### PATENT ASSIGNMENT

**Electronic Version v1.1**  
**Stylesheet Version v1.1**

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<th>SUBMISSION TYPE:</th>
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#### CONVEYING PARTY DATA

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<th>Name</th>
<th>Execution Date</th>
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<tr>
<td>Pamela Palmer</td>
<td>10/09/2009</td>
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<tr>
<td>Charles Rampersaud</td>
<td>10/09/2009</td>
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<tr>
<td>Bruce Edwards</td>
<td>10/09/2009</td>
</tr>
<tr>
<td>Edmond Chiu</td>
<td>10/16/2009</td>
</tr>
<tr>
<td>Thomas Schreck</td>
<td>10/09/2009</td>
</tr>
<tr>
<td>Stelios Tzannis</td>
<td>12/14/2009</td>
</tr>
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#### RECEIVING PARTY DATA

| Name: AcelRx Pharmaceuticals, Inc. |
| Street Address: 575 Chesapeake Drive |
| City: Redwood City |
| State/Country: CALIFORNIA |
| Postal Code: 94063 |

**PROPERTY NUMBERS Total: 1**

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<tr>
<td>PCT Number</td>
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#### CORRESPONDENCE DATA

Fax Number: (312)913-0002  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*

Phone: 3129130001  
Email: harper@mbhb.com  
Correspondent Name: McDonnell Boehnen Hulbert & Berghoff LLP  
Address Line 1: 300 South Wacker Drive  
Address Line 2: Suite 3100  
Address Line 4: Chicago, ILLINOIS 60606

**ATTORNEY DOCKET NUMBER:** 08-1128-PCT6
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<th>NAME OF SUBMITTER:</th>
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ASSIGNMENT

Case No.: 08-1128-PCT6
Inventors: Pamela Palmer, Andrew I. Poutiatine, Charles Rampersaud, Bruce Edwards, Edmond Chiu, Thomas Schreck, Stelios Tzannis and Larry Hamel
Date of Execution of Application: Filing Date: December 28, 2007

In consideration and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

AcelRx Pharmaceuticals, Inc.

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

“Storage and Dispensing Devices for Administration of Oral Transmucosal Dosage Forms”

and identified as:

Case No. 08-1128-PCT6

In the offices of MCDONNELL BOEHNNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign (including but not limited to all countries on the list below*), which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries (including but not limited to all countries on the list below*), which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the United States Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and
other documents for Letters Patent in foreign countries (including but not limited to all countries
on the list below*) on said invention or improvements, that said assignee, its successors or
assigns may deem necessary or expedient; and for the said considerations the undersigned
authorize said assignee to apply for patents for said invention or improvements in its own name
in such countries where such procedure is proper and further agree, upon the request of said
assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned
with said assignee, its successors and assigns, in any proceedings or transactions involving
such applications or patents, including the preparation and execution of preliminary statements,
giving and producing evidence, and performing any and all other acts necessary to obtain,
maintain and enforce said Letters Patent, both United States and foreign, and vest all rights
therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters
Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end
of the term for which said Letters Patent will be granted, as fully and entirely as the same would
have been held and enjoyed by the undersigned if this assignment had not been made.

*Countries include, but are not limited to: all member countries of the Patent Cooperation
Treaty (PCT) including Albania, Algeria, Antigua and Barbuda, Armenia, Australia, Austria,
Azerbaijan, Barbados, Belarus, Belgium, Belize, Benin, Bosnia and Herzegovina, Brazil,
Bulgaria, Burkina Faso, Cameroon, Canada, Central African Republic, Chad, China, Colombia,
Congo, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Democratic People's
Republic of Korea, Denmark, Dominica, Ecuador, Estonia, Finland, France, Gabon, Gambia,
Georgia, Germany, Ghana, Greece, Grenada, Guinea, Guinea-Bissau, Hungary, Iceland, India,
Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Kenya, Kyrgyzstan, Latvia, Lesotho, Liberia,
Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Mali, Mauritania, Mexico, Monaco,
Mongolia, Morocco, Netherlands, New Zealand, Niger, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saint Lucia,
Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan,
Swaziland, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Togo,
Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates,
United Kingdom, United Republic of Tanzania, United States of America, Uzbekistan, Vietnam,
Yugoslavia, Zambia, Zimbabwe.

