

07-13-1998



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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

HEET

Attorney Docket
No.: 9855-8 (TJU 1082)

MRD
629-94

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

1. Name of conveying party(ies):

Darwin J. Prockop
Leena Ala-Kokko
Charlene J. Williams
Pertti Ritvaniemi
Clinton Baldwin
Ian Hopkinson

2. Name and address of receiving party(ies):

Thomas Jefferson University
11th and Walnut Streets
Philadelphia, PA 19107

3. Nature of conveyance:

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other:

Execution Date: 11/13/97; 11/20/97; 12/29/97; 1/31/98; and
4/30/98

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: n/a

A. Patent Application No.(s): 08/256,426
(Filed February 3, 1995)

B. Patent No.(s):

Additional numbers attached? ☐ Yes ☐ No

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

Gary D. Colby, Ph.D., J.D.
PANITCH SCHWARZE JACOBS & NADEL, P.C.
One Commerce Square - 2005 Market Street - 22nd Fl.
Philadelphia, PA 19103-7086
Telephone: (215) 567-2020
Facsimile: (215) 567-2991
E-Mail: gdc@psjn.com
Direct Dial: 215-965-1285

6. Total number of applications and patents involved: [1]

E

7. Total fee (37 CFR 3.41) Cal. 1 x \$40.00 = \$ 40.00

☐ Enclosed
☒ Authorized to be charged to deposit account

8. Deposit account number: 16-0235

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 original document.

Gary D. Colby, Ph.D., J.D.
Name of Person Signing

Signature

June 26, 1998
Date

Total number of pages including cover sheet, attachments and document: [18]

08/256-426

160235

08/00051

11/08/11

07/13/1998

40.00 CH

01 FC 561

ASSIGNMENT

WHEREAS, we, **Darwin J. Prockop**, a citizen of the United States, with a post office address of 291 Locust Street, Philadelphia, PA 19108, **Leena Ala-Kokko**, a citizen of Finland, with a post address of 317A High Road, Salem Harbour, Andalusia, PA 19020, **Charlene J. Williams**, a citizen of the United States, with a post office address of 46 Long Bow Drive, Sewell, NJ 08080, **Pertti Ritvaniemi**, a citizen of Finland, with a post office address of Torpantatu 21 A 8, 90230 Oulu, Finland, **Clinton Baldwin**, a citizen of the United States, with a post office address of 57 Trowbridge Street, Cambridge, MA 02138 and **Ian Hopkinson**, a citizen of the United Kingdom, with a post office address of 9 Vennwood Close, Wenvoe, Cardiff, United Kingdom, hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

METHODS OF DETECTING A GENETIC PREDISPOSITION FOR OSTEOARTHRITIS

for which we have executed a United States patent application, Application No.08/256,426, filed February 3, 1995, and

ASSIGNORS authorize ASSIGNEE or ASSIGNEE's representative to insert the Application Number and Filing date of this application if they are unknown at the time of execution of this Assignment.

WHEREAS, **Thomas Jefferson University**, a not-for-profit corporation organized and existing under the laws of the Commonwealth of Pennsylvania, having its principal place of business at 11th and Walnut Streets, Philadelphia, PA 19107, hereinafter generally referred to as "ASSIGNEE", is desirous of acquiring said invention and said patent application.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged and intending to be legally bound hereby, we, the undersigned ASSIGNORS, hereby agree to sell, assign, transfer and convey and by these presents do sell, assign, transfer and convey unto the above-named ASSIGNEE, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-

provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNORS.

