

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Brian Seed	02/17/1993
Alejandro Aruffo	01/05/1993
David Simmons	01/27/1993
Siegfried Stengelin	09/24/1990
Leander Lauffer	10/24/1990
David Camerini	09/12/1990
Carmen Patricia Oquendo	09/25/1990
Janet Allen	09/12/1990
Ivan Stamenkovic	10/05/1990
Martine Amiot	10/03/1990

RECEIVING PARTY DATA

Name:	The General Hospital Corporation
Street Address:	Thirteenth Street, Bldg. 149, Ste. 1101
City:	Charlestown
State/Country:	MASSACHUSETTS
Postal Code:	02129

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	09836544

CORRESPONDENCE DATA

Fax Number: (303)499-8089

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 303-499-8080

Email: Diane@greenwin.com

Correspondent Name: Donna M. Ferber

Address Line 1: 4875 Pearl East Circle, Suite 200

PATENT

REEL: 017470 FRAME: 0001

500094124

CH \$40.00 09836544

Address Line 2: Greenlee, Winner & Sullivan, P.C.
Address Line 4: Boulder, COLORADO 80301

ATTORNEY DOCKET NUMBER:

11-88L

NAME OF SUBMITTER:

Donna M. Ferber

Total Attachments: 34

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ASSIGNMENT

WHEREAS WE, Brian Seed, David Simmons and Alejandro Aruffo (herein called "ASSIGNORS"), having addresses respectively at 47A Joy Street, Boston, Massachusetts 02114; John Radcliffe Hospital, Headington, Oxford OX3 9DU, United Kingdom; and Bristol Myers Squibb Research Institute, 3005 First Avenue, Seattle, Washington 98121; are co-inventors of the invention in "RAPID IMMUNOSELECTION CLONING METHOD" for which we have executed an application for a Patent of the United States, filed December 1, 1992, Serial No. 983,647;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts having a principal place of business at Thirteenth Street, Bldg. 149, Suite 1101, Charlestown, Massachusetts 02129, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper

PATENT

REEL: 017470 FRAME: 0003

REEL
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0003

protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals the day and year set opposite our signatures.

Dated: _____, 199_

Brian Seed

State of

:

County of

: SS

:

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

Dated: 27/01, 1993

David Simmons

State of OXFORD

:

County of U.K.

: SS

:

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

Dated: _____, 199_

Alejandro Aruffo

State of

:

County of

: SS

:

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

REEL 0023
PAGE 649

ASSIGNMENT

WHEREAS WE, Brian Seed, David Simmons and Alejandro Aruffo (herein called "ASSIGNORS"), having addresses respectively at 47A Joy Street, Boston, Massachusetts 02114; John Radcliffe Hospital, Headington, Oxford OX3 9DU, United Kingdom; and Bristol Myers Squibb Research Institute, 3005 First Avenue, Seattle, Washington 98121; are co-inventors of the invention in "RAPID IMMUNOSELECTION CLONING METHOD" for which we have executed an application for a Patent of the United States, filed December 1, 1992, Serial No. 983,647;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts having a principal place of business at Thirteenth Street, Bldg. 149, Suite 1101, Charlestown, Massachusetts 02129, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs, which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

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PATENT

protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals the day and year set opposite our signatures.

1 Dated: Feb. 17, 1993

Brian Seed
Brian Seed

State of

:

County of

:

SS

Subscribed and sworn to before me this 17 day of February, 1993.

David K. Simmons
Notary Public

My commission expires: 12/3/96

Dated: _____, 199__

David Simmons

State of

:

County of

:

SS

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

Dated: _____, 199__

Alejandro Aruffo

State of

:

County of

:

SS

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

6449

0025

ASSIGNMENT

WHEREAS WE, Brian Seed, David Simmons and Alejandro Aruffo (herein called "ASSIGNORS"), having addresses respectively at 47A Joy Street, Boston, Massachusetts 02114; John Radcliffe Hospital, Headington, Oxford OX3 9DU, United Kingdom; and Bristol Myers Squibb Research Institute, 3005 First Avenue, Seattle, Washington 98121; are co-inventors of the invention in "RAPID IMMUNOSELECTION CLONING METHOD" for which we have executed an application for a Patent of the United States, filed December 1, 1992, Serial No. 983,647;

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NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

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AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper

PATENT

REEL: 017470 FRAME: 0007

protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals the day and year set opposite our signatures.

