505010252 07/18/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT5057000

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DANIEL CODALLOS JR	10/10/2017
ROBERT ORR	10/10/2017
CHING-YUAN LI	10/03/2017
VALERIE DENISE START	10/04/2017

RECEIVING PARTY DATA

Name:	IGNYTA, INC.
Street Address:	4545 TOWNE CENTRE COURT
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16039196

CORRESPONDENCE DATA

Fax Number: (858)792-6773

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 8588476700

Email: djones-beasley@foley.com, ipdocketing@foley.com

Correspondent Name: DEBORAH JONES-BEASLEY
Address Line 1: FOLEY & LARDNER LLP

Address Line 2: 3000 K STREET, N.W., SUITE 600

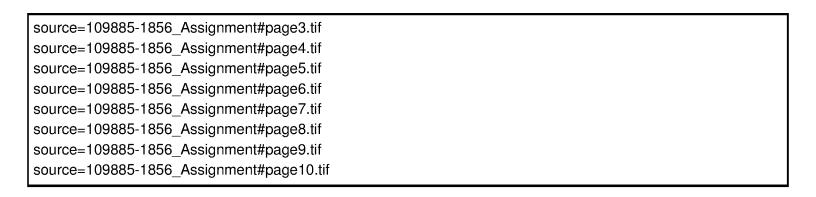
Address Line 4: WASHINGTON, D.C. 20007

ATTORNEY DOCKET NUMBER:	109885-1856
NAME OF SUBMITTER:	DEBORAH JONES-BEASLEY
SIGNATURE:	/Deborah Beasley/
DATE SIGNED:	07/18/2018

Total Attachments: 10

source=109885-1856_Assignment#page1.tif source=109885-1856_Assignment#page2.tif

PATENT 505010252 REEL: 046390 FRAME: 0054



Docket Number: 109885-1855 (IGNYTA.018PR6)

Filing Date: July 19, 2017

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ASSIGNMENT

WHEREAS, Daniel Codallos, Jr., residing in San Diego, California (hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to PHARMACE/JTICAL COMPOSITIONS AND DOSAGE FORMS (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, Ignyta, Inc., a Delaware Corporation, with its principal place of business at 4545 Towne Centre Court, San Diego, CA 92121 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto, including but not limited to U.S. Provisional Application No(s). 62/534,585, filed July 19, 2017, and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents 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 all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made, thereto, sign all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

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Filing Date: July 19, 2017

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Legal Name of inventor: Daniel Codallos, Jr.

Signature:

1/2017 Date: 10-10-2017

Signature before a Notary is desirable but not required.

STATE OF CALIFORNIA

COUNTY OF PRANCE

SS.

COUNTY OF CREATER STATE

On 10.10.17 , before me, MICHAEL CAREAL , notary public, personally appeared Daniel Codallos, Jr. who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/ase subscribed to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(iee), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) racted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

MICHAEL CARON
Notary Public - California
Orange County
Commission # 2159225
My Comm. Expires Aug 3, 2020

[SEAL]

Motary Signature

Docket Number: 109885-1855 (IGNYTA.018PR6)

Filing Date: July 19, 2017

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ASSIGNMENT

WHEREAS, Robert Orr, residing in San Clemente, California, United States of America (hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to PHARMACEUTICAL COMPOSITIONS AND DOSAGE FORMS (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, Ignyta, Inc., a Delaware Corporation, with its principal place of business at 4545 Towne Centre Court, San Diego, CA 92121 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto (including but not limited to ⊎.S. Provisional Application No(s). 62/534,585, filed July 19, 2017), and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents 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 all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

Docket Number: 109885-1855 (IGNYTA.018PR6)

Filing Date: July 19, 2017

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Legal Name of inventor: Robert Orr

Signature:

1013000 Se Date: 10-10-2017

Signature before a Notary is desirable but not required.

STATE OF CALIFORNIA

COUNTY OF CRANGE

SS.

