

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MALLINCKRODT LLC	12/13/2017

RECEIVING PARTY DATA

Name:	SPECGX LLC
Street Address:	385 MARSHALL AVENUE
City:	WEBSTER GROVES
State/Country:	MISSOURI
Postal Code:	63119

PROPERTY NUMBERS Total: 127

Property Type	Number
Patent Number:	6102198
Patent Number:	5912347
Patent Number:	6308826
Patent Number:	6343458
Patent Number:	6579985
Patent Number:	7285665
Patent Number:	7385068
Patent Number:	7691880
Patent Number:	7456306
Patent Number:	7834184
Patent Number:	7511060
Patent Number:	7622586
Patent Number:	8658433
Patent Number:	8871779
Patent Number:	8067597
Patent Number:	8993764
Patent Number:	8022181
Patent Number:	7714063
Patent Number:	7671204
Patent Number:	8017777

PATENT

Property Type	Number
Patent Number:	8252808
Patent Number:	8461337
Patent Number:	8067596
Patent Number:	8101757
Patent Number:	7999105
Patent Number:	8115002
Patent Number:	7985858
Patent Number:	8148528
Patent Number:	8445682
Patent Number:	8461384
Patent Number:	8232400
Patent Number:	8242277
Patent Number:	8227611
Patent Number:	8168790
Patent Number:	9458109
Patent Number:	9040726
Patent Number:	8252928
Patent Number:	8217175
Patent Number:	8232398
Patent Number:	8273887
Patent Number:	8394814
Patent Number:	8269006
Patent Number:	8080661
Patent Number:	8163912
Patent Number:	8293906
Patent Number:	8232396
Patent Number:	8227608
Patent Number:	8232397
Patent Number:	8309727
Patent Number:	8399475
Patent Number:	8273888
Patent Number:	8524904
Patent Number:	8283472
Patent Number:	8383649
Patent Number:	8729266
Patent Number:	8431701
Patent Number:	8563727
Patent Number:	8436174

Property Type	Number
Patent Number:	8563724
Patent Number:	8293907
Patent Number:	9040705
Patent Number:	8742028
Patent Number:	8519133
Patent Number:	8471023
Patent Number:	8492547
Patent Number:	8623888
Patent Number:	8314237
Patent Number:	8399671
Patent Number:	8383815
Patent Number:	8431705
Patent Number:	8415474
Patent Number:	8669366
Patent Number:	8490795
Patent Number:	8925727
Patent Number:	8910456
Patent Number:	9046403
Patent Number:	8842501
Patent Number:	8563725
Patent Number:	9016516
Patent Number:	8342331
Patent Number:	8703949
Patent Number:	8624030
Patent Number:	8991606
Patent Number:	8946433
Patent Number:	8731655
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Patent Number:	8748611
Patent Number:	8829020
Patent Number:	8614224
Patent Number:	9296699
Patent Number:	8624031
Patent Number:	8627957
Patent Number:	8921561
Patent Number:	9012468
Patent Number:	9005098
Patent Number:	8946419

Property Type	Number
Patent Number:	9120607
Patent Number:	9301918
Patent Number:	9518062
Patent Number:	9527858
Patent Number:	9414989
Patent Number:	9339565
Patent Number:	9181237
Patent Number:	9499556
Patent Number:	9193737
Patent Number:	9127009
Patent Number:	9415044
Patent Number:	9579252
Patent Number:	9593111
Patent Number:	9556108
Patent Number:	9713592
Patent Number:	9730885
Application Number:	15235312
Application Number:	12299944
Application Number:	14336357
Application Number:	13865244
Application Number:	13865286
Application Number:	15714137
Application Number:	15420386
Application Number:	15164483
Application Number:	14192971
Application Number:	15568587
Application Number:	14722541
Application Number:	14788908
Application Number:	15202670
Application Number:	15417541
Application Number:	15464865

