reasonably necessary in connection with performing its obligations or exercising its rights under this Agreement. To the extent that disclosure is authorized by this Agreement, prior to disclosure, each party hereto shall obtain agreement of any such Person to hold in confidence and not make use of the Confidential Information for any purpose other than those permitted by this Agreement. Each party shall notify the other promptly upon discovery of any unauthorized use or disclosure of the other party's Confidential Information.

8.2 Permitted Disclosures. The confidentiality obligations contained in Section 8.1 above shall not apply to the extent that (a) any receiving party (the "Recipient") is required (i) to disclose information by law, regulation or order of a governmental agency or a court of competent jurisdiction, or (ii) to disclose information to any governmental agency for purposes of obtaining approval to test or market a product, provided in either case that the Recipient shall provide written notice thereof to the other party and sufficient opportunity to object to any such disclosure or to request confidential treatment thereof; or (b) the Recipient can demonstrate that (i) the disclosed information was public knowledge at the time of such disclosure to the Recipient, or thereafter became public knowledge, other than as a result of actions of the Recipient in violation hereof; (ii) the disclosed information was rightfully known by the Recipient (as shown by its written records) prior to the date of disclosure to the Recipient by the other party hereunder; (iii) the disclosed information was disclosed to the Recipient on an unrestricted basis from a source unrelated to any party to this Agreement and not under a duty of confidentiality to the other party; or (iv) the disclosed information was independently developed by the Recipient without use of the Confidential Information disclosed by the other party. Notwithstanding any other provision of this Agreement, Paramount may disclose Confidential

Information of Gem relating to information developed pursuant to this Agreement to any Person with whom Paramount has, or is proposing to enter into, a business relationship, as long as such Person has entered into a confidentiality agreement with Paramount containing terms at least as stringent as those of this Article 8.

8.3 Terms of this Agreement. Except as otherwise provided in Section 8.2 above, Gem and Paramount shall not disclose any terms or conditions of this Agreement to any Third Party without the prior consent of the other party. Notwithstanding the foregoing, prior to execution of this Agreement, Paramount and Gem have agreed upon the substance of information that can be used to describe the terms of this transaction, and Paramount and Gem may disclose such information, as modified by mutual agreement from time to time, without the other party's consent.

9. PATENTS

9.1 Patent Prosecution and Maintenance. Paramount shall have the right and obligation to control, at its sole cost, the preparation, filing, prosecution and maintenance of all patents and patent applications within the Licensed Patent Rights. Paramount shall give Gem an opportunity to review and comment on the text of each patent application subject to this Section 9.1 before filing, and shall supply Gem with a copy of such patent application as filed, together with notice of its filing date and serial number. Paramount shall consider and incorporate in good faith all of Gem's reasonable comments. Gem shall cooperate with Paramount, execute all lawful papers and instruments and make all rightful oaths and declarations as may be necessary in the preparation, prosecution and maintenance of all patents and other filings referred to in this Section 9.1. If Paramount, in its sole discretion, decides to abandon the preparation, filing, prosecution or maintenance of any patent or patent application in the Licensed Patent Rights, then Paramount shall notify Gem in writing thereof at least three (1) month prior to any due date for action to prevent such abandonment, and following the date of such notice (a) Gem shall be responsible for and shall control, at its sole cost, the preparation, filing, prosecution and maintenance of such patents and patent applications, and (b) Paramount shall thereafter have no license under this Agreement to such patent or patent application.

9.2 Notification of Infringement. Each party shall notify the other party of any substantial infringement in the Field known to such party of any Licensed Patent Rights and shall provide the other party with the available evidence, if any, of such infringement.

9.3 Enforcement of Patent Rights. Paramount, at its sole expense, shall have the right to determine the appropriate course of action to enforce Licensed Patent Rights or otherwise abate the infringement thereof, to take (or refrain from taking) appropriate action to enforce Licensed Patent Rights, to defend any declaratory judgments seeking to invalidate or hold the Licensed Patent Rights unenforceable, to control any litigation or other enforcement action and to enter into, or permit, the settlement of any such litigation, declaratory judgments or other enforcement action with respect to Licensed Patent Rights, in each case in Paramount's own name and, if necessary for standing purposes, in the name of Gem and shall consider, in good faith, the interests of Gem in so doing. To the extent such settlement reasonably affects the interests of Gem, then prior to consummating such settlement, Paramount shall inform Gem of its intent, consult with Gem regarding all material decisions and shall consider in good faith all

