Form PTO-1594 (Rev. 03/01) REI (Rev. 03/01) 7 OMB No. 0651-0027 (exp. 5/31/2002) 7 Tab settings ⇔⇔	U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office 947556 Please record the attached original documents or copy thereof.
1. Name of conveying party(ies): The Immune Response Corporation Individual(s) General Partnership Corporation-State of Delaware Other	2. Name and address of receiving party(ies) Name: Kevin Kimberlin Partners, L.P. Internal Address: Street Address: Street Address: Street Ny Zip:10022 Individual(s) citizenship Association
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other Execution Date: November 9, 2001 4. Application number(s) or registration number(s): A. Trademark Application No.(s) See Schedule 1	General Partnership Limited Partnership Corporation-State of Delaware Other If assignee is not domiciled in the United States, a domestic representative designation is attached: Yes No (Designations must be a separate document from assignment) Additional name(s) & address(es) attached? Yes No B. Trademark Registration No.(s) See Schedule 2
5. Name and address of party to whom correspondence concerning document should be mailed: Name: Edward P. Kelly Internal Address: Kirkpatrick & Lockhart LLP	7. Total fee (37 CFR 3.41)
Street Address: 1251 Avenue of the Americas City: New York State: NY Zip: 10020	8. Deposit account number: (Attach duplicate copy of this page if paying by deposit account)

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

DO NOT USE THIS SPACE

Name of Person Signing

Total number of pages including cover sheet, attachments, and document:

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Mail documents to be recorded with required cover sheet information to:

Commissioner of Patent & Trademarks, Box Assignments

Washington, D.C. 20231

Schedule 1

Trademark Applications

<u>Mark</u>	Serial No.
Neurovac	78/018, 443
Neurovax	78/018, 363
Ravac	78/018, 710
Ravax	78/018, 708
Zorcell	78/004, 228

NY-174373 v1 0950000-102

Schedule 2

Trademark Registratiaons

Mark Registration No.

Remune 2,464,045

INTELLECTUAL PROPERTY SECURITY AGREEMENT

INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Agreement"), dated as of November 9, 2001, by and between The Immune Response Corporation, a Delaware corporation (the "Borrower"), and Kevin Kimberlin Partners, L.P., a Delaware limited partnership (the "Lender").

WITNESSETH

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

WHEREAS, the Lender is willing to loan money to the Borrower as provided for in the Note Purchase Agreement, but only upon the condition, among others, that the Borrower shall have executed and delivered this Agreement, in order to secure the timely payment, performance and satisfaction of the obligations of the Borrower under the Notes, the Warrants, the Note Purchase Agreement and this Agreement (collectively, the "Obligations").

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

1. Defined Terms.

- (a) Capitalized terms used herein shall have the meanings ascribed to such terms in the Note Purchase Agreement unless 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) All terms defined in this Agreement in the singular shall have comparable meanings when used in the plural, and vice versa, unless otherwise specified herein.
- (d) Any reference to the word "Borrower" in Sections 4, 5, 6 and 9 hereof shall be deemed to include any affiliate or subsidiary of the Borrower.
- 2. <u>Incorporation of Premises</u>. The premises set forth above are incorporated into this Agreement by this reference thereto and are made a part hereof.

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- 3. <u>Incorporation of the Note Purchase Agreement</u>. The Note Purchase Agreement and the terms and provisions thereof are hereby incorporated herein in their entirety by this reference thereto.
- Grant of Security Interest in Trademarks. To secure the complete and timely payment, performance and satisfaction of all of the Obligations, the Borrower hereby grants to the Lender a 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 fullest extent permitted by applicable law, all of the Borrower's now owned or otherwise existing and hereafter acquired or arising: (i) trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications, including, without limitation, the trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications listed on Schedule 4.8 attached to the Note Purchase Agreement and made a part hereof ("Schedule 4.8"), 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 the Borrower's business symbolized by the foregoing and connected therewith and (e) all of the 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, are 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.
- Grant of Security Interest in Patents. To secure the complete and timely 5. payment, performance and satisfaction of all of the Obligations, the Borrower hereby grants to the Lender a security interest, as and by way of a first mortgage and security interest having priority over all other security interests, with power of sale to the fullest extent permitted by applicable law, in all of the Borrower's right, title and interest in and to the Borrower's now owned or otherwise existing and hereafter acquired or arising: (i) patents and patent applications, including, without limitation, the patents and patent applications listed on Schedule 4.8, and (a) all renewals, continuances and modifications 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, (c) the right to sue for past, present and future infringements, (d) the goodwill of the Borrower's business symbolized by the foregoing and connected therewith and (e) all of the Borrower's rights corresponding thereto throughout the world (all of the foregoing patents and patent applications, together with the items described in clauses (a)-(e) in this Section 5, are 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.

- Grant of Security Interest in Trademark and Patent Licenses. To secure the complete and timely payment, performance and satisfaction of all of the Obligations, the Borrower hereby grants to the Lender a security interest, as and by way of a first mortgage and security interest having priority over all other security interests, with power of sale to the fullest extent permitted by applicable law, in all of the Borrower's right, title and interest in and to the Borrower's now owned or otherwise existing and hereafter acquired or arising rights under or interest in any license agreements with any other party, whether the Borrower is a licensee or licensor under any such license agreement, including, without limitation, license agreements listed on Schedule 4.8, and the right to use the foregoing in connection with the enforcement of the Lender's rights under the Note Purchase Agreement, including, without limitation, the right to prepare for sale and sell any and all inventory now or hereafter owned by the 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 6, the Licenses shall not include any license agreement in effect as of the date hereof that by its terms expressly prohibits the grant of the security contemplated by this Agreement; provided, however, that upon the termination of such prohibitions for any reason whatsoever, the provisions of this Section 6 shall be deemed to apply thereto automatically.
- 7. Power and Authority. The Borrower has the requisite corporate power and authority to execute and deliver this Agreement and to perform its obligations hereunder. The execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of the Borrower. This Agreement has been duly executed and delivered by the Borrower and is the valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, moratorium, insolvency, reorganization or other similar laws now or hereafter in effect generally affecting the enforcement of creditors' rights, specific performance, injunctive or other equitable remedies.
- 8. <u>Title: Other Liens.</u> Except for the security interests granted to the Lender pursuant to this Agreement, the Borrower owns each of the Trademarks, Patents and Licenses free and clear of any and all liens, claims or security or adverse interests thereon. No security agreement, financing statement or other public notice with respect to all or any of the Trademarks, Patents and Licenses is on file or of record in any public office, except as such as have been filed in favor of the Lender pursuant to this Agreement and the Note Purchase Agreement.
- 9. <u>New Trademarks</u>, <u>Patents and Licenses</u>. The Borrower represents warrants that (a) the Trademarks listed on <u>Schedule 4.8</u> hereto include all of the trademarks, trade names, registered trademarks, trademark applications, service marks, registered service marks and service mark applications now owned or held by the Borrower, (b) the Patents listed on <u>Schedule 4.8</u> hereto include all of the patents and

patent applications now owned or held by the Borrower, (c) the Licenses listed on Schedule 4.8 hereto include all of the license agreements under which the Borrower is the licensee or licensor and (d) no liens, claims or security or adverse interests in such Trademarks, Patents or Licenses have been granted by the Borrower to any person or entity other than the Lender. If, prior to the termination of this Agreement, the 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 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 license agreements, whether as licensee or licensor, or license renewals or (iv) enter into any new or amended license agreement, the provisions of Sections 4, 5 and 6 above shall automatically apply thereto (to the extent permitted by licensors under agreements in connection with the granting of such licenses). The Borrower shall give to the Lender prompt written notice of events described in clauses (i), (ii), (iii) and (iv) of the preceding sentence, and in any event within thirty (30) days, after the occurrence thereof. The Borrower hereby authorizes the Lender to modify this Agreement unilaterally (i) by amending Schedule 4.8 hereto 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 9. (ii) by amending Schedule 4.8 hereto to include any future patents and patent applications, that are Patents under Section above or under this Section 9, (iii) by amending Schedule 4.8 hereto to include any future license agreements that are Licenses under Section 6 above or under this Section 9 and (iv) by filing, in addition to and not in substitution for this Agreement, a duplicate original of this Agreement containing on Schedule 4.8 thereto, as the case may be, such future trademarks, tradenames, registered trademarks, trademark applications, service marks, registered service marks and service mark applications and containing on Schedule 4.8 thereto, as the case may be, such future patents and patent applications and containing on Schedule 4.8 thereto, as the case may be, such future license agreements.