CORRESPONDENCE DATA

Fax Number: (847)808-5500

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ATTORNEY DOCKET NUMBER:	MAL 2257 US
NAME OF SUBMITTER:	CARLYNN DAVIS
SIGNATURE:	/Carlynn Davis/
DATE SIGNED:	12/13/2017

Total Attachments: 9

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

WHEREAS, Mallinckrodt LLC, a Delaware limited liability company located at 675 McDonnell Boulevard, Hazelwood, MO 63042 ("ASSIGNOR"), is the owner of the entire right, title and interest in and to the patents and patent applications described in Exhibit A attached hereto and the corresponding inventions as described and claimed therein (collectively "Patent Properties"); and

WHEREAS, SpecGx LLC, a Delaware limited liability company, a Delaware limited liability company located at 385 Marshall Avenue, Webster Groves, MO 63119 ("ASSIGNEE"), is desirous of acquiring the entire right, title and interest in and to the Patent Properties and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries.

WHEREAS it is desired that the assignment of the Patent Properties be made of record in the United States Patent and Trademark Office

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers unto said ASSIGNEE, its entire worldwide right, title and interest in and to the Patent Properties, and to any and all letters patent which may be granted as a result thereof in the United States of America, in the territorial possessions of the United States of America and in any and all foreign countries, and to any and all divisions, reissues and continuations thereof, including the right to sue and recover damages for past infringement, the right to file foreign applications directly in the name of ASSIGNEE, the right to claim priority rights deriving from the Patent Properties to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said inventions and all letters patent on said inventions to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this sale, assignment and transfer not been made.

Executed the 13th day of December, 2017 (date of execution)

Mallinckrodt LLC

By: Carlynn Davis

Name: Carlynn Ferguson Davis

Title: Attorney-in-fact

SpecGx LLC

By: Carlynn Davis

Name: Carlynn Ferguson Davis

Title: Attorney-in-fact

EXHIBIT A

Country	Invention Title	Appl. No.	Filing Date	Patent No.	Issue Date	Status
US	Bulk Packaging System & Method for Retarding Caking of Organic & Inorganic Chemical Compounds	08/862010	5/22/1997	6102198	8/15/2000	Granted
US	PROCESS FOR PREPARING A MORPHINAN DERIVATIVE	08/939245	9/29/1997	5912347	6/15/1999	Granted
US	Bulk Packaging System & Method for Retarding Caking of Organic & Inorganic Chemical Compounds	09/296164	6/2/1999	6308826	10/30/2001	Granted
US	Bulk Packaging System & Method for Retarding Caking of Organic & Inorganic Chemical Compounds	09/560043	4/27/2000	6343458	2/5/2002	Granted
US	PREPARATION OF CODEINE FROM MORPHINE	10/274702	10/21/2002	6579985	6/17/2003	Granted
US	PROCESS FOR THE PREPARATION OF QUATERNARY N-ALKYL MORPHINAN ALKALOID SALTS	10/530446	4/5/2005	7285665	10/23/2007	Granted
US	Improved Stearate Composition and Method	11/154849	6/16/2005	7385068	6/10/2008	Granted
US	Methylphenidate HCl Oral Solution	10/554133	10/20/2005	7691880	4/6/2010	Granted
US	Improved Stearate Composition and Method	10/558591	11/29/2005	7456306	11/25/2008	Granted
US	Synthesis of 1-[(6-chloro-3,4-dihydroxy-phenyl)methyl]-3,4,5,6,7,8-hexahydro-6-oxo-2(1H)-isoquinolinecarboxaldehyde (CI-OH-12) and its analogues	11/718263	4/30/2007	7834184	11/16/2010	Granted
US	Synthesis of 1-[(6-chloro-3,4-dihydroxy-phenyl)methyl]-3,4,5,6,7,8-hexahydro-6-oxo-2(1H)-isoquinolinecarboxaldehyde (CI-OH-12) and its analogues	11/741910	4/30/2007	7511060	3/31/2009	Granted
US	Synthesis of 1-[(6-chloro-3,4-dihydroxy-phenyl)methyl]-3,4,5,6,7,8-hexahydro-6-oxo-2(1H)-isoquinolinecarboxaldehyde (CI-OH-12) and its analogues	11/741932	4/30/2007	7622586	11/24/2009	Granted
US	DYE-AZIDE COMPOSITIONS FOR DUAL PHOTOTHERAPY	11/931683	10/31/2007	8658433	2/25/2014	Granted
US	A CONVENIENT AND EFFECTIVE WAY TO CONVERT (MINOR AMOUNT OF) ALPHA,BETA-UNSATURATED KETONE TO SATURATED KETONE IN THE FINISHING DRUG SUBSTANCE	11/915606	11/27/2007	8871779	10/28/2014	Granted
US	A NEW SYNTHETIC ROUTE TO 14-HYDROXYL OPIATES THROUGH 1-HALO-THEBAINE OR ANALOGS	11/917180	12/11/2007	8067597	11/29/2011	Granted
US	THE USE OF ORIPAVINE AS A STARTING MATERIAL FOR BUPRENORPHINE	12/159025	6/24/2008	8993764	3/31/2015	Granted

