PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
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<tbody>
<tr>
<td>C. Frank Bennett</td>
<td>10/19/2005</td>
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<tr>
<td>Robert McKay</td>
<td>10/25/2005</td>
</tr>
<tr>
<td>Brett P. Monia</td>
<td>10/19/2005</td>
</tr>
<tr>
<td>Brenda F. Baker</td>
<td>11/09/2005</td>
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<tr>
<td>Namir Sioufi</td>
<td>10/17/2005</td>
</tr>
<tr>
<td>Richard H. Griffey</td>
<td>11/18/2005</td>
</tr>
<tr>
<td>Balkrishen Bhat</td>
<td>11/23/2005</td>
</tr>
<tr>
<td>Eric E. Swayne</td>
<td>11/09/2005</td>
</tr>
</tbody>
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RECEIVING PARTY DATA

Name: Isis Pharmaceuticals, Inc.
Street Address: 1896 Rutherford Road
City: Carlsbad
State/Country: CALIFORNIA
Postal Code: 92008

PROPERTY NUMBERS Total: 1

<table>
<thead>
<tr>
<th>Property Type</th>
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<tr>
<td>Application Number</td>
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CORRESPONDENCE DATA

Fax Number: (760)603-3820

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

Phone: 760-603-2553
Email: leames@isisph.com

Correspondent Name: Laura Eames
Address Line 1: 1896 Rutherford Road
Address Line 4: Carlsbad, CALIFORNIA 92008
<table>
<thead>
<tr>
<th>ATTORNEY DOCKET NUMBER:</th>
<th>CORE0047US</th>
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<tbody>
<tr>
<td>NAME OF SUBMITTER:</td>
<td>Laura Eames</td>
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Total Attachments: 20
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ASSIGNMENT

WHEREAS, I/we, C. Frank Bennett, of Carlsbad, California, Robert McKay, of Poway, California, Brett P. Monia, of Encinitas, California, Brenda F. Baker, of Carlsbad, California, Namir Sioufi, of Beirut, Lebanon, Richard H. Griffey, of Carlsbad, California, Balkrishen Bhat, of Carlsbad, California, Eric E. Swayze, of Carlsbad, California, have invented a certain invention entitled CONJUGATES FOR USE IN HEPATOCYTE FREE UPTAKE ASSAY, for which I/we have made an application for Letters Patent of the United States, said application having been filed 9/7/2005 and assigned Application No. 11/221,001; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 1896 Rutherford Road, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar ($1.00) to each of us in hand paid by said assignee, 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 to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be
granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant 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 further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

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 on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.
IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: Oct 19, 2005

C. Frank Bennett

State of California

County of San Diego

ss.

On this 19th day of October, 2005, before me, the undersigned, a Notary Public for the state, personally appeared C. Frank Bennett, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

[Signature of Notary]

ASSIGNMENT - Page 3 of 10
On this 25th day of October, 2005, before me, the undersigned, a Notary Public for the state, personally appeared Robert McKay, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

LAURA L. EAMES
Commission # 1483258
Notary Public - California
San Diego County
My Comm. Expires Apr 13, 2008

Signature of Notary
Dated: 10/19 2005

Brett P. Monia

State of California

County of San Diego

On this 19th day of October, 2005, before me, the undersigned, a Notary Public for the state, personally appeared Brett P. Monia, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

Signature of Notary
DOCKET NO.: CORE0047US

Dated: Nov 9 2005

Brenda F. Baker

State of California ss.
County of San Diego

On this 9th day of November, 2005, before me, the undersigned, a Notary Public for the state, personally appeared Brenda F. Baker, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

Signature of Notary

LAURA L. EAMES
Commission # 1483256
Notary Public - California
San Diego County
My Comm. Expires Apr 13, 2008

ASSIGNMENT - Page 6 of 10
STATEMENT OF WITNESSES

I was personally present and did see Namir Sioufi execute the above assignment, and he is personally known to me to be the person described in this document.

(1) Date: 10/17/2005
(2) Date: 10-17-2005
Dated: _______________ 20__

Richard H. Griffey

State of _______________ )

) ss.

County of _______________ )

On this __________ day of _______________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Richard H. Griffey, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

________________________
Signature of Notary
DOCKET NO.: CORE0047US

Dated: 11/23/2005

State of California
County of San Diego

On this 23rd day of November, 2005 before me, the undersigned, a Notary Public for the state, personally appeared Balkrishen Bhat, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

Signature of Notary

ASSIGNMENT - Page 9 of 10
Dated: 11/09/2005

Eric E. Swayne

State of California, ss.

County of San Diego

On this 9th day of November, 2005, before me, the undersigned, a Notary Public for the state, personally appeared Eric E. Swayne, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

Signature of Notary

Laura L. Eames
Commission # 1483258
Notary Public - California
San Diego County
My Comm. Expires Apr 13, 2008
ASSIGNMENT

WHEREAS, I/we, C. Frank Bennett, of Carlsbad, California, Robert McKay, of Poway, California, Brett P. Monia, of Encinitas, California, Brenda F. Baker, of Carlsbad, California, Namir Sioufi, of Beirut, Lebanon, Richard H. Griffey, of Vista, California, Balkrishen Bhat, of Carlsbad, California, Eric E. Swayne, of Carlsbad, California, has/have invented a certain invention entitled CONJUGATES FOR USE IN HEPATOCYTE FREE UPTAKE ASSAY, for which I/we have made an application for Letters Patent of the United States, said application having been filed 9/7/2005 and assigned Application No. 11/221,001; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 1896 Rutherford Road, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar ($1.00) to each of us in hand paid by said assignee, 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 to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.
AND we hereby covenant 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 further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

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 on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.
IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: ________________ 20__


C. Frank Bennett

State of ________________ )
                        ) ss.
County of ________________ )

On this __________ day of ________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared C. Frank Bennett, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

__________________________________________
Signature of Notary
Dated: __________________ 20__

Robert McKay

State of __________________ )
                              ss.
County of __________________ )

On this __________ day of __________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Robert McKay, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

______________________________
Signature of Notary
Dated: _______________ 20__

Brett P. Monia

State of ___________________ ) ss.
County of ___________________ )

On this __________ day of ________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Brett P. Monia, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

________________________
Signature of Notary
Dated: __________________ 20__

Brenda F. Baker

State of ________________ )

) ss.

County of ________________)

On this ____________ day of ________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Brenda F. Baker, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

__________________________
Signature of Notary
Dated: ________________ 20__

Namir Sioufi

STATEMENT OF WITNESSES

I was personally present and did see Namir Sioufi execute the above assignment, and he is personally known to me to be the person described in this document.

(1) ___________________________ Date: ___________________________

(2) ___________________________ Date: ___________________________
On this __________ day of __________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Richard H. Griffey, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

________________________________________
Signature of Notary
DOCKET NO.: CORE0047US

Dated: ___________________ 20__

______________________________
Balkrishen Bhat

State of ____________________ )

) ss.

County of ____________________

On this __________ day of __________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Balkrishen Bhat, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

______________________________
Signature of Notary
Dated: __________________ 20__

Eric E. Swayze

State of __________________ )
County of________________ ) ss.

On this ___________ day of __________________, 20__, before me, the undersigned, a Notary Public for the state, personally appeared Eric E. Swayze, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

__________________________
Signature of Notary