- agreement, including, without limitation, any license agreement, that is inconsistent with this Agreement or that would be reasonably likely to have a material adverse effect on the security interests held by the Lender pursuant to this Agreement, and the 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, that could be reasonably expected to, in any material respect, affect the validity or enforcement of the rights transferred to the Lender under this Agreement or the rights associated with the Trademarks, the Patents or the License.
- 11. <u>Royalties</u>. The Borrower hereby agrees that the use by the Lender of the Trademarks, Patents and Licenses as authorized hereunder in connection with the Lender's exercise of its rights and remedies under Section 20 hereof or pursuant to the

Note Purchase Agreement or any of the documents contemplated thereby (collectively, the "Loan Documents") shall be coextensive with the Borrower's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Lender to the Borrower.

- 12. Right to Inspect; Further Assignments and Security Interest; Future Indebtedness. The Lender may from time to time hereafter (at the Borrower's expense, but not more than once per calendar year absent an Event of Default or Nonpayment of Maintenance Fees (as defined in Section 14 hereof)) have access to, examine, audit, make copies and extracts from and inspect the Borrower's premises and examine the Borrower's books, records and operations relating to the Trademarks, Patents and Licenses. The Borrower agrees (i) not to sell or assign any of its interests in, or grant any license under the Trademarks or the Patents without the prior and express written consent of the Lender and/or (ii) not to sell or assign its respective interests in the Licenses without the prior and express written consent of the Lender. Without the prior and express written consent of the Lender, which consent shall not be unreasonably withheld, the Borrower hereby agrees that it shall not, while any of the Obligations are outstanding, incur, create or assume any indebtedness that is senior to the indebtedness evidenced by any of the Notes or grant any further security interest in the Trademarks, Patents and Licenses, and any modifications thereto pursuant to Section 9 hereof (the "Collateral"), even if such interest shall be junior to that of the Lender.
- 13. 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 and Licenses and shall terminate only when the Obligations have been paid or performed in full and the Note Purchase Agreement has been terminated in accordance with its terms. When this Agreement has terminated, the Lender shall promptly execute and deliver to the 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 and Licenses, subject to any disposition thereof that may have been made by the Lender pursuant to this Agreement.
- 14. <u>Duties of the Borrower</u>. The Borrower shall (a) 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) 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) take all reasonable and necessary action to preserve and maintain all of the Borrower's rights in the Trademarks, the Patents and the Licenses, including, without limitation, the commencement of legal action for any infringement thereof by a third party that materially impairs the value of the Collateral; <u>provided</u>, <u>however</u>, that the Borrower shall not be obligated to take any of the foregoing actions unless the failure to take such actions would be reasonably likely to have a material adverse effect on either (x) the business, operations or condition of the Borrower or (y) the security interests of the Lender held pursuant to this Agreement. The

Borrower further agrees (i) not to abandon any Trademark, Patent or License without the prior written consent of the Lender and (ii) to use its best efforts to maintain in full force and effect the Trademarks, Patents and Licenses, including, without limitation, the timely payment of any maintenance fees for the Patents and/or the Trademarks; provided, however, that the Borrower shall not be obligated to take any of the foregoing actions unless the failure to take such actions would be reasonably likely to have a material adverse effect on either (x) the business, operations or condition of the Borrower or (y) the security interests of the Lender held pursuant to this Agreement.. Any expenses incurred in connection with the foregoing shall be borne by the Borrower. The Lender shall not have any duty with respect to the Trademarks, the Patents or the Licenses. Without limiting the generality of the foregoing, the Lender shall not be under any obligation to take any steps necessary to preserve rights in the Trademarks, the Patents or the Licenses against any other parties, but the Lender may do so, at its option, (x) if the Lender does not receive written confirmation of the payment of maintenance fees for the Patents and/or the Trademarks at least twenty (20) days prior to the due date for such payments, in which event the Lender may pay such fees ("Nonpayment of Maintenance Fees") or (y) from and after the occurrence and during the continuance of an Event of Default, and all expenses incurred in connection with clauses (x) and (y) of this Section 14 (including, without limitation, reasonable fees and expenses, including legal fees, of the Lender) shall be for the sole account of the Borrower and shall be added to the Obligations secured hereby.

- Indemnification by the Borrower. The Borrower hereby agrees to 15. indemnify and hold harmless and pay or reimburse the Lender for any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements (including reasonable attorneys' fees) of any kind whatsoever that may be imposed on, incurred by or asserted against the Lender in connection with, or in any way arising out of, any suits, proceedings or other actions, relating to any or all of the Trademarks, the Patents or the Licenses (including, without limitation, whether brought by the 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, the Lender is judicially determined to have acted or failed to act with The indemnification provisions in this gross negligence or willful misconduct. Section 15 shall survive the termination of this Agreement.
- The Lender's Right to Sue. From and after the occurrence and during the continuance of an Event of Default, the Lender shall have the right, but shall not be obligated, to bring suit in its own name to enforce the Trademarks, the Patents and the Licenses and, if the Lender shall commence any such suit, the Borrower shall, at the request of the Lender, do any and all lawful acts and execute any and all proper

documents reasonably required by the Lender in aid of such enforcement. The Borrower shall, upon demand, promptly reimburse the Lender for all costs and expenses incurred by the Lender in the exercise of its rights under this Section 16 (including, without limitation, reasonable fees and expenses, including legal fees, of the Lender).

- 17. <u>Waivers</u>. The Lender's failure, at any time or times hereafter, to require strict performance by the Borrower of any provision of this Agreement shall not waive, affect or diminish any right of the Lender thereafter to demand strict compliance and performance therewith nor shall any course of dealing between the Borrower and the 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 the Borrower contained in this Agreement shall be deemed to have been suspended or waived by the Lender unless such suspension or waiver is in writing signed by an officer of the Lender and directed to the Borrower and specifying such suspension or waiver.
- 18. <u>Severability</u>. 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.
- 19. <u>Modification</u>. Neither this Agreement nor any provision hereof may be altered, amended or modified in any way, except as specifically provided in Section 9 hereof or in a written instrument signed by the parties hereto.

20. Power of Attorney; Cumulative Remedies.

The Borrower hereby irrevocably designates, constitutes and (a) appoints the Lender (and all officers and agents of the Lender designated by the Lender in its sole and absolute discretion) as the Borrower's true and lawful attorney-in-fact, and authorizes the Lender and any of the Lender's designees, in the Borrower's or the 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 the Borrower's name on all applications, documents, papers and instruments necessary or desirable for the Lender in the use of the Trademarks, the Patents or the Licenses, (ii) assign, pledge, convey or otherwise transfer title in or dispose of the Trademarks, the Patents or the Licenses to anyone, (iii) grant or issue any exclusive or nonexclusive license or sublicense under the Trademarks, the Patents or the Licenses to anyone and (iv) take any other actions with respect to the Trademarks, the Patents or the Licenses as the Lender deems in its best interest for the payment of the Obligations. The 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. The Borrower acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of the Lender under the Note Purchase Agreement or any of the other Loan Documents, but rather is intended to facilitate the exercise of such rights and remedies.

- The 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 ("UCC") as enacted in any jurisdiction in which the Trademarks, the Patents or the 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 remedies under Section 9-504 or Section 9-505 of the UCC, or the equivalent remedy provisions under revised Article 9 of the UCC, as enacted in the governing jurisdiction, with respect to the Trademarks, the Patents or the Licenses, the Borrower agrees to assign, convey and otherwise transfer title in and to the Trademarks, the Patents and the Licenses, to the Lender or any transferee of the Lender and to execute and deliver to the Lender or any such transferee all such agreements, documents and instruments as may be necessary, in the Lender's sole discretion, to effect such assignment, conveyance and transfer. All of the Lender's rights and remedies with respect to the Trademarks, the Patents and the Licenses, whether established hereby, by the Note Purchase 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, the Lender may exercise any of the rights and remedies provided in this Agreement, the Note Purchase Agreement or any of the other Loan Documents. To the extent permitted by applicable law, the Borrower agrees that any notification of intended disposition of any of the Trademarks, the Patents or the Licenses required by law shall be deemed reasonably and properly given if given at least ten (10) days, if such notice is given by facsimile or twelve (12) days, if such notice is given by mail, before such disposition; provided, however, that the Lender may give any shorter notice that is commercially reasonable under the circumstances.
- 21. <u>Successors and Assigns</u>. This Agreement shall be binding upon the Borrower and its successors and permitted assigns, and shall inure to the benefit of the Lender and its nominees, successors and assigns. The Borrower's successors and assigns shall include, without limitation, a receiver or a trustee of the Borrower; <u>provided</u>, <u>however</u>, that the Borrower shall not voluntarily assign or transfer its rights or obligations hereunder without the Lender's prior written consent.
- 22. Governing Law. This Agreement shall be construed in accordance with and governed by the internal laws of the State of New York applicable to agreements made and to be wholly performed in New York.
- 23. <u>Notices</u>. All notices or other communications hereunder shall be given in the manner and to the addresses set forth in the Note Purchase Agreement.

