

Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

## RECORDATION FORM COVER SHEET

## PATENTS ONLY

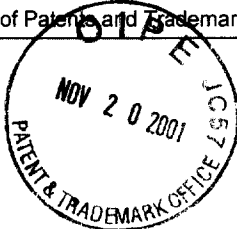


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Tab settings ⇌ ⇌ ⇌ ▼ ▼ ▼ ▼ ▼ ▼

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

11-20-01  
INTRACEL CORPORATION

2. Name and address of receiving party(ies)

Name: PEG INTRACEL LENDING CO. LLC

Internal Address: c/o Pegasus Investors

Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

- ☐ Assignment ☐ Merger  
☒ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Street Address: 99 River Road

City: Cos Cob State: CT Zip: 06807-254

Execution Date: November 15, 2001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

08/540,298

B. Patent No.(s)

5,484,596

Additional numbers attached? ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Noel D. Humphreys

Internal Address: \_\_\_\_\_

Aking, Gump, Strauss, Hauer &amp; Feld, LLP

Street Address: 590 Madison Avenue

Suite 1800

City: New York State: NY Zip: 10022

6. Total number of applications and patents involved: 53

7. Total fee (37 CFR 3.41).....\$ 2,120.00

- ☐ Enclosed  
☒ Authorized to be charged to deposit account

8. Deposit account number:

50-1972

(Attach duplicate copy of this page if paying by deposit account)

## DO NOT USE THIS SPACE

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.

Noel D. Humphreys

Name of Person Signing

Signature

11-19-01

Date

11/23/2001 DBYRNE 00000049 501972 08540298

Total number of pages including cover sheet, attachments, and documents: 14

01 FC:581

2120.00 CH

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

Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

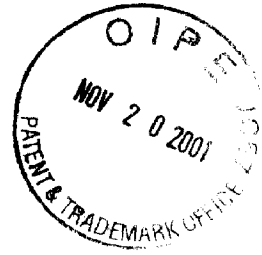
**Question No. 1:**

INTRACEL NETHERLANDS, B.V., a Netherlands Corporation

HUMAN ANTIBODY SCIENCES, INC., a Delaware Corporation

PERIMMUNE, INC., a Delaware Corporation

PERIMMUNE HOLDINGS, INC., a Delaware Corporation



**Question No. 4:**

**PATENTS ISSUED**

**OncoVAX**

Active Specific Immunotherapy	5,484,596
Tumor Associated Monoclonal Antibody	5,348,880
	5,474,755
Tumor Specific Monoclonal Antibodies	4,828,991
	4,997,762
	5,106,738
	5,180,814
CTAA 28A32, The Antigen Recognized by MCA 28A32	5,521,285
Tumor Associated Monoclonal Antibody 123AV16	5,495,002
In vitro method for producing antigen-specific human monoclonal antibodies	5,229,275
Imaging Infectious Foci With Human IgM 16-88	5,840,272

**KLH**

Method of Treating Bladder Cancer with a Keyhole	5,407,912
Limpet Hernocyanin Composition with Enhanced Anti-Tumor Activity	5,855,919
	5,981,476

**Leukoregulin**

Leukoregulin, An Antitumor Lymphokine, and its Therapeutic Uses	5,082,657
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**Human Antibody Science**

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In Vivo Binding Pair Pretargeting	5,807,534
	5,578,289
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Tumor Associated Epitopes	5,951,985
Antigen Recognized by MCA 16-88	5,338,832
Technetium-99m Labeling of Proteins	5,317,091
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Radial flow assay, delivering member, test kit and methods	5,547,833
Detection reagent article, and immunoassay method	5,561,045
Immunoreactive peptides of APO(A)	5,708,138
Immunoreactive peptides of APO(A)	5,786,156
Immunoreactive peptides of APO(A)	5,597,908

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Chelating agent for attaching metal ions to proteins	5,292,868
CTAA 81AV78, the antigen recognized by human monoclonal antibody 81AV78	5,595,738
CTAA 81AV78, the antigen recognized by human monoclonal antibody 81AV78	5,488,126
Alignment system to overlay abdominal computer-aided tomography and magnetic resonance anatomy with single photon enhanced tomography	5,299,253
Urethral catheter and catheterization process	5,120,316
Leukoregulin, an antitumor lymphokine, and its therapeutic uses	4,849,506