of Gem's reasonable requests. If Paramount does not, within one hundred twenty (120) days of receipt of notice from Gem, abate the infringement or file suit to enforce the Licensed Patent Rights against at least one infringing party, Gem shall have the right to take and control whatever action it deems appropriate to enforce the Licensed Patent Rights; provided, however, that, within thirty (30) days after receipt of notice of Gem's intent to file such suit, Paramount shall have the right to jointly prosecute such suit and to fund one-half (½) the costs of such suit. The party controlling any enforcement action shall not settle the action or otherwise consent to an adverse judgment in such action that diminishes the rights or interests of the non-controlling party without the prior written consent of the other party. All monies recovered upon the final judgment or settlement of any such suit to enforce the Licensed Patent Rights shall be shared, after reimbursement of expenses, in relation to the damages suffered by each party. In the event that: (i) Paramount does not receive sufficient monies from a final judgment or settlement to cover its expenses associated with an action to enforce the Licensed Patent Rights ("Subject Action"); and (ii) in the opinion of competent outside legal counsel selected by Paramount it was reasonable to commence the Subject Action, then Paramount shall have the right to credit up to fifty percent (50%) of such expenses against any royalties or other fees owing by Paramount pursuant to Section 3.8 above for revenues generated in the country(ies) in which the Subject Action arose.

9.4 Cooperation. In any suit to enforce and/or defend the License Patent Rights pursuant to this Section 9, the party not in control of such suit shall, at the request and expense of the controlling party, reasonably cooperate and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

9.5 No Contest Clause. Licensee agrees not to directly or indirectly challenge or cause to be challenged the validity or enforceability of any Licensed Patent, or Licensor's ownership of any Licensed Patent, before any court, agency or tribunal, unless Licensee is charged with infringement of any Licensed Patent by Licensor or its affiliates. Licensee acknowledges that any breach of this clause will be cause for immediate termination of this Agreement.

10. TERMINATION

10.1 Expiration. Subject to Sections 10.2 and 10.3 below, this Agreement shall expire on a country-by-country basis upon the last to expire of the Licensed Patent Rights in such country. The license grant under Section 3.1 shall be effective at all times prior to such expiration, and within six (6) months prior to such expiration of this Agreement, at the request of Paramount (a) the license granted to Paramount hereby under the Licensed Know-How Rights shall continue and the parties shall negotiate a reasonable continuing royalty for such continuing license that fairly reflects the continuing value of the remaining Licensed Know-How Rights in the country in which the Licensed Patent Rights so expired, and (b) Sections 3.5 and 3.6 shall survive. In the event agreement is not reached prior to such expiration of this Agreement, Paramount, its sublicensee and their respective Affiliates shall discontinue all use of the Licensed Know-How Rights as of the date of such expiration.

10.2 Termination by Paramount. Paramount may terminate this Agreement, in its sole discretion, upon thirty (30) days prior written notice to Gem.

10.3 Termination for Cause. Except as otherwise provided in Section 12, Gem may terminate this Agreement upon or after the breach of any material provision of this Agreement by Paramount if Paramount has not cured such breach within thirty (30) days after receipt of express written notice thereof by Gem (provided, however, that no such thirty (30) day period shall be given for failures to achieve Development Milestones and such failures may only be cured, if at all, as set forth in Article 7); provided, however, if any default is not capable of being cured within such thirty (30) day period and Paramount is diligently undertaking to cure such default as soon as commercially feasible thereafter under the circumstances, Gem shall defer termination of this Agreement for an additional sixty (60) day period so long as Paramount is diligently undertaking to cure such default.

10.4 Effect of Expiration or Termination. Expiration or termination of this Agreement shall not relieve the parties of any obligation accruing prior to such expiration or termination, and the provisions of Sections 8, 10, 11 and 13 shall survive the expiration or termination of this Agreement. In the event of termination, upon Gem's written request, Paramount shall assign its rights in all Section 3.5 Registrations and provide all reasonable assistance to Gem in referencing, transferring, or reissuing said Registrations to Gem. Upon any termination of this Agreement, Gem shall use commercially reasonable efforts to grant a direct license to any sublicensee of Paramount hereunder having the same scope as such sublicense (assuming such sublicense is consistent with the terms and conditions of this Agreement) and on terms and conditions no less favorable to such sublicensee than the terms and conditions of this Agreement, provided that such sublicensee is not in default of any applicable obligations under this Agreement and agrees in writing to be bound by the terms and conditions of such direct license.