- 24. <u>Section Headings</u>. The section headings herein are for convenience of reference only, and shall not affect in any way the interpretation of any of the provisions hereof.
- 25. <u>Merger</u>. This Agreement, together with the other Loan Documents, represents the final agreement of the Borrower and the 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 the Borrower and the Lender.
- 26. <u>Effectiveness</u>. This Agreement shall become effective on the date of the Note Purchase Agreement.

[SIGNATURE PAGE FOLLOWS]

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

THE IMMUNE RESPONSE CORPORATION, a Delaware corporation

By:
Jame:
itle:
XEVIN KIMBERLIN PARTNERS, L.P., Delaware limited partnership
By:
Vame:
itle:

THE IMMUNE RESPONSE CORPORATION, a Delaware corporation

By:

Title:

KEVIN KIMBERLIN PARTNERS, L.P.,

a Delaware limited partnership Ry: KKD Menagermen LLC, General Partner

Name: Kevintamberlin

Title: Member Manager

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To-Kirkpatrick & Lockha

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PAGE 84

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

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SCHEDULE 4.18(a)

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DETECTION OF LYMPHOCYTE AMPLIFICATION	Family Name: ALBERTINI	Title											
Albertini, Richard J.		Inventor(s)											
88906441.6	88906441.6	88906441.6	88906441.6	63-506111	88906441.6	20830/88	86810	569,971	US88/02101	345882/96	07/337,400		Serial No.
6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	4/13/89		Filed
Switzerland	Switzerland	Belgium	Austria	Japan	European Patent Convention	Australia	israel	Canada	PCT	Japan	United States		Country
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12/22/93	12/22/93	12/22/93	12/22/93	4/11/97	12/22/93	2/18/92	5/23/93	8/4/92		2/27/98	5/12/92		
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1080	9892	9830	9791	9704	9611	9822	9821	9820	9819	9818	9817	9816
VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS	PEPTIDES AND METHODS AGAINST DIABETES	POPULATIONS PEPTIDES AND METHODS AGAINST PSORIASIS	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	VACCINATION AND METHODS AGAINST MULTIPLE SCLEROSIS RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION	DETECTION OF LYMPHOCYTE AMPLIFICATION
Howell, Mark D. Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Albertini, Richard J. Falta, Michael T. Brostoff, Steven W.	Carlo, Dennis J. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Smith, Lloyd M Wilson, Darcy	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.
08/276,776	08/195,963	08/182,967	08/146,454	08/103,418	08/055,006	88906441.6	88906441.6	88906441.6	88906441.6	88906441.6	88906441.6	88906441.6
7/18/94	2/14/94	1/14/94	11/1/93	8/6/93	4/29/93	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88	6/22/88
United States	United States	United States	United States	United States	United States	Sweden	Netherlands/ Holland	Luxembourg	Italy	Great Britain	France	Germany
CONT of 9107	CIP of 8854	CIP of 9107	CONT of 9464	CONT of 9447	CIP of 8666	NATL of 8422	NATL of 8422	NATL of 8422	NATL of 8422	NATL of 8422	NATL of 8422	NATL of 8422
Patent Issued/Granted	Patent Issued/Granted	Pending	Patent Issued/Granted	Patent Issued/Granted	Pending	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
						Patent Issued	Patent Issued	Patent Issued	Patent Issued		Patent Issued	Patent Issued
RC	Univ. of Vermont Exclusively Licensed to IRC	IRC	RC	RC	IRC and Darcy Wilson	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC
6,207,645	6,113,903		5,861,164	5,612,035		0,321,554	0321554	0,321,554	0,321,554	0,321,554	0,321,554	0,321,554
3/27/01	9/5/00		1/19/99	3/18/97		12/22/93	12/22/93	12/22/93	12/22/93	12/22/93	12/22/93	12/22/93
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Li Respons £L Corporati bL	Reservation 1 Property	RENT LESS FF	Immune Res KAME Cor Ratio	Immune Response 830

3285	2430	1134	1641	1640	1639	1638	1634	1631	1629	1254	1197	1148
BY SPECIFIC T CELL POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS	VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	BY SPECIFIC T CELL POPULATIONS COMPOSITION FOR PREVENTING OR TREATING A T CELL MEDIATED TREATING A T CELL MEDIATED	VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	BY SPECIFIC T CELL POPULATIONS METHOD OF PREVENTING THE PROLIFERATION OF VBETA14 OR VBETA17-EXPRESSING T CELLS	BY SPECIFIC T CELL POPULATIONS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	PEPTIDES AND METHODS AGAINST PSORIASIS	BY SPECIFIC T CELL POPULATIONS PEPTIDES AND METHODS AGAINST DIABETES	BY SPECIFIC T CELL POPULATIONS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	BY SPECIFIC T CELL POPULATIONS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	BY SPECIFIC T CELL POPULATIONS ANTI-IDIOTYPE VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES	VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES
Howell, Mark D. Brostoff, Steven W. Carlo, Dennis J.	Howell, Mark D. Brostoff, Steven W. Carlo, Dennis J.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Howell, Mark D. Brostoff, Steven W. Carlo, Dennis J.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Albertini, Richard J. Falta, Michael T. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Howell, Mark D. Brostoff, Steven W. Carlo, Dennis J.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.
90905821.6	9791236-4	68926/94	08/472,040	08/471,209	08/466,860	08/471,987	08/462,471	08/464,140	08/464,506	08/376,049	08/332,428	08/302,102
3/21/90	3/21/90	3/21/90	6/6/95	6/6/95	6/6/95	6/6/95	6/5/95	6/5/95	6/5/95	1/20/95	10/31/94	9/7/94
Singapore	Singapore	Australia	United States	United States	United States	United States	United States	United States	United States	United States	United States	United States
NATL of 8824	NATL of 8824	DIV of 9040	CONT of 1080	DIV of 1080	DIV of 1080	DIV of1080	CONT of 9830	CONT of 9892	DIV of 1254	CONT of 9477	CONT of 9556	CONT of 9328
Patent Issued/Granted	Patent lssued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	pending	pending	pending	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Pending
Granted	POA due 2/17/97; POA filed 2/7/97; Granted;											
IRC	RC	IRC	IRC	IRC	IRC	RC	IRC	Univ. of Vermont Exclusively Licensed to IRC	IRC	IRC	IRC	IRC
9791236.4	9791236-4	672313	6,090,387	6,221,352 B1	5,985,552				6,159,470	5,837,246	6,007,815	
	8/28/97	10/14/99	7/18/00	4/24/01	11/16/99				12/12/00	11/17/98	12/28/99	
Immune Response Corporation	Immune Response Corporation	immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune E Respons P Corporation	Response 002	ADEM 422 FI	AREAME	Immune Response 31

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9839	9838	9837	9836	9835	9048	9047	9044	9043	9042	9040	8824	8677
POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS	VACCINATION AGAINST DISEASES VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	VACCINATION AGAINST DISEASES VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL
Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.
90905821-6	90905821-6	90905821-6	90905821-6	90905821-6	5001756.14	701170/91	P-91-99	914432	2,046,909-9	53567/90	90905821-6	90/01516
3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90
Denmark	Germany	Switzerland	Belgium	Austria	Soviet Union	South Korea	North Korea	Finland	Canada	Australia	European Patent Convention	РСТ
NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8677	NATL of 8677	NATL of 8824	NATL of 8677	NATL of 8677	NATL of 8677	PCT of 8379
Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Pending	Patent Issued/Granted	Pending	Pending	Patent Issued/Granted	Pending	National Stage
Patent Issued	Patent Issued	Patent Issued	Patent Issued	Patent Issued								National Stage
IRC	RC	IRC	RC	IRC	IRC	IRC	IRC	IRC	IRC	IRC	IRC	RC
0,463,101	0,463,101	0,463,101	0,463,101	0,463,101	2138512		26745			648753	0,463,101	
1/12/94	1/12/94	1/12/94	1/12/94	1/12/94	9/27/99		10/21/93			5/5/94	1/12/94	
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Respons	Response 002	2422 F	_ <u>=</u> _xx	Immune Response 832 Corporation