## PATENTS APPLIED FOR

### OncoVAX

Active Specific Immunotherapy	08/540,298
Monoclonal antibody 88BV59	08/341469

### KLH

Method of Treating Bladder Cancer with a Keyhole Limpet Hemocyanin Composition with Enhanced Anti-Tumor Activity	08/343,808
Tumor Associated Epitopes	08/478,591
Polymer Affinity Systems For the Delivery of Cytotoxic Materials and Other Compounds to Site of Disease	08/937,558
Site Specific In Vivo Activation of Therapeutic Drugs	08/382,469

### In Vitro Diagnostics

Neutralizing Monoclonal Antibodies to Respiratory Syncytial Virus	09/043,522
Human Monoclonal Antibodies Specific for Activated CD4 Antigen, Polynucleotides Encoding the Antibodies, and Methods of Use Thereof	09/225,647
Human Monoclonal Antibodies and Derived Mimetics to Human CD20 Antigen	60/258,504
Chelator and Method for Purifying Chelator Conjugated Compounds	08/278,721

# PATENT SECURITY AGREEMENT

(Patents, Patent Applications and Patent Licenses)

WHEREAS, Intracel Corporation, a Delaware corporation ("Intracel-Delaware"), and Intracel Netherlands B.V., a Netherlands corporation ("Intracel-Netherlands") are the borrowers under that certain Secured Super-Priority Debtor in Possession Credit Agreement dated as of October 31, 2001 (the "Credit Agreement"); and

WHEREAS, Human Antibody Sciences, Inc. ("HASI"), PerImmune Holdings, Inc. ("PH"), and PerImmune, Inc. (PerImmune"), each a Delaware corporation, have agreed to guarantee the obligations of Intracel-Delaware and Intracel-Netherlands under the Credit Agreement; and

WHEREAS, Intracel-Delaware, Intracel-Netherlands, HASI, PH, and PerImmune are collectively referred to in this Patent Security Agreement as the "Lien Grantor"; and

WHEREAS, in (i) the Credit Agreement, and (ii) certain other collateral documents (including this Patent Security Agreement), the Lien Grantor has granted and/or is granting to PEG Intracel Lending Co. LLC (the "Grantee") for Grantee's benefit a continuing security interest in personal property of the Lien Grantor, including all right, title and interest of the Lien Grantor in, to and under the Patent Collateral (as defined below), to secure the Lien Grantor's Obligations (as defined in the Credit Agreement);

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Lien Grantor grants to the Grantee, to secure the Lien Grantor's Obligations (as defined in the Credit Agreement), a continuing security interest in all of the Lien Grantor's right, title and interest in, to and under the following (all of the following items or types of property being herein collectively referred to as the "Patent Collateral"), whether now owned or existing or hereafter acquired or arising:

a) each Patent (as defined in the Credit Agreement) owned by the Lien Grantor, including, without limitation, each Patent referred to in Schedule 1 hereto;

b) each Patent License (as defined in the Credit Agreement) to which the Lien Grantor is a party, including, without limitation, each Patent License identified in Schedule 1 hereto; and

c) all proceeds of and revenues from the foregoing, including, without limitation, all proceeds of and revenues from any claim by the Lien Grantor against third parties for past, present or future infringement of any Patent owned by the Lien Grantor (including, without limitation, any Patent License identified in Schedule 1 hereto).

The Lien Grantor irrevocably constitutes and appoints the Grantee and any officer or agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full

power and authority in the name of the Lien Grantor or in the Grantee's name, from time to time, in the Grantee's discretion, to take with respect to the Patent Collateral any and all appropriate action that the Lien Grantor might take with respect to the Patent Collateral and to execute any and all documents and instruments that may be necessary or desirable to carry out the terms of this Patent Security Agreement and to accomplish the purposes hereof.