US	A NEW CLEAVAGE REAGENT FOR THE RELEASE OF FULLY PROTECTED PEPTIDES SYNTHESIZED ON 2-CHLOROTRITYL CHLORIDE RESIN	12/298917	10/29/2008	8022181	9/20/2011	Granted
US	DEVELOPMENT OF A NEW SOLID SUPPORT AND ITS USE FOR THE NOVEL AND EFFICIENT SYNTHESIS OF PEPTIDES BY Fmoc METHOD	12/264948	11/5/2008	7714063	5/11/2010	Granted
US	N-DEMETHYLATION OF ORIPAVINE AND THEBAINE	12/316821	12/17/2008	7671204	3/2/2010	Granted
US	A NEW SYNTHETIC ROUTE ON MAKING (+)-BUPRENORPHINE FROM (+)-NORHYDROMORPHONE	12/316861	12/17/2008	8017777	9/13/2011	Granted
US	PRODUCTION OF THE UNNATURAL OPIATES FROM SINOMENINE	12/316862	12/17/2008	8252808	8/28/2012	Granted
US	SYNTHESIS OF THE POTENTIALLY BIOLOGICALLY ACTIVE ALKALOIDS DERIVED FROM SINOMENINE	12/316846	12/17/2008	8461337	6/11/2013	Granted
US	A NEW SYNTHETIC ROUTE ON MAKING (+)-NALTREXONE FROM 7-METHOXYHYDROCODONE	12/316974	12/17/2008	8067596	11/29/2011	Granted
US	PRODUCTION OF PURE NOROXYMORPHONE SALTS FROM CRUDE OXYMORPHONE WITHOUT THE ISOLATION OF ANY INTERMEDIATE COMPOUNDS	12/316887	12/17/2008	8101757	1/24/2012	Granted
US	O-DEMETHYLATION OF 3-METHOXYMORPHINAN DERIVATIVES TO 3-HYDROXYMORPHINAN DERIVATIVES, INCLUDING O-DEMETHYLATION OF OXYCODONE TO FORM OXYMORPHONE	12/372788	2/18/2009	7999105	8/16/2011	Granted
US	IMPROVEMENTS IN THE PREPARATION OF KEY INTERMEDIATES IN THE TOTAL SYNTHESIS OF OPIATES	12/441397	3/16/2009	8115002	2/14/2012	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 6ALPHA-HYDROXY-N-ALKYLATED OPTIATES IN ONE POT	12/444421	4/6/2009	7985858	7/26/2011	Granted
US	NEW TOTAL SYNTHETIC ROUTE TO NOROXYMORPHONE AND DERIVATIVES	12/469951	5/21/2009	8148528	4/3/2012	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 3,4-DIHYDROISOQUINOLINES	12/518434	6/10/2009	8445682	5/21/2013	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 3,4-DIHYDROISOQUINOLINES	12/481993	6/10/2009	8461384	6/11/2013	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 3,4-DIHYDROISOQUINOLINES	12/482014	6/10/2009	8232400	7/31/2012	Granted