10.5 Assignment of Registrations and Other Intangible Property. In the event of termination for cause as provided in Section 10.3, Paramount shall assign to Gem all the rights of it, its sublicensees and their respective Affiliates in any Registrations, technology, information and data related to the Technology.

11. INDEMNIFICATION

11.1 Indemnification. Paramount shall defend, indemnify and hold Gem harmless from all losses, liabilities, damages and expenses (including attorneys' fees and costs) incurred as a result of any claim, demand, action or proceeding arising out of any breach of this Agreement by Paramount, or the gross negligence or willful misconduct of Paramount in the performance of its obligations under this Agreement, except in each case to the extent arising from the negligence or misconduct of Gem or the breach of this Agreement by Gem.

11.2 Procedure. Gem promptly shall notify Paramount of any liability or action in respect of which Gem intends to claim such indemnification, and Paramount shall have the right to assume the defense thereof with counsel selected by Paramount. The indemnity agreement in this Section 11 shall not apply to amounts paid in settlement of any loss, claim, damage, liability or action if such settlement is effected without the consent of Paramount, which

consent shall not be withheld unreasonably. The failure to deliver notice to Paramount within a reasonable time after the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve Paramount of any liability to Gem under this Section 11, but the omission so to deliver notice to Paramount will not relieve it of any liability that it may have to Gem otherwise than under this Section 11. Gem under this Section 11, its employees and agents, shall cooperate fully with Paramount and its legal representatives in the investigation and defense of any action, claim or liability covered by this indemnification.

11.3 Insurance. Paramount shall maintain product liability insurance with respect to the research, development, manufacture and sales of Products by Paramount in such amount as Paramount customarily maintains with respect to the research, development, manufacture and sales of its similar products. Paramount shall maintain such insurance for so long as it continues to research, develop, manufacture or sell any Products, and thereafter for so long as Paramount customarily maintains insurance covering the research, development, manufacture or sale of its similar products. Gem shall be named as additional insured. Such insurance and the endorsements shall be reasonably acceptable to Gem.

12. FORCE MAJEURE

Neither party shall be held liable or responsible to the other party nor be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected party including but not limited to fire, floods, embargoes, war, acts of war (whether war be declared or not), acts of terrorism, insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, acts of God or acts, omissions or delays in acting by any governmental authority or the other party.

13. MISCELLANEOUS

13.1 Notices. Any consent, notice or report required or permitted to be given or made under this Agreement by one of the parties hereto to the other party shall be in writing, delivered by any lawful means to such other party at its address indicated below, or to such other address as the addressee shall have last furnished in writing to the addressor and (except as otherwise provided in this Agreement) shall be effective upon receipt by the addressee.

If to Gem:
Gem Pharmaceuticals, LLC
941 Lake Forrest Circle
Birmingham, Alabama 35244
Attention: Gerald M. Walsh

With a copy to:
Gem Pharmaceuticals, LLC
200 Randolph Avenue
Huntsville, Alabama 35244
Attention: Karl W. Leo

If to Paramount: Paramount Biosciences, LLC
4365 Executive Drive, Suite 1500
San Diego, California 92121
Attention: Frank Taffy

with a copy to: Morrison & Foerster LLP
12531 High Bluff Drive, Suite 100
San Diego, California 92130
Attention: Mark R. Wicker

13.2 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflicts of law principles thereof.

13.3 Arbitration. Any dispute, controversy or claim initiated by either party arising out of, resulting from or relating to the performance by either party of its obligations under this Agreement (other than (a) any dispute, controversy or claim regarding the validity, enforceability, claim construction or infringement of any patent rights, or defenses to any of the foregoing, or (b) any bona fide third party action or proceeding filed or instituted in an action or proceeding by a Third Party against a party to this Agreement), whether before or after termination of this Agreement, shall be finally resolved by binding arbitration. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Any such arbitration shall be conducted under the Commercial Arbitration Rules of the American Arbitration Association by a panel of three arbitrators appointed in accordance with such rules. Any such arbitration shall be held in Birmingham, Alabama. The arbitrators shall have the authority to grant specific performance and to allocate between the parties the costs of arbitration in such equitable manner as they determine. Judgment upon the award so rendered may be entered in any court having jurisdiction or application may be made to such court for judicial acceptance of any award and an order of enforcement, as the case may be. In no event shall a demand for arbitration be made after the date when institution of a legal or equitable proceeding based upon such claim, dispute or other matter in question would be barred by the applicable statute of limitations. Notwithstanding the foregoing, either party shall have the right, without waiving any right or remedy available to such party under this Agreement or otherwise, to seek and obtain from any court of competent jurisdiction any interim or provisional relief that is necessary or desirable to protect the rights or property of such party, pending the selection of the arbitrators hereunder or pending the arbitrators' determination of any dispute, controversy or claim hereunder.