9673	9671	9180	2331	1941	8676	9846	9845	9844	9843	9842	9841	9840
VACCINATION AND METHODS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL POPULATIONS	VACCINATION AND METHODS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SDECIEC TOTAL BODBLI ATTOMS	POPULATION AND METHODS VACCUNATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SECTION TOTAL BODIL ATTOMS	BY SPECIFIC CELL POPULATIONS Vaccination and Methods Against Diseases Resulting from Pathogenic Responses by Specific T Cell	POPULATIONS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES PX SDECIFIC TOTAL POPULATIONS	VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	POPULATIONS VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL	VACCINATION AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SPECIFIC T CELL
Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.
4-505397	2,101,065	US92/00482	70327/96	95250317.5	20013	90905821-6	90905821-6	90905821-6	90905821-6	90905821-6	90905821-6	90905821
1/21/92	1/21/92	1/21/92	1/21/92	1/21/92	3/22/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90	3/21/90
Japan	Canada	РСТ	Australia	European Patent Convention	Mexico	Sweden	Netherlands/ Holland	Luxembourg	Italy	Great Britain	France	Spain
NATL of 9180	NATL of 9180	PCT of 8854	DIV of 9670	DIV of 9672	NATL of 8677	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824	NATL of 8824
Pending	Pending	National Stage	Patent Issued/Granted	pending	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
						Patent Issued	Patent Issued	Patent issued	Patent Issued	Patent Issued	Patent Issued	Patent Issued
RC	IRC	IRC	RC	RC	RC	IRC	IRC	IRC	IRC	IRC	IRC	IRC
			694062		190785	0,463,101	0,463,101	0,463,101	0,463,101	0,463,101	0,463,101	0,463,101
			11/5/98		12/16/98	1/12/94	1/12/94	1/12/94	1/12/94	1/12/94	1/12/94	1/12/94
Immune Response Corporation	Immune Response Corporation	immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Response Corporation	Responsible Corporation	A DEM / 4 22 FF	Correction Research	Respons 3

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2155	2154	2153	2152	2151	2150	2149	2148	2147	2145	1294	2607	9455	9674
PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS	Vaccination Against Diseases Resulting From Pathogenic Responses By Specific T Cell Populations	VACCINATION AND METHODS VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES BY SEFCIFIC TOTAL EXPONENTS	VACCINATION AND METHODS AGAINST DISEASES RESULTING FROM PATHOGENIC RESPONSES RY SPECIFIC TOELL DOOL ATIONS			
Carlo, Dennis J.	Carlo, Dennis J.	Carlo, Dennis J.	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J.	Carlo, Dennis J.	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J.	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J. Brostoff, Steven W. Howell, Mark D.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.	Carlo, Dennis J. Howell, Mark D. Brostoff, Steven W.
962943	96 02473	703791/1996	96-0577	7-519192	962836	95909258.6	95 1 91213.5	2,179,280	17282/95	95/00658	1101119	US92/11159	932631
1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	8/6/93	12/21/92	1/21/92
Norway	Mexico	South Korea	North Korea	Japan	Finland	European Patent Convention	China	Canada	Australia	PCT	Brazil	PCT	Norway
NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	NATL of 1294	PCT of 9830	NATL of 9704	PCT of 9107	NATL of 9180
pending	pending	pending	Patent Issued/Granted	Pending	pending	pending	Pending	Pending	Patent Issued/Granted	National Stage	Pending	National Stage	Pending
RC	RC	IRC	IRC	IRC	RC	RC	RC	RC	RC	RC	IRC	RC	IRC
			31431						697910				
			1/22/98						2/4/99				
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune L Respon st L Corpora R	Reference Corporation	CORP. M. (1984) 1984 1984 1984 1984 1984 1984 1984 1984	ARK ARK RAME:	Immune 44 Response 6834 Corporate 683

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10277/7009 WO	10277/7009	I0277/7007 WO	10277/7007	i0277/7004 WO	10277/7004	Family Name:	2215	2212	2211	2210	1360	4621	2156
METHODS AND PRODUCTS FOR MANIPULATING UNCOUPLING PROTEIN EXPRESSION IN THE	METHODS AND PRODUCTS FOR MANIPULATING UNCOUPLING PROTEIN EXPRESSION IN THE PI ASMA MEMBRANE	USE OF CD40 ENGAGEMENT ON T LYMPHOCYTES OR THYMOCYTES TO ALTER T CELL RECEPTOR USAGE	USE OF CD40 ENGAGEMENT TO ALTER T CELL RECEPTOR USAGE	METHODS AND PRODUCTS RELATED TO METABOLIC INTERACTIONS IN DISEASE	METHODS AND PRODUCTS RELATED TO METABOLIC INTERACTIONS IN DISEASE	Name: Newell	Peptides and Methods Against Diabetes	PEPTIDES AND METHODS AGAINST PSORIASIS	PEPTIDES AND METHODS AGAINST PSORIASIS				
							Albertini, Richard J. Falta, Michael T.	Carlo, Dennis J. Brostoff, Steven W. Chang, Jennie	Carlo, Dennis J.				
PCT/ US00/17245	09/599,760	PCT/ US99/30930	09/470,494	US99/06874	09/277,575		704434/1996	95911631.0-23	2,182,978	19128/95	US95/01572	2001-55930	279987
06/22/00	06/22/00	12/22/99	12/22/99	03/29/99	03/29/99		2/10/95	2/10/95	2/10/95	2/10/95	2/10/95	1/13/95	1/13/95
PCT	United States	PCT	United States	PCT	United States		South Korea	European Patent Convention	Canada	Australia	PCT	Japan	New
claiming priority to Provisional I0277/7008	claiming priority to Provisional 10277/7008	claiming priority to Provisional 10277/7005	claiming priority to Provisional 10277/7005	claiming priority to Provisional 10277/7000 and 10277/7001	claiming priority to Provisional 10277/7000 and 10277/7001		NATL of 1360	NATL of 1360	NATL of 1360	NATL of 1360	PCT of 9892	DIV of 2151	NATL of 1294
Pending	Pending	Pending	Pending	Pending	Pending		Patent Issued/Granted	Pending	pending	Patent Lapsed	National Stage	Pending	Patent Issued/Granted
Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC		Univ. of Vermont Exclusively Licensed to IRC	Univ. of Verment Exclusively Licensed to IRC	IRC	IRC			
							10-280220			690234			279987
							11/8/00			8/6/98			4/20/00
							Immune Response Corporation	Immune Response Corporation	Immune L. Respons eL Corpora (44)	0 RAI 1 RAI 0 0 2 4 2		Immune Research	Immune 5 Respons 5 Corporat 7

PLASMA MEMBRANE

3904	3903	3902	3149	4735	3394	Family Name: 2442 Membran Composit Modulatir	10277/7013	10277/7012	10277/7011 WO	10277/7011
Using Same Membrane-Bound Cytokine Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response Using Same	Using same Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response	Using same Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response	Using Same Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response	Using Same Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response	Using Same Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response	Name: Fusion Protein Cytokines Membrane-Bound Cytokine Soo Hoo, William Compositions and Methods of Modulating an immune Response	METHODS FOR REGULATING CO- STIMULATORY MOLECULE EXPRESSION WITH REACTIVE OXYGEN	METHODS AND PRODUCTS RELATED TO METABOLIC	AUTOLOGOUS ADOPTIVE IMMUNOTHERAPY WITH ANTIGEN- SPECIFIC PRIMED T CELLS OR B CELLS TO PROMOTE ANTIGEN- SPECIFIC IMMUNE RESPONSES WITH AN APPROPRIATE CYTOKINE	AUTOLOGOUS ADOPTIVE IMMUNOTHERAPY WITH ANTIGEN- SPECIFIC PRIMED T CELLS OR B CELLS TO PROMOTE ANTIGEN- SPECIFIC IMMUNE RESPONSES WITH AN APPROPRIATE CYTOKINE
Soo Hoo, William	Soo Hoo, William	Soo Hoo, William	Soo Hoo, William	Soo Hoo, William	Soo Hoo, William	Cytokines Soo Hoo, William				
98937204.0	2,297,747	85971/98	PCT/US98/1562 2	09/847,185	09/201,931	08/902,516	Not yet assigned	09/711,022	PCT/ US00/16752	09/596,387
7/27/98	7/27/98	7/27/98	7/27/98	5/1/01	12/1/98	7/29/97	10/14/01	11/09/00	06/16/00	06/16/00
European Patent Convention	Canada	Australia	PCT	United States	United States	United States	United States	United States	PCT	United States
NATL of 3149	NATL of 3149	NATL of 3149	PCT of 2442	CONT of 3394	CONT of 2442	NEW of		Divisional of 10277/7004	claiming priority to Provisional I0277/7010	daiming priority to Provisional 10277/7010
Pending	Pending	Pending	National Stage	Pending	Pending	Patent issued/Granted	Pending Provisional	Pending	Pending	Pending
RC	RC	IRC	RC	IRC	IRC	RC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC
						5,891,432				
						4/6/99				