Dated: _____, 199__

Brian Seed

State of

:

County of

:

SS

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

Dated: _____, 199__

David Simmons

State of

:

County of

:

SS

Subscribed and sworn to before me this _____ day of _____, 19__.

Notary Public

My commission expires:

Dated: 15, 1993

Alejandro Aruffo

State of WASHINGTON

:

County of KING

:

SS

Subscribed and sworn to before me this 5th day of JANUARY, 1993.

Notary Public

My commission expires:

10/95

RECORDED
PATENT & TRADEMARK OFFICE

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0027

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PATENT

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ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Laufer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

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AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

PATENT

REEL: 017470 FRAME: 0009

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution: _____

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution:

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name:

Address:

Dated: _____, 1990

Place of Execution:

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name:

Address:

Dated: 9-24-90, 1990

Place of Execution:

Siegfried Stengel
Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: 9-24-90, 1990

Witness:

Print Name:

Address:

RECORDED
OFFICE OF THE CLERK
OF THE DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

NOV 21 1990

Robert S. Hsu
Robert S. Hsu
Robert S. Hsu

Dated: _____, 1990

Place of Execution:

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name:

Address:

PATENT

REEL: 017470 FRAME: 0012

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Lauffer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

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IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution:

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution:

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution:

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: 12/09/90, 1990

Place of Execution:

Oxford. UK.

David Simmons

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: 12/9/90, 1990

Witness:

Print Name: JONATHAN RAWCETT

Address: Imm, John Radcliffe Hospital,
Oxford,
England

Dated: _____, 1990

Place of Execution:

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name: _____

Address: _____

RECORDED
PATENT AND TRADEMARK
OFFICE

1991 21 1.13

Dated: _____, 1990

Place of Execution:

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness:

Print Name: _____

Address: _____

PATENT

REEL: 017470 FRAME: 0016

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Laufer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution:

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: 10/24, 1990

Place of Execution: _____

Marburg, F.R.G.

Leander Lauffer
Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: 10/24, 1990

Witness: Bicker
Print Name: Elke Bicker
Address: Albert-Schweitzer-Str. 5
3537 Amöneburg

Dated: _____, 1990

Place of Execution: _____

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

RECORDED
PATENT AND TRADEMARK
OFFICE

197 21 000

Dated: _____, 1990

Place of Execution: _____

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

PATENT

REEL: 017470 FRAME: 0020

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Lauffer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution: _____

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: 9/12, 1990

Place of Execution:

Los Angeles, CA USA

DAVID CAMERINI
David Camerini

~~Johnson Cancer Center~~ DC
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: 9/12, 1990

Witness:

Print Name: Zippora Williams Ph.D.

Address: 424 S. BEDFORD DR.

BEVERLY HILLS

CA. 90212

Dated: _____, 1990

Place of Execution:

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

RECORDED
PATENT AND TRADEMARK
OFFICE

NOV 21 1990

Dated: _____, 1990

Place of Execution: _____

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

PATENT

4 REEL: 017470 FRAME: 0024

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Lauffer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

PATENT

REEL: 017470 FRAME: 0025

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution: _____

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: 9/25/90, 1990

Place of Execution: _____

Marburg / W. Germany

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: 9/25/90, 1990

Witness: L. Grundmann

Print Name: Dr. U. Grundmann

Address: Behringwerke AG
3550 Marburg, FRG

Dated: _____, 1990

Place of Execution: _____

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

RECORDED
PATENT & TRADEMARK
OFFICE

SEP 21 1990

Dated: _____, 1990

Place of Execution: _____

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

PATENT

REEL: 017470 FRAME: 0028

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Lauffer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: _____, 1990