13.4 Assignment. Neither party shall assign its rights or obligations under this Agreement without the prior written consent of the other party; provided, however, that a party may, without such consent but with notice to the other party, assign this Agreement and its rights and obligations hereunder (a) to any Affiliate, or (b) in connection with the transfer or sale of all or substantially all of its business to which this Agreement relates, or in the event of its merger, consolidation, change in control or similar transaction. Any assignee shall assume all obligations of its assignor under this Agreement.

13.5 Waivers and Amendments. No change, modification, extension, termination or waiver of this Agreement, or any of the provisions herein contained, shall be valid unless made in writing and signed by duly authorized representatives of the parties hereto.

13.6 Entire Agreement. This Agreement embodies the entire agreement between the parties and supersedes any prior representations, understandings and agreements between the parties regarding the subject matter hereof. There are no representations, understandings or agreements, oral or written, between the parties regarding the subject matter hereof that are not fully expressed herein.

13.7 Severability. Any of the provisions of this Agreement which are determined to be invalid or unenforceable in any jurisdiction shall be ineffective to the extent of such invalidity or unenforceability in such jurisdiction, without rendering invalid or unenforceable the remaining provisions hereof and without affecting the validity or enforceability of any of the terms of this Agreement in any other jurisdiction.

13.8 Waiver. The waiver by either party hereto of any right hereunder or the failure to perform or of a breach by the other party shall not be deemed a waiver of any other right hereunder or of any other breach or failure by said other party whether of a similar nature or otherwise.

13.9 Certain Required Data Sharing. To the extent that a party, its Affiliate or (sub)licensee, in connection with its efforts to seek, obtain or maintain regulatory approval to test or market a Product in any jurisdiction, is required by applicable law to file or cross reference data of the other party, its Affiliate or (sub)licensee regarding a Product with any Competent Authority in such jurisdiction, then the other party shall provide such party with copies of such data (or the right to cross reference such data if previously filed with such Competent Authority) and hereby grants such party, its Affiliate or (sub)licensee (as applicable) the right to refer to and use such data solely for the purpose of seeking, obtaining and maintaining regulatory approval to test or market such Product in such jurisdiction.

13.10 Adverse Events Reporting. Each party shall promptly notify the other party immediately of any information that comes to such party's attention concerning any serious or unexpected side effect, injury, toxicity or sensitivity reaction, or any unexpected incidence, and the severity thereof, associated with the clinical uses, studies, investigations, tests and marketing of a Product. For purposes of this Section 13.10, "serious" shall mean an experience which (a) results in the death, permanent or substantial disability, in-patient hospitalization or prolongation of hospitalization, or (b) is a congenital anomaly, cancer, the result of an overdose or life threatening (only if unrelated to primary disease); and "unexpected" shall mean (x) for a nonmarketed Product, an experience that is not identified in nature, severity or frequency in the current clinical investigator's confidential information brochure, and (y) for a marketed Product, an event which is not listed in the current labeling for such Product, and includes an event that may be symptomatically and pathophysiologically related to an experience listed in the labeling but differs from the event because of increased frequency or greater severity or specificity. Each party further shall immediately notify the other party of any information received regarding any threatened or pending action by an agency that may affect the safety and efficacy claims of a Product. Upon receipt of any such information, the parties shall consult with each other in an

effort to arrive at a mutually acceptable procedure for taking appropriate action; provided, however, that nothing contained herein shall restrict either party's right to make a timely report of such matter to any government agency or take other action that it deems to be appropriate or required by applicable law, regulation or court order.