Nov. 13, 1997
(Date)

Nov. 13, 1997
(Date)

Nov. 20, 1997
(Date)

(Date)

(Date)

(Date)

Darwin J. Puckop (Seal)
Darwin J. Puckop

Leena Ala-Kokko (Seal)
Leena Ala-Kokko

Charlene J. Williams (Seal)
Charlene J. Williams

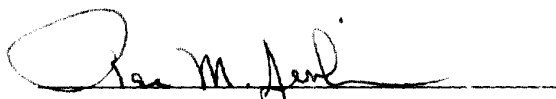
(Seal)
Pertti Ritvaniemi

(Seal)
Clinton Baldwin

(Seal)
Ian Hopkinson

STATE OF Pennsylvania :
 : SS.
COUNTY OF Philadelphia :

Before me, a notary public in and for the State and County aforesaid, on this 13th day of November, 1997, personally appeared **Darwin J. Prockop**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.


Notary Public

My Commission Expires:

Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF _____ :
 : SS.
COUNTRY OF Finland :

Before me, a notary public in and for the State and County aforesaid, on this 13th day of November, 1997, personally appeared **Leena Ala-Kokko**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.


Notary Public

My Commission Expires:

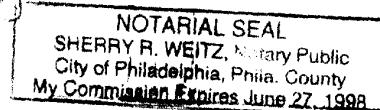
Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF Pennsylvania :
: SS.
COUNTY OF Philadelphia :

Before me, a notary public in and for the State and County aforesaid, on this 20 day of November, 1997, personally appeared **Charlene J. Williams**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Sherry R. Weitz
Notary Public

My Commission Expires:



STATE OF _____ :
: SS.
COUNTRY OF Finland _____ :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Pertti Ritvaniemi**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

STATE OF _____ :
: SS.
COUNTY OF _____ :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Clinton Baldwin**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

STATE OF _____ :
: SS.
COUNTRY OF United Kingdom _____ :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Ian Hopkinson**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

ASSIGNMENT

WHEREAS, we, **Darwin J. Prockop**, a citizen of the United States, with a post office address of 291 Locust Street, Philadelphia, PA 19108, **Leena Ala-Kokko**, a citizen of Finland, with a post address of 517A High Road, Salem Harbour, Andalusia, PA 19020, **Charlene J. Williams**, a citizen of the United States, with a post office address of 46 Long Bow Drive, Sewell, NJ 08080, **Pertti Ritvaniemi**, a citizen of Finland, with a post office address of Torpantatu 21 A 8, 90230 Oulu, Finland, **Clinton Baldwin**, a citizen of the United States, with a post office address of 37 Trowbridge Street, Cambridge, MA 02138 and **Ian Hopkinson**, a citizen of the United Kingdom, with a post office address of 9 Vennwood Close, Wenvoe, Cardiff, United Kingdom, hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

**METHODS OF DETECTING A GENETIC PREDISPOSITION FOR
OSTEOARTHRITIS**

for which we have executed a United States patent application, Application No.08/256,426, filed February 3, 1995, and

ASSIGNORS authorize ASSIGNEE or ASSIGNEE's representative to insert the Application Number and Filing date of this application if they are unknown at the time of execution of this Assignment.

WHEREAS, **Thomas Jefferson University**, a not-for-profit corporation organized and existing under the laws of the Commonwealth of Pennsylvania, having its principal place of business at 11th and Walnut Streets, Philadelphia, PA 19107, hereinafter generally referred to as "ASSIGNEE", is desirous of acquiring said invention and said patent application.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged and intending to be legally bound hereby, we, the undersigned ASSIGNORS, hereby agree to sell, assign, transfer and convey and by these presents do sell, assign, transfer and convey unto the above-named ASSIGNEE, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-

provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNORS.

Nov. 13, 1997
(Date)

Nov. 13, 1997
(Date)

Nov. 20, 1997
(Date)

Dec. 29, 1997
(Date)

(Date)

(Date)

Darwin J. Prockop (Seal)
Darwin J. Prockop

Leena Ala-Kokko (Seal)
Leena Ala-Kokko

Charlene J. Williams (Seal)
Charlene J. Williams


Pertti Ritvaniemi (Seal)
Pertti Ritvaniemi

(Seal)
Clinton Baldwin

(Seal)
Ian Hopkinson

STATE OF Pennsylvania :
 : ss.
COUNTY OF Philadelphia :

Before me, a notary public in and for the State and County aforesaid, on this 30 day of November, 1997, personally appeared **Darwin J. Prockop**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

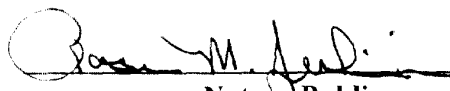

Notary Public

My Commission Expires:

Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF _____ :
 : ss.
COUNTRY OF Finland :

Before me, a notary public in and for the State and County aforesaid, on this 30 day of November, 1997, personally appeared **Leena Ala-Kokko**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.