Place of Execution: _____

Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: 12 September, 1990

Place of Execution: _____

Cambridge

Janet Allen

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: 12 September, 1990

Witness: Ian M. Glynn
Print Name: IAN M. GLYNN
Address: TRINITY COLLEGE
CAMBRIDGE

Dated: _____, 1990

Place of Execution: _____

Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution:

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution:

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: _____, 1990

Place of Execution: _____

Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

PATENT

REEL: 017470 FRAME: 0032

ASSIGNMENT

WHEREAS WE, Brian Seed, Janet Allen, Alejandro Aruffo, David Camerini, Leander Lauffer, Carmen Patricia Oquendo, David Simmons, Ivan Stamenkovic, Siegfried Stengelin, and Martine Amiot (herein called "ASSIGNORS"), are coinventors of the invention entitled "Rapid Immunoselection Cloning Method" for which we have executed an application for a Patent of the United States, filed July 13, 1990, Serial No. 07/553,759;

WHEREAS, The General Hospital Corporation (herein called "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, having a usual place of business at 32 Fruit Street, Boston, Massachusetts 02114, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration the receipt of which is hereby acknowledged, we the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States Application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority of the United States, the International Convention of the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, we hereunto set our hands and seals
the day and year set opposite our signatures.

Dated: Oct 3, 1990

Place of Execution:

Boston, MA

Brian Seed
Brian Seed
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Brian Seed, who is known to
me, execute the above assignment.

Dated: Oct 3, 1990

Witness: Elaine Lynch
Print Name: ELAINE LYNCH
Address: Office of Technology Affairs
Massachusetts General Hospital
Boston, 02114

Dated: _____, 1990

Place of Execution:

Janet Allen
University of Cambridge
Department of Physiology
Downing Street
Cambridge, CB23EG
England

I was personally present and did see Janet Allen, who is known to
me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: Oct 8, 1990

Place of Execution:

Alejandro Aruffo
Alejandro Aruffo
12 Park Road
Belmont, MA 02178

I was personally present and did see Alejandro Aruffo, who is known
to me, execute the above assignment.

Dated: Oct 8, 1990

Witness: Elaine Lynch
Print Name: ELAINE LYNCH
Address: Office of Technology Affairs
Massachusetts General Hospital
Boston, 02114

Dated: _____, 1990

Place of Execution: _____

David Camerini
Johnsson Cancer Center
Factor Bldg., Rm. 11-934
University of California at Los
Angeles Medical School
Los Angeles, CA 90024

I was personally present and did see David Camerini, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Leander Lauffer
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Leander Lauffer, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

Carmen Patricia Oquendo
Forschung Molekular Biologie
Behringwerke AG, D3550 Marburg
West Germany

I was personally present and did see Carmen Patricia Oquendo, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____
Print Name: _____
Address: _____

Dated: _____, 1990

Place of Execution: _____

David Simmons
John Radcliffe Hospital
Headington, Oxford OX3 9DU
England

I was personally present and did see David Simmons, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

Dated: 10/5/90, 1990

Place of Execution: Boston

I - SK
Ivan Stamenkovic
125 Pleasant Street
Brookline, MA 02146

I was personally present and did see Ivan Stamenkovic, who is known to me, execute the above assignment.

Dated: 10/5/1, 1990

Witness: Elaine Lynch

Print Name: ELAINE LYNCH

Address: Office of Technology Affairs
Massachusetts General Hospital
Boston 02114

Dated: _____, 1990

Place of Execution: _____

Siegfried Stengelin
Hoechst AG, Pharma Fo. Biochemie
6230 Frankfurt am Main 80
West Germany

I was personally present and did see Siegfried Stengelin, who is known to me, execute the above assignment.

Dated: _____, 1990

Witness: _____

Print Name: _____

Address: _____

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OFFICE

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Dated: 3 October, 1990

Place of Execution: Boston MA

Muriel
Martine Amiot
Massachusetts General Hospital
Wellman Building
Boston, MA 02114

I was personally present and did see Martine Amiot, who is known to me, execute the above assignment.

Dated: 3 October, 1990

Witness: Elaine Lynch

Print Name: ELAINE LYNCH

Address: Office of Technology Affairs
Massachusetts General Hospital
Boston 02114

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