13.11 CRO Contract Assumption. Within three (3) business days following execution of this Agreement, Paramount shall request from Gem any documents related to the Technology ("Gem Documents"). Within thirty (30) days after Gem sends all of the Gem Documents in Gem's reasonable possession or control, Paramount shall inform Gem whether it shall assume Gem's contract with Premier Research related to the completion of a Phase 1 Clinical Trial ("CRO Contract"). In the event that Paramount fails to respond within such thirty (30) day period, then Paramount shall reimburse Gem for all costs incurred by Gem under such CRO Contract subsequent to expiration of such thirty (30) day period until such time that Paramount either (i) assumes the CRO Contract in writing; or (ii) declines to assume the CRO Contract in a writing. In the event that Paramount informs Gem of its intention to assume such CRO Contract in writing within such original thirty (30) day period, then Paramount shall be responsible for all costs incurred by Gem under such CRO Contract following the date of assumption by Paramount of such CRO Contract.

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

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the Effective Date.

GEM PHARMACEUTICALS, LLC

By: Gerald M. Walsh

Name: Gerald M. Walsh, PhD JD

Title: Chief Executive Officer

PARAMOUNT BIOSCIENCES, LLC

By: _____

Name: Bertrand C. Liang, MD MBA

Title: Vice Chairman

LEGAL APPROVAL
Initial: _____
Date: 6/4/17

EXHIBIT A

LICENSED PATENT RIGHTS

Case Number/Subcase Country Name	Case Type	Application Number/Date	Publication Number/Date	Patent Number/Date	Status Expiration Date
21790/00002/ United States of America	ORD	08/910,218 13-Aug-1997		5,948,896 07-Sep-1999	Granted 13-Aug-2017
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	MFC
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:* N/A	
	Agent Name:			*Agent Ref:*	
	Title: PROCESSES FOR PREPARING 13-DEOXY ANTHRACYCLINE DERIVATIVES				
21790/00003/ United States of America	ORD	09/033,659 03-Mar-1998	5,942,605	Granted 24-Aug-1999	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	MFC
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				
21790/00004/ Australia	ORD	739033 13-Aug-1998	739033	Granted 13-Aug-1998	13-Aug-2018
Resp. Office: DC	*Owner Name:* GEM PHARMACEUTICALS, LLC			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: HODGKINSON McINNES PAPPAS			*Agent Ref:* 2699A:FPO/PAR/JRM	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
	Inventor(s): ZHANG, Xini; WALSH, Gerald M.; OLSON, Richard D.				
21790/00004/ Brazil	PCT	98111477 13-Aug-1998			Pending 10-Feb-2020
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: HUGO SILVA, ROSE, SANTIAGO &			*Agent Ref:* PI 9811147-7	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				

21790/00004/	ORD	2,297,149		2,297,149		Granted
Canada		13-Aug-1998		27-Mar-2007		13-Aug-2018
Resp. Office: DC	*Owner Name:*	GEM PHARMACEUTICALS, LLC		*Attorney(s):*	BAA	
	Client Name:	Gem Pharmaceuticals, LLC		*Client Ref:*		
	Agent Name:	MOFFAT & COMPANY		*Agent Ref:*	1110-119	
	Title:	13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
	Inventor(s):	ZHANG, Xini; OLSON, Richard D.; WALSH, Gerald M.				

21790/00004/1	ORD	98809247.6	1270522A	98809247.6	Granted	
China (Peoples Republic)		13-Aug-1998	18-Oct-2000	23-Jun-2004		13-Aug-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):*	BAA	
	Client Name:	Gem Pharmaceuticals, LLC		*Client Ref:*		
	Agent Name:	SHANGHAI PATENT & TRADEMARK LAW		*Agent Ref:*	USPVSP-0010	
	Title:	13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				

21790/00004/	ORD	PV2000471				PENDING
Czech Republic		13-Aug-1998				13-Aug-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):*	BAA	
	Client Name:	Gem Pharmaceuticals, LLC		*Client Ref:*		
	Agent Name:			*Agent Ref:*		
	Title:	13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				

21790/00004/1	ORD	98939359.0	1011687 Abandoned			
European Patent Convention		13-Aug-1998	25-Feb-1999			13-Aug-2018
Resp. Office: DC	*Owner Name:*	GEM PHARMACEUTICALS, LLC		*Attorney(s):*	BAA	
	Client Name:	Gem Pharmaceuticals, LLC		*Client Ref:*		
	Agent Name:	SOCIETA ITALIANA BREVETTI		*Agent Ref:*	VA/X01148/EP	
	Title:	13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
	Inventor(s):	ZHANG, Xini; WALSH, Gerald M.; OLSON, Richard D.				