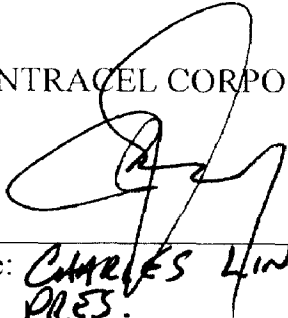
Except to the extent expressly permitted in the Credit Agreement, the Lien Grantor agrees not to sell, license, exchange, assign or otherwise transfer or dispose of, or grant any rights with respect to, or mortgage or otherwise encumber, any of the Patent Collateral.

The foregoing security interest is granted in conjunction with the security interests granted by the Lien Grantor to the Grantee pursuant to the Credit Agreement. The Lien Grantor acknowledges and affirms that the rights and remedies of the Grantee with respect to the security interest in the Patent Collateral granted hereby are more fully set forth in the Credit Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

**[Signature pages follow]**

IN WITNESS WHEREOF, the Lien Grantor has caused this Patent Security Agreement to be duly executed by its officer thereunto duly authorized as of the 12<sup>th</sup> day of November, 2001.

INTRACEL CORPORATION

By:   
Name: CHARLES LINDSAY  
Title: PRES.

Acknowledged:

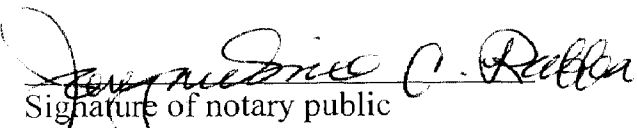
By: \_\_\_\_\_  
Name:  
Title: Secretary

STATE OF CONNECTICUT )  
COUNTY OF FAIRFIELD ) ss:

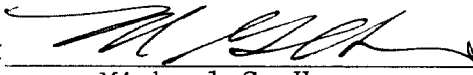
I, \_\_\_\_\_, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY, that CHARLES LINDSAY, [ ] of Intracel Corporation (the "Company"), personally known to me to be the same person whose name is subscribed to the foregoing instrument as such [ ], appeared before me this day in person and acknowledged that he signed, executed and delivered the said instrument as his own free and voluntary act and as the free and voluntary act of said Company, for the uses and purposes therein set forth being duly authorized so to do.

GIVEN under my hand and Notarial Seal this 12<sup>th</sup> day of November, 2001.

[Seal]

  
Signature of notary public  
My Commission expires \_\_\_\_\_


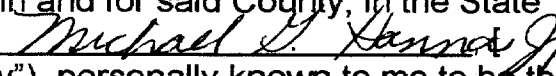
Notary Public  
Commission Expires  
[Signature] Patent Security Agreement  
July 3, 2004  
Lic # 70153

By:   
Name: Michael G. Hanna  
Title: Managing Director

Acknowledged:

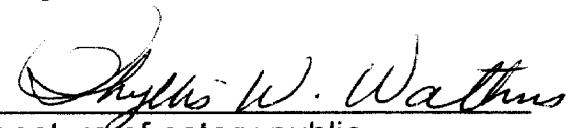
By: \_\_\_\_\_  
Name:  
Title: Secretary

STATE OF Maryland )  
 ) ss:  
COUNTY OF Montgomery )

I,  a Notary Public in and for said County, in the State  
aforesaid, DO HEREBY CERTIFY, that  of  
Intracel Netherlands B.V. (the "Company"), personally known to me to be the  
same person whose name is subscribed to the foregoing instrument as such  
[ ], appeared before me this day in person and acknowledged that he signed,  
executed and delivered the said instrument as his own free and voluntary act and  
as the free and voluntary act of said Company, for the uses and purposes therein  
set forth being duly authorized so to do.

GIVEN under my hand and Notarial Seal this 15 day of November,  
2001.

[Seal]

  
Signature of notary public  
My Commission expires May 1, 2003 My Commission Expires

[Signature page to Patent Security Agreement]



By: *[Signature]*  
Name: *Peter R. Nanni*  
Title: *CEO*

Acknowledged:

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Secretary

STATE OF *Maryland* )  
COUNTY OF *Montgomery* ) ss: )


I, *Phyllis W. Wathrus*, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY, that *Peter R. Nanni*, [ ] of Human Antibody Sciences, Inc. (the "Company"), personally known to me to be the same person whose name is subscribed to the foregoing instrument as such [ ], appeared before me this day in person and acknowledged that he signed, executed and delivered the said instrument as his own free and voluntary act and as the free and voluntary act of said Company, for the uses and purposes therein set forth being duly authorized so to do.