Immune Response Corporation

Immune Response Corporation Immune Response Corporation Immune Response Corporation Immune Response Corporation Immune Response Corporation Immune Response Corporation

4997	4996	4995	4994	4993	4992	4991	4990	4939	4030	Fami 4029	4644	3905
HIV IMMUNOGENIC COMPOSITIONS AND METHODS	HIV Immunogenic Compositions and Methods	Family Name: HIV WITH ISS 4029 HIV Immunogenic Compositions and Methods	Membrane-Bound Cytokine Membrane-Bound Cytokine Compositions and Methods of Modulating an immune Response Using Same	Membrane-Bound Cytokine Compositions and Methods of Modulating an Immune Response								
Moss, Ronald B	Moss, Ronald B	Soo Hoo, William	Soo Hoo, William									
						00932163.9		49929/00	PCT/US00/1249	09/565,906	00107768.5	2000-505285
5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	5/5/00	7/27/98	7/27/98
Industrial Property Org.) India	ARIPO (African Regional	OAPI (African Union)	South Africa	Brazil	Mexico	European Patent Convention	Canada	Australia	РСТ	United States	Hong Kong	Japan
NATL of 4030	PCT of 3528 PCT of 3693	B OF of 3528 B OF of 3693	NATL of 3149	NATL of 3149								
Pending	National Stage	Pending	Pending	Pending								
RC	RC	RC	IRC	IRC	RC	RC	RC	IRC	RC		IRC	IRC

Immune Response Corporation

2254	2253		1455	2531	Family	4999	4998
Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles		HIGHLY EFFICIENT PRODUCTION AND ISOLATION OF VIRAL PARTICLES	Highly Efficient Production and Isolation of Viral Particles Utilizing Tentacle Anion Exchange	Family Name: HRINDA PRODUCTION AND PURIFICATION RETROVIRAL PARTICLES USING OF TENTACLE ANION EXCHANGE	HIV IMMUNOGENIC COMPOSITIONS AND METHODS	HIV IMMUNOGENIC COMPOSITIONS AND METHODS
Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Hrinda, Michael E. Bay, Pierre M. Gore, Richard S. Harter, James J. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M.	Harter, James J. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M.	Harrer, James J Hrinda, Michael E. Bay, Pierre M. Gore, Richard S.	Harter, James J. Prior, Christopher P. Weber, David M. Gore, Richard S.	Prior, Christopher P. Weber, David M. Gore, Richard S.	Moss, Ronald B	Moss, Ronald B
95914170.6	2,186,034		US95/03668	08/842,702	08/613,920		
3/22/95	3/22/95		3/22/95	4/15/97	3/11/96	5/5/00	5/5/00
European Patent Convention	Canada		PCT	United States	United States	Costa Rica	Singapore
NATL of 1465	NATE of 1465		PCT of 1461	CONT of 1963	CONT of 1461	NATL of 4030	NATL of 4030
Patent Issued/Granted	Pending		National	Patent Issued/Granted	Patent Issued/Granted	Pending	Pending
ਨ	₹. ₹.	į	IRC	IRC	IRC	RC	IRC
0/5				6,080,571	5,661,023		
7900				6/27/00	8/26/97		
Immune Response Corporation	Immune Response Corporation		Immune Response Corporation	Respons	© Republication	MARAME:	Immune Response 838

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40<u>6</u>2 2255 4065 ∂63 4062 4066 Immune Response Corporation of Viral Particles Highly Efficient Production and Isolation Highly Efficient Production and Isolation of Viral Particles Highly Efficient Production and Isolation Highly Efficient Production and Isolation Highly Efficient Production and Isolation of Viral Particles of Viral Particles of Viral Particles Highly Efficient Production and Isolation of Viral Particles Harter, James J. Hrinda, Michael E. Bay, Pierre M. Gore, Richard S. Tarr, George C. Weber, David M. Weber, David M. Bay, Pierre M. Tarr, George C. Weber, David M. Gore, Richard S. Harter, James J. Harter, James J. Harter, James J. Gore, Richard S. Harter, James J. Bay, Pierre M. Prior, Christopher P. Irish, Thomas W. Hrinda, Michael E. Bay, Pierre M. Prior, Christopher P. Irish, Thomas W. Harter, James J. Prior, Christopher P. Irish, Thomas W. Hrinda, Michael E. Bay, Pierre M. Mitschelen, Jonathan J. Prior, Christopher P. Mitschelen, Jonathan J. Hrinda, Michael E. Gore, Richard S. Mitschelen, Jonathan J. Hrinda, Michael E. Weber, David M. Irish, Thomas W. Hrinda, Michael E. Mitschelen, Jonathan J. Gore, Richard S. Weber, David M. Irish, Thomas W. Prior, Christopher P. Irish, Thomas W. Tarr, George C. Vitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Гап, George C. Vitschelen, Jonathan J. 95914170.6 95914170.6 95914170.6 7-524824 95914170.6 95914170.6 3/22/95 3/22/95 3/22/95 3/22/95 3/22/95 3/22/95 Japan Belgium Austria Denmark Germany Switzerland NATL of 1465 NATL of 2254 Patent Pending Patent Patent Issued/Granted Patent Patent Issued/Granted Issued/Granted Issued/Granted Issued/Granted 공 굥 공 RC RC 공 E189697 0751988 0751988 0751988 0751988 2/9/00 2/9/00 2/9/00 2/9/00 2/9/00 TRADEMARK Corporation Response Immune Response Corporation Corporation Response mmune mmune Response Corporation Response Immune Corporation

Weber, David M. Bay, Pierre M. Gore, Richard S.

Tarr, George C.

4072	4071	4070	4069	4068	4067
Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles
Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Gore, Nichard S. Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Piere M. Bay, Piere M.	Harter, James J. Hinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Piere M. Bay, Piere M. Bay, Piere M.	Gore, Richard S. Harter, James J. Harnda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Bay, Pierre M.	Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M.
95914170.6	95914170.6	95914170.6	95914170.6	95914170.6	95914170.6
3/22/95	3/22/95	3/22/95	3/22/95	3/22/95	3/22/95
laly	Ireland	Greece	United Kingdom	France	Spain
NATL of 2254	NATL of 2254	NATL of 2254	NATL of 2254	NATL of 2254	NATL of 2254
Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent ssued/Granted	Patent Issued/Granted
Ā	i R	IRC	RC	RC	RC
0001570	0751988	3033268	0751988	0751988	0751988
7300	2/9/00	2/9/00	2/9/00	2/9/00	2/9/00
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	TRADEI REEL: 002422	MARK Copporation Response Resp

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Family 9713	4077	4076	4075	4074	4073
Family Name: Lymphocytes 9713 METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles	Highly Efficient Production and Isolation of Viral Particles
Albertini, Richard J.	Gore, Richard S. Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonalhan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M.	Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Gote, richaid 3. Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Gore, Richard S.	Harter, James J. Hrinda, Michael E. Irish, Thomas W. Mitschelen, Jonathan J. Prior, Christopher P. Tarr, George C. Weber, David M. Bay, Pierre M. Bay, Pierre M.
08/182,416	95914170.6	95914170.6	95914170.6	95914170.6	95914170.6
1/14/94	3/22/95	3/22/95	3/22/95	3/22/95	3/22/95
United	Sweden	Portugal	Netherlands/ Holland	Monaco	Luxembourg
NEW of	NATL of 2254	NATL of 2254	NATL of 2254	NATL of 2254	NATL of 2254
Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
Univ. of Vermont Exclusively Licensed to IRC	Ri C	RC	ਨ	RC	RC
5,482,837	0751988	0751988	0/51988	0751988	0751988
1/9/96	2/9/00	2/9/00	2/9/00	2/9/00	2/9/00
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	TRADE REEL: 002422	MARK Corporate Corporate FRAME: 6841

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2657	2656	2655	2654	2653	2652	2651	2650	2649	2648	2125	2124	2123	1295
METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES	METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES	METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES	METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES	METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES									
Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.	Albertini, Richard J.									
95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	7-519120	95907407.1	2,179,281	95/00434
1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95
Ireland	Greece	United Kingdom	France	Spain	Denmark	Germany	Switzerland	Belgium	Austria	Japan	European Patent Convention	Canada	PCT
NATL of 1295	NATL of 1295	NATL of 1295	NATL of 1295	PCT of 9713									
Patent Issued/Granted	Pending	Patent Issued/Granted	Pending	National Stage									
Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC	Univ. of Vermont Exclusively Licensed to IRC									
0739418	0 739 418	0 739 418	0 739 418	0 739 418	0 739 418	69500393.3	0 739 418	0 739 418	AT E 154 949		0 739 418		
7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97		7/2/97		
Immune Response Corporation	Immune L Respons e L Corporati e	Restance Corporation	Regulation	Confession Resident AME	Immune Response 842								