21790/00004/2	DIV	05016274.2	1600161 Published			
European Patent Convention		27-Jul-2005	30-Nov-2005			
Resp. Office: DC	*Owner Name:*	GEM PHARMACEUTICALS, LLC		*Attorney(s):*	BAA	
	Client Name:	Gem Pharmaceuticals, LLC		*Client Ref:*		
	Agent Name:	SOCIETA ITALIANA BREVETTI		*Agent Ref:*	BE649V	
	Title:	13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
	Inventor(s):	ZHANG, Xini; OLSON, Richard D.; WALSH, Gerald M.				

21790/00004/ Hong Kong	ORD	01107045.9 08-Oct-2001	1036070 21-Dec-2001	1036070 11-Mar-2005	Granted 08-Oct-2021	
Resp. Office: DC	*Owner Name:*				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name:				*Agent Ref:*	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM					
21790/00004/ Hungary	ORD	P0002717 13-Aug-1998	Pending		13-Aug-2018	
Resp. Office: DC	*Owner Name:*				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name: DANUBIA				*Agent Ref:* 91581-6824/MOI	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM					
21790/00004/ Indonesia	PCT	W20000490 13-Aug-1998	3792/2003 13-Aug-2003	ID0011407 13-Aug-2003	Granted 13-Aug-2018	
Resp. Office: DC	*Owner Name:*				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name: SHANGHAI PATENT & TRADEMARK LAW				*Agent Ref:* USPVSP-0012	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM					
21790/00004/ Israel	PCT	134494 13-Aug-1998			Pending	
Resp. Office: DC	*Owner Name:*				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name: Pearl Cohen Zedek Latzer				*Agent Ref:* P-2978-IL(12475)	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM					
21790/00004/ Japan	ORD	5094262000 13-Aug-1998	Published 18-Sep-2001			
Resp. Office: DC	*Owner Name:* GEM PHARMACEUTICALS, LLC				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name:				*Agent Ref:*	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM					
21790/00004/ Korea, Republic of	ORD	2000-7001450 13-Aug-1998	516105 Granted	13-Sep-2005	13-Aug-2018	
Resp. Office: DC	*Owner Name:*				*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC				*Client Ref:*	
	Agent Name: J. LEE & ASSOCIATES				*Agent Ref:* PA000106-CHX1	

Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM

Case Number/Subcase Country Name	Case Type	Application Number/Date	Publication Number/Date	Patent Number/Date	Status Expiration Date
21790/00004/ Mexico	ORD	001530 13-Aug-1998			Pending 13-Aug-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
21790/00004/ New Zealand	ORD	502247 502247 Granted 13-Aug-1998		17-Dec-2001	13-Aug-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
21790/00004/ Patent Cooperation Treaty	ORD	US98/16733 Expired 13-Aug-1998			
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
21790/00004/ Russian Federation	ORD	2000106443 13-Aug-1998		2233165 27-Jul-2004	Granted 13-Aug-2018
Resp. Office: DC	*Owner Name:* GEM PHARMACEUTICALS, LLC			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: KATZAROV S.A.			*Agent Ref:* 12789/RU	
	Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM				
	Inventor(s): ZHANG, Xini; OLSON, Richard D.; WALSH, Gerald M.				
21790/00004/ Singapore	ORD	200001089-2 71420 Granted 13-Aug-1998		16-Apr-2002	13-Aug-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: SHANGHAI PATENT & TRADEMARK LAW			*Agent Ref:* USPVSP-0011	

OFFICE, LLC
Title: 13-DEOXY ANTHRACYCLINE DERIVATIVES AND PROCESSES FOR PREPARING THEM

21790/00006/1
Albania
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SOCIETA ITALIANA BREVETTI *Agent Ref:* EX361V (BE524V)
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Australia
Resp. Office: DC

ORD 29820/99 767348 Granted
03-Mar-1999 19-Feb-2004 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: HODGKINSON McINNES PAPPAS *Agent Ref:* 2699B
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Austria
Resp. Office: DC

EPP 99911093.5 1064294 E 267206 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: GEM PHARMACEUTICALS, LLC *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SONN & PARTNER *Agent Ref:* R 44147/W/sk
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM
Inventor(s): ZHANG, Xini; OLSON, Richard D.