On 10.10.17, before me, MICHAEL CARCA, notary public, personally appeared Robert Orr who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/a/e 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.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

MICHAEL CARON
Notary Public - California

[SEAL]

Notary Signature

Orange County
Commission # 2159225
My Comm. Expires Aug 2, 2020

Docket Number: 109885-1855 (IGNYTA.018PR6)

Filing Date: July 19, 2017

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ASSIGNMENT

WHEREAS, Ching-Yuan Li, residing in San Diego, California, United States of America (hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to PHARMACEUTICAL COMPOSITIONS AND DOSAGE FORMS (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, Ignyta, Inc., a Delaware Corporation, with its principal place of business at 4545 Towne Centre Court, San Diego, CA 92121 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto (including but not limited to U.S. Provisional Application No(s). 62/534,585, filed July 19, 2017), and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents 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 all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

Application No.: 62/534,585 Docket Number: 109885-1855 (IGNYTA.018PR6) Filing Date: July 19, 2017		
, = -		Page 2 of 2
Legal Name of inventor: Ching-	Yuan Li	
Signature:		e: 03 Oct 2017
STATE OF CALIFORNIA COUNTY OF	Signature before a Notary is desirable	but not required.
be the person(s) whose name(s) is to me that he/she/they executed the	e,, nota Li who proved to me on the basis of satisfa s/are subscribed to the within instrument, a ne same in his/her/their authorized capacity strument the person(s), or the entity upon b rument.	nd acknowledged /(ies), and that by
I certify under PENALTY OF PER- foregoing paragraph is true and co	JURY under the laws of the State of Califor prrect.	nia that the
WITNESS my hand and official sea	al.	

Notary Signature

[SEAL]

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this ce document to which this certificate is attached, and	rtificate verifies only the identity of the individual who signed the not the truthfulness, accuracy, or validity of that document.
tate of California ounty of	Here Insert Name and Title of the Officer Name(s) of Signer(s)
ubcaribad to the within instrument and act	ctory evidence to be the person(s) whose name(s) is/are knowledged to me that he/she/thex executed the same in by his/her/their signature(s) on the instrument the person(s), (3) acted, executed the instrument.
DAWN BARRON	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
300	WITNESS my hand and official seal.
Commission # 2091736 Notary Public - California Santa Clara County My Comm. Expires Dec 25, 2018	Signature Signature of Notary Public
Commission # 2091736 Notary Public - California Santa Ciara County My Comm. Expires Dec 25, 2018 Place Notary Seal Above Though this section is optional, completing	Signature Signature of Notary Public OPTIONAL g this information can deter alteration of the document or
Commission # 2091736 Notary Public - California Santa Ciara County My Comm. Expires Dec 25, 2018 Place Notary Seal Above Though this section is optional, completing	Signature Signature of Notary Public OPTIONAL g this information can deter alteration of the document or of this form to an unintended document.

Docket Number: 109885-1855 (IGNYTA.018PR6)

Filing Date: July 19, 2017

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ASSIGNMENT

WHEREAS, Valerie Denise Start, residing in San Diego, California, United States of America (hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to PHARMACEUTICAL COMPOSITIONS AND DOSAGE FORMS (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, Ignyta, Inc., a Delaware Corporation, with its principal place of business at 4545. Towne Centre Court, San Diego, CA 92121 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto (including but not limited to U.S. Provisional Application No(s). 62/534,585, filed July 19, 2017), and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents 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 all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

Application No.: 62/534,58 Docket Number: 109885-1		
Filing Date: July 19, 2017		Page 2 of
Legal Name of inventor:	Valerie Denise Start	
Signature:	V.D. Mart	Date: <u>0t 4th</u> 2017
STATE OF CALIFORNIA COUNTY OF	Signature before a Nota	ary is desirable but not required.
personally appeared Valerie evidence to be the person(acknowledged to me that h capacity(ies), and that by h	fore me,	on the basis of satisfactory ed to the within instrument, and his/her/their authorized trument the person(s), or the entity
I certify under PENALTY O foregoing paragraph is true	F PERJURY under the laws of the and correct.	e State of California that the
WITNESS my hand and off	icial seal,	
[SEAL]	Notary Sigr	nature

RECORDED: 07/18/2018

A notary public or other officer completing this certificate document to which this certificate is attached, and not the	verifies only the identity of the individual who signed the truthfulness, accuracy, or validity of that document.
tate of California Sounty of San Dicas On Act Sur 4, 2011 before me, Date	OWA BOMM Notary Public, Here Insert Name and Title of the Officer OS Sta A Name(s) of Signer(s)
ubscribed to the within instrument and acknowle	evidence to be the person(s) whose name(s) is/are, added to me that he/she/frey executed the same in s/her/their signature(s) on the instrument the person(s), ad, executed the instrument.
DAWN BARRON Commission # 2091736 Notary Public - California Santa Clara County	certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal. Signature Signature of Notary Public
Place Notary Seal Above	775788187
fraudulent reattachment of this	information can deter alteration of the document or form to an unintended document. Application to 21634,585 Docket 109885-1855 (16M/A-0)88
Olditol(2) Other than section in a second	