1679	1676	1675	1625	9953	9436	Family	4580	Family	2697	2662	2661	2660	2659	2658
PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	RETROVIRAL ANTIGENS	Family Name: SALK CARLO	METHODS FOR TREATING HIV- INFECTED INDIVIDUALS	Family Name: Remune/STI	METHODS OF IDENTIFYING LYMPHOCYTES WITH MUTATOR PHENOTYPES					
Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas		Moss, Ronald B. Carlo, Dennis J.		Albertini, Richard J.					
08/469,739	08/464,137	08/467,302	08/467,334	08/233,508	07/975,899		60/264,476		95907407.1	95907407.1	95907407.1	95907407.1	95907407.1	95907407.1
6/5/95	6/5/95	6/5/95	6/5/95	04/26/94	11/10/920		01/26/01		1/13/95	1/13/95	1/13/95	1/13/95	1/13/95	1/13/95
United States	United States	United States	United States	United States	United States		United States		Monaco	Sweden	Portugal	Netherlands/ Holland	Luxembourg	Italy
DIV of 9953	DIV of 9953	DIV of 9953	CONT of 9953	CONT of 9745	CONT of 8051				NATL of 1295					
Patent Issued/ Granted	Patent Issued/ Granted	Patent Issued/ Granted	Patent Issued/ Granted	Patent Issued/ Granted	Patent Issued/ Granted		Pending		Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
IRC	IRC	IRC	IRC	IRC	IRC		RC		Univ. of Vermont Exclusively Licensed to IRC					
5,885,578	5,928,930	6,017,543	5,895,650	5,853,725	5,256,767				0 739 418	0 739 418	0 739 418	0 739 418	0 739 418	0 739 418
3/23/99	7/27/99	1/25/00	4/20/99	12/29/98	10/26/93				7/2/97	7/2/97	7/16/97	7/2/97	7/2/97	7/2/97
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation		Immune Response Corporation		Immune Response Corporation	Responsit	Real Marks 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Immune Resident Contraction	Immune Response 43

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8332	832	0221		1492		1490	100	1480	1480	1400	1485	4109	1680
PREVENTION AND TREATMENT OF RETROVIRAL DISEASE (PREVENTIVE AND THERAPEUTIC AGENT FOR THE TREATMENT OF ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS))	RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE								
Carlo, Dennis J. Saik, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Cario, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Salk, Jonas	Salk, Jonas	Cano, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J.	Carlo, Dennis J. Salk, Jonas
569,026	US88/01955	88906347.5	88906347.5	88906347.5	88906347.5	88906347.5	88905347.5	88906347.5	88906347.5	88906347.5	88906347.5	09/545,966 Salk, Jonas	08/464,139
6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	4/10/00	6/5/95
Canada	PCT	Sweden	Netherlands/ Holland	Luxembourg	laly	Great Britain	France	Germany	Switzerland	Belgium	Austria	United States	United States
NATL	PCT	F	NATL	NATL		읔	NATL of 84	NATL of 84	NATL of 84	NATL of 84	NATL of 84	CONT of 1678	DIV of 9953
of 8331	of 8301	of 8414	of 8414	of 8414	of 8414	8414			8414		8414	1678)5 ₃
Patent Issued/Granted	National Stage	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Pending	Patent Issued/ Granted
IRC	RC	RC	RC	RC	RC	IRC	IRC	RC	RC	IRC	IRC	IRC	IRC
1,336,407		0 317 622	EP 0 317 622		EP 0 317 622	EP 0 317 622	0 317 622	P 38 54 857.7-08	0 317 622	0 317 622	EP 0 317 622		5,916,806
7/25/95		1/3/96	1/3/96	1/3/96	1/3/96	1/3/96	1/3/96	1/3/96	1/3/96	1/3/96	1/3/96		
Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune E Response E Corporation	Response 002	Res EM A 22 FI	Res AME	Immune 844

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9388			909					2 4 3 3	8415	8414	8413	8411	8333
RETROVIRAL DISEASE	RETROVIRAL DISEASE	ANTI-IDIOTYPE ANTIBODIES	AN IBODIES REACTIVE WITH ONE OR MORE RETROVIRAL PROTEINS AND PHARMACEUTICAL COMPOSITIONS CONTAINING THE SAME	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE
Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas			
5052305	4613460.27	104,340	104,337	4613460.14	US88/01955	59525	89/0565	63-505484	89-0603	88906347.5	563/89	19626/88	86675
5/14/92	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88	6/9/88
Soviet Union	Belarus	Israel	Israel	Soviet Union	Sudan	OAPI (African Union)	Norway	Japan	Finland	European Patent Convention	Denmark	Australia	Israel
DIV	\$	DIV	DIV	NATL	NATL	NATL	NATL	NATL	NATL	NATL	NATL		NATL
of 8420	of 8420	of 8331	of 8331	of 8331	of 8331	of 8331	of 8331	of 8331	of 8331	of 8331	of 8331		of 8331
Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Pending		Patent Issued/Granted
IRC	IRC	IRC	RC	IRC	IRC	IRC	IRC	IRC	RC	IRC	IRC	IRC	IRC
2 111 010	1253	104,340	104,337	1,837,890	PCT/SD/21 8	9037	175.846	1985173	95871	1/3/96		612383	86675
5/20/98	7/23/93	9/25/94	8/31/94	10/13/82	9/10/98	3/31/91	12/21/94	10/25/95	4/10/96	0 317 622		11/28/91	7/5/93
immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response	Corporation: 002	422 FI	Reg Imp	Response 0845

3969	3969	4106	3963	3967	Family 5034	Family 2406	9682	9686	9511	9510	2606	9688
T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	TCR V BETA 5 PEPTIDES	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	Family Name: Vandenbark 5034 T CELL RECEPTOR PEPTIDES AS THERAPEUTICS FOR IMMUNE- RELATED DISEASE	Family Name: TCR Combinations 2406 Combinations of TCR Peptides For Carto, Inhibiting T Cell Mediated Diseases Howel	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	A METHOD FOR THE EXTRACORPOREAL REMOVAL OF ANTIBODIES	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE	Retroviral Antigens	PREVENTION AND TREATMENT OF RETROVIRAL DISEASE
Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	lions Carlo, Dennis J. Brostoff, Steven W. Howell, Mark D.	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas	Carlo, Dennis J. Salk, Jonas
US92/04492	US92/04492	08/476,405	08/476,552	08/059,020			96240071	453	104,339	104,338	1101124	93 004 572
6/1/92	6/1/92	6/7/95	6/6/95	3/16/93			4/13/94	7/2/93	1/7/93	1/7/93	11/10/92	5/14/92
РСТ	РСТ	United States	United States	United States	United States	United States	Ukraine	Belarus	Israel	Israel	Brazil	Ukraine
PCT	PCT	읔	DIV	CONT	읔	d NEW	DIV	EXT	DIV	DIV	NATL	EXT
of PCT of 3968	of 3968	of 3967	of 3967	of 3968	of 3963	of Propose	of 8420	of 8420	of 8331	of 8331	of 9436	of 9385
National Stage	Stage National	Patent Issued/Granted	Pending	Patent Issued/Granted	Proposed		Pending	Pending	Patent Issued/Granted	Patent Issued/Granted	Pending	Patent Issued/Granted
RC		RC	RC	RC	RC	RC	RC	IRC	RC	IRC	IRC	IRC
		5,776,459			5,614,192				104,339	104,338		27716
		7/7/98			3/25/97				4/25/95	2/28/96		10/16/00
immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	mmune L	6 242		Immune E	Immune 6 Response 46 Corporate 18