21790/00006/1
Belgium
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Brazil
Resp. Office: DC

ORD PI9908387-6 Pending
30-Aug-2000 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: HUGO SILVA, ROSE, SANTIAGO & *Agent Ref:* 990 8387-6

Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Canada
Resp. Office: DC

ORD 2,322,424 Pending
03-Mar-1999 03-Mar-2019

Owner Name:
Client Name: Gem Pharmaceuticals, LLC
Agent Name: MOFFAT & COMPANY
Attorney(s): BAA NA NA
Client Ref:
Agent Ref: 1110-122
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
China (Peoples Republic)
Resp. Office: DC

ORD 998036536 CN 1299366 Published
03-Mar-1999 13-Jun-2001 03-Mar-2019

Owner Name:
Client Name: Gem Pharmaceuticals, LLC
Agent Name: SHANGHAI PATENT & TRADEMARK LAW
Attorney(s): BAA NA NA
Client Ref:
Agent Ref: USPVSP-0017
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Cyprus, Republic of
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018

Owner Name:
Client Name: Gem Pharmaceuticals, LLC
Agent Name:
Attorney(s): BAA NA NA
Client Ref:
Agent Ref:
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Czech Republic
Resp. Office: DC

ORD PV 2000-3178 PENDING
03-Mar-1999 03-Mar-2019

Owner Name:
Client Name: Gem Pharmaceuticals, LLC
Agent Name: KATZAROV S.A.
Attorney(s): BAA NA NA
Client Ref:
Agent Ref: 13034/CZ
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Denmark
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018

Owner Name:
Client Name: Gem Pharmaceuticals, LLC
Agent Name:
Attorney(s): BAA NA NA
Client Ref:
Agent Ref:
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1	PCT	99911093.5	1064294	1064294	Granted
European Patent Convention		03-Mar-1999	03-Jan-2001	19-May-2004	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA NA NA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: SOCIETA ITALIANA BREVETTI			*Agent Ref:* BE524V	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/1	EPP	99911093.5	1064294	1064294	Granted
Finland		03-Mar-1999	03-Jan-2001	19-May-2004	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA NA NA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/1	EPP	99911093.5	1064294	1064294	Granted
France		03-Mar-1999	03-Jan-2001	19-May-2004	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA NA NA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: SOCIETA ITALIANA BREVETTI			*Agent Ref:* EX349V (BE524V)	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/1	EPP	99911093.5	1064294	1064294	Granted
Germany		03-Mar-1999	03-Jan-2001	19-May-2004	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA NA NA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name: SOCIETA ITALIANA BREVETTI			*Agent Ref:* EX345V (BE524V)	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/1	EPP	99911093.5	1064294	1064294	Granted
Greece		03-Mar-1999	03-Jan-2001	19-May-2004	03-Mar-2018
Resp. Office: DC	*Owner Name:*			*Attorney(s):* BAA NA NA	
	Client Name: Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:			*Agent Ref:*	
	Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/ Hungary	ORD	0102518				Published
		03-Mar-1999	28-Dec-2002			
Resp. Office: DC	*Owner Name:*	GEM PHARMACEUTICALS, LLC			*Attorney(s):*	BAA NA NA
	Client Name:	Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:	DANUBIA			*Agent Ref:*	92873-6824KT/LZS
	Title:	5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				
21790/00006/ Indonesia	ORD	W20001994		ID 0010304		Granted
		03-Mar-1999		08-Apr-2003		03-Mar-2019
Resp. Office: DC	*Owner Name:*				*Attorney(s):*	BAA NA NA
	Client Name:	Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:	SHANGHAI PATENT & TRADEMARK LAW			*Agent Ref:*	USPVSP-0017
	Title:	5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				
21790/00006/1 Ireland	EPP	99911093.5	1064294	1064294	Granted	
		03-Mar-1999	03-Jan-2001	19-May-2004		03-Mar-2018
Resp. Office: DC	*Owner Name:*				*Attorney(s):*	BAA NA NA
	Client Name:	Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:				*Agent Ref:*	
	Title:	5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				
21790/00006/ Israel	ORD	138117	138117	Granted		
		03-Mar-1999	20-Aug-2006	21-Nov-2006		03-Mar-2019
Resp. Office: DC	*Owner Name:*				*Attorney(s):*	BAA NA NA
	Client Name:	Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:	Pearl Cohen Zedek Latzer			*Agent Ref:*	P-3459-IL
	Title:	5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				
21790/00006/1 Italy	EPP	83703 BE/2004		1064294		Granted
		03-Mar-1999		19-May-2004		03-Mar-2018
Resp. Office: DC	*Owner Name:*				*Attorney(s):*	BAA NA NA
	Client Name:	Gem Pharmaceuticals, LLC			*Client Ref:*	
	Agent Name:				*Agent Ref:*	
	Title:	5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM				

21790/00006/
Japan
Resp. Office: DC

ORD 2000534557 2002-51829 Published
03-Mar-1999 25-Jun-2002 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: YASUTOMI & ASSOCIATES *Agent Ref:* PV22
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM
Inventor(s): ZHANG, Xini; OLSON, Richard D.