Notary Public

My Commission Expires:

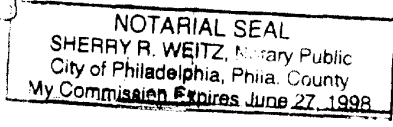
Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF Pennsylvania :
COUNTY OF Philadelphia : ss.

Before me, a notary public in and for the State and County aforesaid, on this 20 day of November, 1997, personally appeared **Charlene J. Williams**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Sherry R. Weitz
Notary Public

My Commission Expires:



STATE OF _____ :
COUNTRY OF Finland : ss.

Before me, a notary public in and for the State and County aforesaid, on this 29 day of December, 1997, personally appeared **Pertti Ritvaniemi**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

LAURI HAKKARAINEN
Notary Public

My Commission Expires:



STATE OF _____ :
: ss.
COUNTY OF _____ :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Clinton Baldwin**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

STATE OF _____ :
: ss.
COUNTRY OF United Kingdom :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Ian Hopkinson**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

ASSIGNMENT

WHEREAS, we, **Darwin J. Prockop**, a citizen of the United States, with a post office address of 291 Locust Street, Philadelphia, PA 19108, **Leena Ala-Kokko**, a citizen of Finland, with a post address of 317A High Road, Salem Harbour, Andalusia, PA 19020, **Charlene J. Williams**, a citizen of the United States, with a post office address of 46 Long Bow Drive, Sewell, NJ 08080, **Pertti Ritvaniemi**, a citizen of Finland, with a post office address of Torpantatu 21 A 8, 90230 Oulu, Finland, **Clinton Baldwin**, a citizen of the United States, with a post office address of 37 Trowbridge Street, Cambridge, MA 02138 and **Ian Hopkinson**, a citizen of the United Kingdom, with a post office address of 9 Vennwood Close, Wenvoe, Cardiff, United Kingdom, hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

METHODS OF DETECTING A GENETIC PREDISPOSITION FOR OSTEOARTHRITIS

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WHEREAS, **Thomas Jefferson University**, a not-for-profit corporation organized and existing under the laws of the Commonwealth of Pennsylvania, having its principal place of business at 11th and Walnut Streets, Philadelphia, PA 19107, hereinafter generally referred to as "ASSIGNEE", is desirous of acquiring said invention and said patent application.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable executed consideration, the full receipt and sufficiency of all of which are hereby acknowledged and intending to be legally bound hereby, we, the undersigned ASSIGNORS, hereby agree to sell, assign, transfer and convey and by these presents do sell, assign, transfer and convey unto the above-named ASSIGNEE, the whole and entire right, title and interest

in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-

provisionals, divisions and continuations thereof, along with all rights of priority created by said patent application under any treaty relating thereto; and

in and to all United States and foreign patents which may be granted on any and all of said patent applications, including extensions, reissues and reexamination certificates thereof;

said invention, application(s) and patent(s) to be held and enjoyed by the above-named ASSIGNEE, for ASSIGNEE's own use and benefit, and for ASSIGNEE's legal representatives and assigns to the full end of the term or terms for which said patent(s) may be granted, as fully and entirely as the same would have been held by the undersigned ASSIGNORS had this assignment and sale not been made; and for the aforesaid consideration ASSIGNORS hereby covenant, agree and undertake to execute, whenever requested by the above-named ASSIGNEE, all patent applications, assignments, lawful oaths and any other papers which ASSIGNEE may deem necessary or desirable for securing to ASSIGNEE or for maintaining for ASSIGNEE all the patent(s) hereby assigned or agreed to be assigned; all without further compensation to the undersigned ASSIGNORS.