Immune Respons Corporat	1/20/00	U38/7/35	RC	Patent issued/Granted	of 3972	NATL	United Kingdom	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4091
Immune Respons Corporat	1/20/00	000//00	. R	Patent Issued/Granted	of 3972	NATL	France	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4090
Immune Respons Corporat	1/26/00	0507775		Patent Issued/Granted	of 3972	NATL	Spain	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4089
Immune Respons Corporat	1/26/00	DE6923061 2 T2	IRC	Patent Issued/Granted	of 3972	NATL	Germany	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4088
Immune Respons Corporal	00/92/1	0587735	IRC	Patent Issued/Granted	of 3972	NATL	Denmark	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4087
Immune Respons Corporal	1/26/00	0587735	IRC	Patent Issued/Granted	of 3972	NATL	Switzerland	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4086
Immune Respons Corporat	1/26/00	058//35	RC	Patent Issued/Granted	of 3972	NATL	Belgium	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4085
Immune Respons Corporal	1/26/00	058/735	ZC C	Patent Issued/Granted	of 3972	NATL	Austria	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4084
Immune Respons Corporal	2000	304042	Z.C	Patent Issued/Granted	of 3970	DIV	South Korea	6/1/92	10-2000-70021	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	4034
Respondi Corpo			i ZC	Pending	of 3969	NATL	Norway	6/1/92	P934320	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	3976
Copora Co	16/07/0	6/4,494	, R	Patent Issued/Granted	of 3969	NATL	Australia	6/1/92	21,472/92	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	3975
ADE		!	RC	Pending	of 3969	NATL	Canada	6/1/92	2,110,055	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	. 3974
ARRIE RAM			RC	Pending	of 3969	NATL	Japan	6/1/92	500563/93	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	, 3973
Respo 684	1/26/00	0587735	RO	Patent Issued/Granted	of 3969	NATL	European Patent Convention	6/1/92	92912864.3	Vandenbark, Arthur A.	T Cell Receptor Peptides as Therapeutics for immune-Related Disease	, 3972
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3987	3986	3984	3983	3982	3981	3980	3979	3978	Family Name: 3978 T Cell Re Therapes Disease	4095	4094	4093	4092
T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	Name: Vandenbark-2 T Cell Receptor Peptides as Therapeutics for Immune-Related Disease	T Cell Receptor Peptides as Therapeutics for Immune-Related Disease			
Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.									
95125	234586	92-700152	2,064,077-4	P920252	510609/90	60,485/90	90911332.6	US90/04085	US90/04085	92912684.3	92912684.3	92912684.3	92912684.3
7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	7/19/90	6/1/92	6/1/92	6/1/92	6/1/92
Israel	New Zealand	South Korea	Canada	Norway	Japan	Australia	European Patent Convention	PCT	PCT	Sweden	Netherlands/ Holland	Italy	Greece
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Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Pending	Pending	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	National Stage	National Stage	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
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95125	234586	216097			3072330	652,540	0552142			0587735	0587735	0587735	0587735
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Family Name: 4734 Methods Disease-	4261	4260	4259	4258	4257	4256	4255	4254	4253	4252	4251	4250
Name: Vandenbark-3 Methods of Identifying and Monitoring Disease-Associated T Cells	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease	T Cell Receptor Peptides as Therapeutics for Autoimmune and Malignant Disease
Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.	Vandenbark, Arthur A.
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United States	Sweden	Netherlands/ Holland	Luxembourg	Italy	Great Britain	France	Spain	Denmark	Germany	Switzerland	Belgium	Austria
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Pending	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
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Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune Response Corporation	Immune	Co Re RAI Brail 0242	DEMA 22 FR	Immune Research	Immune 9 Response 49 Corporati

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Client: Sidney-Kimmel Cancer Center (SKCC)

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CANCER IMMUNOTHERAPY WITH CARRIER CELLS	Family Name: IMMUNOTHERAPY	Family Name: HAPLOTYPE HAPLOTYPE-MATCHED CYTOKINE SECRETING CELLS AND METHODS OF USING TO STIMULATE IMMUNE RESPONSE AGAINST A TUMOR LOCATED IN THE CENTRAL NERVOUS SYSTEM OF A PATIENT	Compositions and Methods For Enhanced Tumor Cell Immunity In Vivo	Compositions and Methods For Enhanced Tumor Cell Immunity In Vivo	Compositions and Methods For Enhanced Tumor Cell Immunity In Vivo	IMMUNITY IN VIVO Compositions and Methods For Enhanced Tumor Cell Immunity In Vivo	COMPOSITIONS AND METHODS FOR ENHANCED TUMOR CELL	Compositions and Methods for Enhanced Tumor Cell Immunity In Vivo	Compositions and Methods for Enhanced Tumor Cell Immunity In Vivo	Family Name: FAKHRAI 1032 COMPOSITIONS AND METHODS FOR ENHANCED TUMOR CELL IMMUNITY IN VIVO
Gage, Fred H. Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Friedmann, Theodore	APY Friedmann, Theodore Royston, Ivor K. Sobol, Robert E.	Fakhrai, Habib Royston, Ivor K Sobol, Robert E.	Fakhrai, Habib Dorigo, Oliver Sobol, Robert E.	Fakhrai, Habib Dorigo, Oliver Sobol, Robert E.	Fakhrai, Habib Dorigo, Oliver Sobol, Robert E.	Sobol, Robert E. Fakhrai, Habib Dorigo, Oliver Sobol Robert F	Fakhrai, Habib Dorigo, Oliver	Sobol, Robert F. Sobol Robert F.	Fakhrai, Habib Dorigo, Oliver	Fakhrai, Habib Dorigo, Oliver Sobol, Robert E.
08/473,123		US94/10217	8-505265	95928099.1	2,195,334	32178/95	US95/09198	09/516,737	08/968,986	08/276,694
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United States	United States	РСТ	Japan	European Patent Convention	Canada	Australia	PCT	United States	United States	United States
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Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Friedmann, Theodore Fakhrai, Habib	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Gage, Tred Theodore	Finedmann, Ineodore Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Gage, Fred Theodore	Fnedmann, I neodore Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Fiddmann Theodore	Finedmann, I neodore Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Friedmann, Theodore Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Sobol, Robert E. Royston, Ivor K. Gage, Fred H.
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Friedmann, Theodore Gage, Fred H. Royston, Ivor K. Sobol, Robert E.	Friedmann, Theodore Gage, Fred H. Royston, Ivor K. Sobol Robert F	Friedmann, Theodore Gage, Fred H. Royston, Ivor K. Sobol, Robert E.	raknral, Habib Friedmann, Theodore Gage, Fred H. Royston, Ivor K. Sobol, Robert E.	Filedmann, Incodore Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Friedmann, Theodore	Friedmann, Incodore Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H.	Fakhrai, Habib Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Friedmann, Theodore	Sobol, Robert E. Royston, Ivor K. Gage, Fred H. Friedmann, Theodore
5-507903	92922731.2	2,121,127	PCT/US92/0899 9	92922731.2	92922731.2	92922731.2	92922731.2	92922731.2	92922731.2
10/23/92	10/23/92	10/23/92	10/23/92	10/23/92	10/23/92	10/23/92	10/23/92	10/23/92	10/23/92
Japan	European Patent Convention	Canada	PCT	Great Britain	Netherlands/ Holland	Denmark	Monaco	France	Sweden
NATL	NATL	NATL	PCT	NATL	NATL	NATL	NATL	NATL	NATL
of 9437	of 9437	of 9437	of 9117	of 9946	of 9946	of 9946	of 9946	of 9946	of 9946
Pending	Patent Issued/Granted	Pending	National Stage	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted	Patent Issued/Granted
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Combined Radiotherapy and Immunotherapy to Treat Cancer	Combined Radiotherapy and Immunotherapy to Treat	TUMOR RADIOSENSITIZATION USING GENE THERAPY	TUMOR RADIOSENSITIZATION USING GENE THERAPY			
McBride, William H.	McBride, William H.	McBride, William H.	McBride, William H.	McBride, William H.	McBride, William H.	McBride, William H.
99104559.7	9-527808	97904085,4	2,244,841	US97/01465	09/535,654	08/597,524
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Client: Sidney-Kimmel Cancer Center