GIVEN under my hand and Notarial Seal this *13* day of November, 2001.

[Seal]

*Phyllis W. Wathrus*  
Signature of notary public My Commission Expires  
My Commission expires *May 1, 2003*



[Signature page to Patent Security Agreement]

By:   
Name: Michael G. Hanna  
Title: Chairman

Acknowledged:

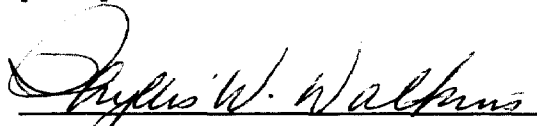
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Secretary

STATE OF Maryland )  
COUNTY OF Montgomery ) ss: \_\_\_\_\_ )

 Notary Public in and for said County, in the State  
aforesaid, DO HEREBY CERTIFY, that  ] of  
PerImmune Holdings, Inc. (the "Company"), personally known to me to be the  
same person whose name is subscribed to the foregoing instrument as such  
[ ], appeared before me this day in person and acknowledged that he signed,  
executed and delivered the said instrument as his own free and voluntary act and  
as the free and voluntary act of said Company, for the uses and purposes therein  
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2001.

[Seal]



Signature of notary public  
My Commission expires May 1, 2003

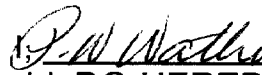
[Signature page to Patent Security Agreement]

By:   
Name: Michael G. Hanna  
Title: Chairman

Acknowledged:

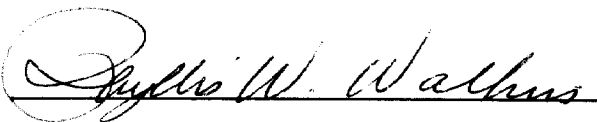
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Secretary

STATE OF Maryland )  
COUNTY OF Montgomery ) ss: )

 a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY, that Michael G. Hanna ] of PerImmune, Inc. (the "Company"), personally known to me to be the same person whose name is subscribed to the foregoing instrument as such [ ], appeared before me this day in person and acknowledged that he signed, executed and delivered the said instrument as his own free and voluntary act and as the free and voluntary act of said Company, for the uses and purposes therein set forth being duly authorized so to do.

GIVEN under my hand and Notarial Seal this 15 day of November, 2001.

[Seal]



Signature of notary public  
My Commission expires May 1, 2003

[Signature page to Patent Security Agreement]

INTRACEL CORPORATION  
INTRACEL NETHERLANDS B.V.  
HUMAN ANTIBODY SCIENCES, INC.  
PERIMMUNE HOLDINGS, INC.  
PERIMMUNE, INC.  
PATENTS

PATENTS AND DESIGN PATENTS

**United States of America**

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## PATENT APPLICATIONS

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Chelator and Method for Purifying Chelator Conjugated Compounds	08/278,721	US	Pending

AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P.

AUSTIN  
BRUSSELS  
DALLAS  
DENVER  
HOUSTON  
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WASHINGTON, D.C.



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FAX (212) 872-1002  
www.akingump.com

DIRECT DIAL NUMBER 212-872-1016  
E-MAIL ADDRESS nhumphreys@akingump.com

RIYADH (AFFILIATE)

November 19, 2001

**Via Express Mail**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Re: Recordation of Patent Security Agreement

Ladies and Gentlemen:

We enclose herewith the following documents to be recorded in the Patent and Trademark Office: One cover sheet and one Patent Security Agreement.

You are hereby authorized to deduct \$2,120.00 from the Deposit Account # 50-1972 to cover the fee for recording the above referenced patent security agreement in respect of the 41 issued patents and 12 patent applications listed or referred to in the Patent Security Agreement.

If you have any questions, please do not hesitate to contact me directly at 212-872-1016.

Very truly yours,

A handwritten signature in black ink, appearing to read "Noel D. Humphreys".

Noel D. Humphreys

Enclosures

cc: Mr. Vivek Mehta  
Richard Cox, Esq.

EK753527495US

RECORDED: 11/20/2001

PATENT  
REEL: 012273 FRAME: 0279