Nov. 13, 1997
(Date)

Darwin J. Prockop (Seal)
Darwin J. Prockop

Nov. 13, 1997
(Date)

Leena Ala-Kokko (Seal)
Leena Ala-Kokko

Nov. 20, 1997
(Date)

Charlene J. Williams (Seal)
Charlene J. Williams

(Date)

Pertti Ritvaniemi (Seal)
Pertti Ritvaniemi

January 31, 1998
(Date)

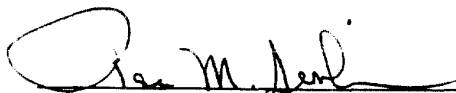
Clinton Baldwin (Seal)
Clinton Baldwin

(Date)

Ian Hopkinson (Seal)
Ian Hopkinson

STATE OF Pennsylvania :
: ss.
COUNTY OF Philadelphia :

Before me, a notary public in and for the State and County aforesaid, on this 13th day of November, 1997, personally appeared **Darwin J. Prockop**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

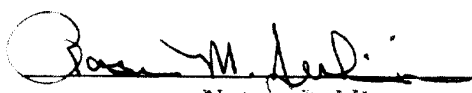

Notary Public

My Commission Expires:

Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF _____ :
: ss.
COUNTRY OF Finland :

Before me, a notary public in and for the State and County aforesaid, on this 13th day of November, 1997, personally appeared **Leena Ala-Kokko**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.


Notary Public

My Commission Expires:

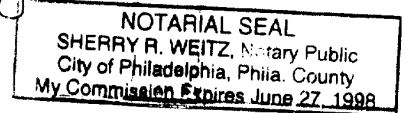
Notarial Seal
Rose M. Jenkins, Notary Public
Philadelphia, Philadelphia County
My Commission Expires June 5, 2000

STATE OF Pennsylvania :
 : ss.
COUNTY OF Philadelphia :

Before me, a notary public in and for the State and County aforesaid, on this 20 day of November, 1997, personally appeared **Charlene J. Williams**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Sherry R. Weitz
Notary Public

My Commission Expires:



STATE OF _____ :
 : ss.
COUNTRY OF Finland :

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Pertti Ritvaniemi**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

STATE OF Massachusetts :
COUNTY OF Middlesex : ss.

Before me, a notary public in and for the State and County aforesaid, on this 31 day of January, 1998 personally appeared **Clinton Baldwin**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Cynthia E. Carlson
Notary Public

My Commission Expires:

CYNTHIA E. CARLSON
NC 'IC
My commission exp. Sept. 15, 2000

STATE OF _____ :
COUNTRY OF United Kingdom : ss.

Before me, a notary public in and for the State and County aforesaid, on this ____ day of _____, 1997, personally appeared **Ian Hopkinson**, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his free deed and act, signed, sealed and delivered by him for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

My Commission Expires:

ASSIGNMENT

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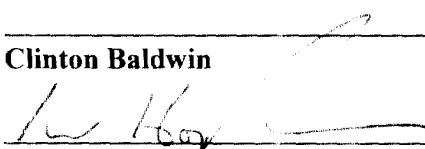
in and to said invention as described in the above patent application, for the territory of the United States and its possessions and territories and all foreign countries;

in and to the above patent application and any and all related United States and foreign patent applications disclosing said invention, including provisionals, non-

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_____ (Date)	_____ Darwin J. Prockop (Seal)
_____ (Date)	_____ Leena Ala-Kokko (Seal)
_____ (Date)	_____ Charlene J. Williams (Seal)
_____ (Date)	_____ Pertti Ritvaniemi (Seal)
_____ (Date)	_____ Clinton Baldwin (Seal)
<u>20 4 98</u> (Date)	<u></u> Ian Hopkinson (Seal)