	4582				4581	Family
Vaccines	Genetically			Vaccines	Genetically	Name:
c	Genetically Engineered Tumor Cell				Genetically Engineered Tumor Cell	Family Name: TUMOR CELL VACCINE
2	Gold, Daniel P. Soboi, Robert E.	Carlo, Dennis J.	Bartholomew, Richard M.	Shawler, Daniel	Sobol, Robert E.	VACCINE
	PCT/US01/0273				09/772,102	
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Novel Vectors and Genes Exhibiting Increased Expression	Novel Vectors and Genes Exhibiting Increased Expression	Targeted Delivery Of Genes Encoding Interferon	Targeted Delivery Of Genes Encoding Interferon	Method Of Preparing Polynucleotide-Carrier Complexes For Delivery To Cells	Use Of Viral Cis-Acting Post-Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites	Antisense Constructs Directed Against Viral Post-Transcriptional Regulatory Sequences	Soluble Molecular Complex For The Introduction Of Genes Into Mammalian Cells	Carrier System and Method for the Introduction of Genes Into Mammalian Cells	Carrier System and Method for the Introduction of Genes Into Mammalian Cells	Title Targeted Delivery of Poly- or Oligonucleotides to Cells
04/20/00	12/04/98	08/23/99	3/17/97 05/30/00	2/2/196 1.1730/99	3/11/96 4/28/98	3/11/96 12/01/98	07/31/96 02/23/99	01/04/95 06/03/97	04/02/90. 11/24/92	Filing/Issue Date 06/02/95 02/29/00
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Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Targeted Delivery of Genes Encoding Immunogenic Proteins	Title Targeted Delivery of Genes Encoding Immunogenic Proteins
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EPO	Canada		3904	Europe	Canada	So. Korea	EPO	Sweden
I.R.C.	IR.C.		U.of CT Licensed to RC	TargeTech and U. of CT	TargeTech and U. of CT	Licensed to IRC TargeTech Licensed to IRC	U. of CT Licensed to IRC	U. of CT and TargeTech Licensed to IRC
97 90 8930.7 Publ. No. 0888451	2,248,539	20717/97 Patent No. 715567	23633/88 Patent No. 2731844	94 91 2389.7 0693130	2159916	(PCT)700741/94 252547 2752547 07-518699 Publ. No. 9-510696	92 92 0863.5 Publ. No. 0666923	92 91 3964.0 Patent No. 0584279
Use Of Viral Cis-Acting Post- Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites	Use Of Viral Cis-Acting Post- Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites	Use Of Viral CIs-Acting Post- Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites	Carrier System and Method for the Introduction of Genes Into Mammalian Cells	Targeted Delivery of Genes Encoding Antisense Polyribonucleotides	Targeted Delivery of Genes Encoding Antisense Polyribonucleotides	Targeted Delivery of Poly- or Oligonucleotides to Cells Hepatocyte-Targeted Drug Conjugates	Targeted Delivery of Poly- or Oligonucleotides to Cells	Targeted Delivery of Genes Encoding Immunogenic Proteins
03/10/97 01/07/99	03/10/97	03/10/97 05/18/00		09/28/95 01/24/96	10/4/95	09/04/92 01/19/00 01/11/95 01/11/95 Publ. Date: 10/28/97	09/04/92 Publ. Date 08/16/95	05/14/92
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Hong Kong	Europe	Canada	Australia	Japan	Hong Kong	Europe	Australia	Japan	Hong Kong
I.R.C.	I.R.C.	I.R.C.	I.R.C.	I.R.C.	I.R.C.	I.R.C.		I.R.C.	I.R.C.
01 10 1652.6	98 96 0546.4 1036177	2,312,291	16121/99 Publ. No.:	09-532785	99104212.6	97 91 5916.7 Publ. No. 0904373	23223/97 Patent No	09-532696	99102022.0
Novel Vectors and Genes Exhibiting Increased Expression	Novel Vectors and Genes Exhibiting Increased Expression	Novel Vectors and Genes Exhibiting Increased Expression	Novel Vectors and Genes Exhibiting Increased Expression	Targeted Delivery Of Genes Encoding Interferon	Targeted Delivery Of Genes Encoding Interferon	Targeted Delivery Of Genes Encoding Interferon	Targeted Delivery Of Genes Encoding Interferon Targeted Delivery Of Genes Encoding Interferon	Use Of Viral Cis-Acting Post- Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites	Use Of Viral Cis-Acting Post- Transcriptional Regulatory Sequences Containing Near-Consensus Splice Sites
03/07/01	11/25/98 09/20/00	11/25/98	11/25/98 Publ. Date:	03/14/97	9/28/99	03/14/97 Publ. Date 03/31/99	03/14/97 Pa 04/19/01 Pa 03/14/97 Per	03/10/97	03/10/97
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Pending	02/16/01	Methods and Compositions for Gene Delivery	PCT/US01/05234	I.R.C.	PCT	TTI-200PC
Pending	11/25/98	Novel Vectors and Genes Exhibiting Increased Expression	524420/00	I.R.C.	Japan	TTI-180JP

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Immune Response Corporation

TRADEMARKS

ř **REMUNE - Worldwide Registrations and Pending Applications**

REMUNE

Country: Argentina

Goods: Pharmaceuticals for the treatment of HIV, in Class 5.

April 14, 1998

App. No.: App. Date: Status: N2.144.733 Pending. Application opposed by Laboratorios Poen S.A.C.I.F.I., Laboratorios Elea S.A.C.I.F.A., and Renome S.A. Immune Response has executed Settlement Agreements with the opposing parties.

Certificate of Registration will issue in due course.

12 REMUNE

Country: Australia

Pharmaceuticals for the treatment of HIV being goods in Class 5.

April 8, 1998

Reg. Date: Reg. No.759257

Status: Registered April 8, 1998; Renewal due April 8, 2008

çب REMUNE

Country:Brazil

Goods: Pharmaceuticals for the treatment of HIV, in Class 5.

July 6, 1998

App. Date: Reg. No.: Status:

Registered November 7, 2000. A Certificate of Registration will issue in due course.

4, REMUNE

Country: Canada

Goods: Pharmaceuticals for the treatment of HIV.

App. Date: April 15, 1998

App. No.:

10562710v7

Status: Pending. Foreign Trademark office requires a Certified copy of the U.S. Registration by January 24, 2002 or an additional extension.

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REMUNE

Country: CTM - European Union

Goods:

Drug for treatment of HIV, in Class 5.

Reg. Date: Reg. No.: April 1, 1996 480590

Status: Registered August 8, 1999; Renewal due April 1, 2006.

REMUNE

6

Country:Japan

Goods: Pharmaceuticals for the treatment of HIV, and other

pharmaceuticals, in Class 5.

April 8, 1998 4283555

App. Date: Reg. No.:

Status: Registered June 11, 1999; Renewal due June 11, 2009.

REMUNE

.7

Country:Mexico
Goods:

Pharmaceuticals for the treatment of HIV, in Class 5.

App. Date: Reg. No.: April 15, 1998

Status: Registered June 30, 1998; Renewal due April 15, 2008.

REMUNE

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Country: New Zealand Goods: Pharr

Pharmaceuticals for the treatment of HIV, in Class 5.

August 10, 1998 296345

App. Date: Reg. No.:

Status: Registered; Renewal due August 10, 2005.

> **TRADEMARK REEL: 002422 FRAME: 0860**

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REMUNE

Country: Thailand

ods: Pharmaceutical for the treatment of HIV, in Class 5.

App. Date: September 9, 1998 Reg. No.: Kor91338

Status: Registered May 11, 1999; Renewal due September 8, 2008

10. REMUNE

Country: United States

Goods: Pharmaceutical preparations for use in the treatment of HIV, in Class 5.

Reg. Date: June 26, 2001 Reg. No.: 2,464,045

tatus: Registered; Declaration of Use due June 26, 2007.

Pending U.S. Applications

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. NEUROVAC

Goods: Pharmaceutical preparations for the treatment of multiple sclerosis, in Class 5.

Ref No.: 042040-0263110

App. Date: July 26, 2000 App. No.: 78-018,443

Status: Published for Opposition on March 27, 2001; Awaiting Notice of Allowance.

NEUROVAX

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Goods: Pharmaceutical preparations for the treatment of multiple sclerosis, in Class 5.

Ref No.: 042040-0263109

App. Date: July 25, 2000 App. No.: 78-018,363

Status: Published for Opposition on March 20, 2001; Extension of Time to file opposition filed against mark on April 11, 2001; Opposition proceeding instituted on August 1, 2001 and is currently pending.

TRADEMARK REEL: 002422 FRAME: 0861

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RAVAC

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Goods: Pharmaceutical preparations namely a rheumatoid arthritis vaccine, in Class 5.

Ref No.: 042040-0263118

App. Date: App. No.: July 27, 2000 78-018,710

Status: Published for Opposition on May 22, 2001; Extension of Time to file opposition filed against mark on June 14, 2001.

regard to this matter.

4-RAVAX

Goods: Pharmaceutical preparations namely a rheumatoid arthritis vaccine, in Class 5.

Ref No.: 042040-0263118

App. Date: App. No.: 78-018,708 July 27, 2000

Allowed: September 4, 2001

Status: Notice of Allowance Issued; Statement of Use/First Request for Extension of Time due March 4, 2001.

نح **ZORCELL**

Goods: Pharmaceutical, namely, a drug for the treatment of psoriasis, in Class 5.

Ref No.: 042040-0260801

App. No.: App. Date: April 14, 2000 78-004,228

Status: Published for Opposition on December 5, 2001; Extension of Time to file opposition filed against mark on January 4, 2001.

Please note that due to conflicts of interest, we cannot advise you with TRATOEMARK 002422 FRAME **REEL: 002422 FRAME: 0862**