21790/00006/
Korea, Republic of
Resp. Office: DC

ORD 2000-7009711 456088 Granted
03-Mar-1999 28-Oct-2004 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: J. LEE & ASSOCIATES *Agent Ref:* PA000814-CHXI
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Latvia
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

Lithuania
Resp. Office: DC

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Luxembourg
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SOCIETA ITALIANA BREVETTI *Agent Ref:* EX353V (BE524V)
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Macedonia 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SOCIETA ITALIANA BREVETTI *Agent Ref:* EX363V (BE524V)
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Monaco 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Netherlands 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/ ORD 507300 507300 Granted
New Zealand 03-Mar-1999 09-Jun-2005 03-Mar-2019
Resp. Office: DC *Owner Name:* GEM PHARMACEUTICALS, LLC *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: A. J. PARK & SON *Agent Ref:* P430170 NT
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM
Inventor(s): ZHANG, Xini; OLSON, Richard D.

21790/00006/ ORD PCT/US99/04704 Expired
Patent Cooperation Treaty 03-Mar-1999
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*

Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Portugal
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1
Romania
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Russian Federation
Resp. Office: DC

ORD 2000125238 2239640 Granted
03-Mar-1999 10-Nov-2004 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: KATZAROV S.A. *Agent Ref:* 13035/RU
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/
Singapore
Resp. Office: DC

ORD 200004862.9 75490 Granted
03-Mar-1999 30-Jun-2003 03-Mar-2019
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SHANGHAI PATENT & TRADEMARK LAW OFFICE, LLC *Agent Ref:* USPVSP-0016
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM
Inventor(s): ZHANG, Xini; OLSON, Richard D.

21790/00006/1
Slovenia
Resp. Office: DC

EPP 99911093.5 1064294 1064294 Granted
03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*

Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Spain 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Sweden 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SOCIETA ITALIANA BREVETTI *Agent Ref:* EX357V (BE524V)
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
Switzerland 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: SOCIETA ITALIANA BREVETTI *Agent Ref:* EX343V (BE524V)
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00006/1 EPP 99911093.5 1064294 1064294 Granted
United Kingdom 03-Mar-1999 03-Jan-2001 19-May-2004 03-Mar-2018
Resp. Office: DC *Owner Name:* *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:*
Agent Name: *Agent Ref:*
Title: 5-IMINO-13-DEOXY ANTHRACYCLINE DERIVATIVES, THEIR USES, AND PROCESSES FOR PREPARING THEM

21790/00037/1 ORD PCT/US05/40346 WO 2006/052915 Published
Patent Cooperation Treaty 08-Nov-2005 18-May-2006
Resp. Office: DC *Owner Name:* GEM PHARMACEUTICALS, LLC *Attorney(s):* BAA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:* unknown
Agent Name: *Agent Ref:*
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES
Inventor(s): WALSH, Gerald M.; OLSON, Richard D.

21790/00037/1 PRI 10/982,873 US 2006-0100421 A1 Published
United States of America 08-Nov-2004 11-May-2006
Resp. Office: DC
Owner Name: GEM PHARMACEUTICALS, LLC *Attorney(s):* BAA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:* unknown
Agent Name: *Agent Ref:*
Title: COMPOSITIONS AND PROCESSES FOR PREPARING 13-DEOXY-ANTHRACYCLINES

21790/00038/ PRO Transfered
United States of America 24-Apr-2001
Resp. Office: DC
Owner Name: *Attorney(s):* BAA NA NA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:* unknown
Agent Name: *Agent Ref:*
Title:

21790/00040/1 PRI 11/408,000 Pending
United States of America 21-Apr-2006
Resp. Office: DC
Owner Name: GEM PHARMACEUTICALS, INC. *Attorney(s):* BAA BAA BAA
Client Name: Gem Pharmaceuticals, LLC *Client Ref:* Not Given
Agent Name: *Agent Ref:*
Title: Anticancer treatment with a combination of taxanes and 13-deoxyanthracyclines
Inventor(s): OLSON, Richard D.; WALSH, Gerald M.