WITNESS my hand and seal this 9th day of October, 2009.

Pamela Palmer

State of County of San Mateo

On October 2009 before me, Tina Kuhs
(here insert name and title of the officer), personally appeared Pamela Palmer,
personally known to me (or proved to me on the basis of satisfactory evidence) to be the
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me
that he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the
person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature
(Seal)
WITNESS my hand and seal this 11th day of November, 2009.

Andrew I. Poutiatine

State of County of San Francisco

On May 11, 2009, before me, Tina Marie Kuhns (here insert name and title of the officer), personally appeared Andrew Poutiatine personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature (Seal)

WITNESS my hand and seal this 9th day of October, 2009.

Charles Rampersaud

State of County of San Mateo

On October 9, 2009, before me, Tina Kuhns (here insert name and title of the officer), personally appeared Charles Rampersaud personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature (Seal)

PATENT
REEL: 023793 FRAME: 0798
WITNESS my hand and seal this 9th day of October, 2009.

[Signature]

Bruce Edwards

State of County of San Mateo

On October 9, 2009 before me, Tina Kuhns, personally appeared personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature] (Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1769560
County of San Mateo
My Commission expires Sept. 18, 2011

---

WITNESS my hand and seal this 16th day of October, 2009.

[Signature]

Edmond Chiu

State of County of San Mateo

On October 16, 2009 before me, Tina Kuhns, personally appeared Edmond Chiu, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature] (Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1769560
County of San Mateo
My Commission expires Sept. 18, 2011
WITNESS my hand and seal this 9th day of October, 2009.

Thomas Schreck

State of County of San Mateo

On October 9, 2009 before me, Tina Kuhns (here insert name and title of the officer), personally appeared Thomas Schreck, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature [Signature] (Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1758950
County of San Mateo
My Commission expires 07/18/2011

WITNESS my hand and seal this ___ day of ____________________, 2009.

Stelios Tzannis

State of County of ____________________

On ____________________ before me, ____________________ (here insert name and title of the officer), personally appeared ____________________, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature ____________________ (Seal)
WITNESS my hand and seal this 30th day of September, 2009.

Larry Hamel

State of County of San Mateo

On Sept 30, 09 before me, Tina Kuhns (here insert name and title of the officer), personally appeared personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature ___________________________ (Seal)
ASSIGNMENT

Case No.: 08-1128-PCT6
Serial No.: PCT/US2007/089017
Inventors: Pamela Palmer, Andrew I. Poutiatine, Charles Rampersaud, Bruce Edwards, Edmond
Chiu, Thomas Schreck, Stelios Tzannis and Larry Hamel
Date of Execution
Filing Date: December 28, 2007
of Application:

In consideration and other good and valuable considerations in hand paid, the receipt
and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

AcelRx Pharmaceuticals, Inc.

its successors and assigns, the entire right, title and interest in the invention or improvements of
the undersigned disclosed in an application for Letters Patent of the United States, entitled:

“Storage and Dispensing Devices for Administration of Oral Transmucosal Dosage
Forms”

and identified as:

Case No. 08-1128-PCT6

in the offices of MCDONNELL BOEHNEH HULBERT & BERGHOFF LLP and in said application and any
and all other applications, both United States and foreign (including but not limited to all
countries on the list below*), which the undersigned may file, either solely or jointly with others,
on said invention or improvements, and in any and all Letters Patent of the United States and
foreign countries (including but not limited to all countries on the list below*), which may be
obtained on any of said applications, and in any reissue or extension of such patents, and further
assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the United States Commissioner of
Patents and Trademarks to issue said Letters Patent to said assignee.

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to insert in this assignment the filing date and serial number of said application when officially
known, and the date of execution of the application.

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interest in said invention or improvements and to have the right to make this assignment, and
further warrant that there are no outstanding prior assignments, licenses, or other
encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the
expense of said assignee, its successors and assigns, to execute any and all divisional,
continuation and substitute applications for said invention or improvements, and any necessary
oath, affidavit or declaration relating thereto, and any application for the reissue or extension of
any Letters Patent that may be granted upon said application and any and all applications and
other documents for Letters Patent in foreign countries (including but not limited to all countries on the list below*) on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient; and for the said considerations the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

*Countries include, but are not limited to: all member countries of the Patent Cooperation Treaty (PCT) including Albania, Algeria, Antigua and Barbuda, Armenia, Australia, Austria, Azerbaijan, Barbados, Belarus, Belgium, Belize, Benin, Bosnia and Herzegovina, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Central African Republic, Chad, China, Colombia, Congo, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Democratic People's Republic of Korea, Denmark, Dominica, Ecuador, Estonia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guinea, Guinea-Bissau, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Kenya, Kyrgyzstan, Latvia, Lesotho, Liberia, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Mali, Mauritania, Mexico, Monaco, Mongolia, Monaco, Mongolia, Morocco, Netherlands, New Zealand, Niger, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saint Lucia, Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United Republic of Tanzania, United States of America, Uzbekistan, Vietnam, Yugoslavia, Zambia, Zimbabwe.

WITNESS my hand and seal this 7th day of October, 2009.

Pamela Palmer

State of County of San Mateo

On October 9, 2009 before me, Tina Kuhns
(here insert name and title of the officer), personally appeared Pamela Palmer, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature (Seal)
WITNESS my hand and seal this 11th day of NOVEMBER, 2009.

Andrew I. Poutiatine

State of County of San Francisco

On MAY 11, 2009 before me, Tina Marie Kuhns, personally appeared Andrew Poutiatine, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature janet. (Seal)

State of County of San Mateo

On OCTOBER 9, 2009 before me, Tina Kuhns, personally appeared Charles Rampersaud, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature janet. (Seal)
WITNESS my hand and seal this 9th day of October, 2009.

[Signature]

Bruce Edwards

State of County of San Mateo

On October 9, 2009 before me, [Name], personally appeared

(personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.)

WITNESS my hand and official seal.

Signature [Signature]

(Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1768950
County of San Mateo
My Commission expires Sept. 18, 2011

WITNESS my hand and seal this 16th day of October, 2009.

[Signature]

Edmond Chiu

State of County of San Mateo

On October 16, 2009 before me, [Name], personally appeared

(personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.)

WITNESS my hand and official seal.

Signature [Signature]

(Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1768950
County of San Mateo
My Commission expires Sept. 18, 2011

- 4 of 6 -
WITNESS my hand and seal this ____ day of ______________, 2009.

________________________________________
Thomas Schreck

State of County of _______________________

On ____________________________________ before me, __________________________
(please insert name and title of the officer), personally appeared _______________________
personally known to me (or proved to me on the basis of satisfactory evidence) to be the
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me
that he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the
person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature ______________________________ (Seal)


WITNESS my hand and seal this 14th day of DECEMBER, 2009.

________________________________________
Stelios Tzannis

State of County of FRANCE

On 14th day of DECEMBER, 2009 before me, Maitre Jean Fabrice TANSEZ, notaire à Aix en PRO
(please insert name and title of the officer), personally appeared Maitre Stelios TZANNIS
personally known to me (or proved to me on the basis of satisfactory evidence) to be the
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me
that he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the
person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature ______________________________ (Seal)
WITNESS my hand and seal this 30th day of September, 2009.

Larry Hamel

State of County of San Mateo

On Sept 30, 09 before me, Tina Kuhns (here insert name and title of the officer), personally appeared Larry Hamel personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature (Seal)

OFFICIAL SEAL
TINA MARIE KUHNS
NOTARY PUBLIC - CALIFORNIA
COMMISSION #1768950
County of San Mateo
My Commission expires Sept 18, 2011

- 6 of 6 -

RECORDED: 01/15/2010

PATENT
REEL: 023793 FRAME: 0807