US	IMPROVED PROCESS FOR THE PREPARATION OF 5-[1,2,3,4,5,8-HEXAHYDRO-6-METHOXY-1-ISOQUINOLINYL)METHYL]-2-METHOXY-PHENOL	12/518430	6/10/2009	8242277	8/14/2012	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 5-[1,2,3,4,5,8-HEXAHYDRO-6-METHOXY-1-ISOQUINOLINYL)METHYL]-2-METHOXY-PHENOL	12/482036	6/10/2009	8227611	7/24/2012	Granted
US	PROCESS FOR REDUCTION OF 6-KETO-OPIATES AND-MORPHANANS TO THE CORRESPONDING 6-BETA-HYDROXY-EPIMERS	12/485200	6/16/2009	8168790	5/1/2012	Granted
US	SYNTHESIS OF SUBSTITUTED BERBINES	12/552457	9/2/2009	9458109	10/4/2016	Granted
US	PROCESS IMPROVEMENT FOR THE SYNTHESIS NALTREXONE METHOBROMIDE	12/553144	9/3/2009	9040726	5/26/2015	Granted
US	NEW METHODOLOGY FOR THE FORMATION OF 5 AND 6 MEMBERED RINGS	12/558646	9/14/2009	8252928	8/28/2012	Granted
US	IMPROVED PREPARATION OF OXYMORPHONE FROM ORIPAVINE	12/532410	9/22/2009	8217175	7/10/2012	Granted
US	BUPRENORPHINE STEP 3 YIELD INCREASED BY RECYCLING ALKALOIDS IN THE FILTRATE FROM A PREVIOUS BATCH	12/586856	9/29/2009	8232398	7/31/2012	Granted
US	IMPROVED HYDROGENATION PROCESS FOR SYNTHETIC PREPARATION OF BUPRENORPHINE	12/586874	9/29/2009	8273887	9/25/2012	Granted
US	PURIFICATION OF CRUDE NOSCAPINE	12/586850	9/29/2009	8394814	3/12/2013	Granted
US	PROCESS FOR REDUCTIVE AMINATION OF KETONORMOPHINANS BY CATALYTIC HYDROGEN TRANSFER	12/586844	9/29/2009	8269006	9/18/2012	Granted
US	AN EFFICIENT AND OPERATIONALLY CONVENIENT SYNTHESIS OF TERTIARY AMINES BY DIRECT N-ALKYLATION OF SECONDARY AMINES OF ALKALOIDS WITH ALKYL HALIDES	12/586843	9/29/2009	8080661	12/20/2011	Granted
US	PREPARATION OF BERBERINES	12/586834	9/29/2009	8163912	4/24/2012	Granted
US	AN IMPROVED SYNTHESIS OF BUPRENORPHINE	12/586854	9/29/2009	8293906	10/23/2012	Granted
US	AN IMPROVED METHOD FOR CONTROL OF THE BETA-EPIMER IMPURITY FORMED IN THE DIELS ALDER REACTION OF THEBAINE OR ORIPAVINE WITH METYL VINYL KETONE	12/586841	9/29/2009	8232396	7/31/2012	Granted
US	3-O-METHYL NORBUPRENORPHINE AS STARTING MATERIAL TO PRODUCE NORBUPRENORPHINE	12/586842	9/29/2009	8227608	7/24/2012	Granted
US	IMPROVED THEBAINE TO BUPRENORPHINE PROCESS	12/586855	9/29/2009	8232397	7/31/2012	Granted

US	CONVENIENT OPERATIONS ON THE PRODUCTION OF OXYMORPHONE AND OXYCODONE	12/595519	10/12/2009	8309727	11/13/2012	Granted
US	CRYSTALLINE FORMS OF NALTREXONE HYDROCHLORIDE	12/595543	10/12/2009	8399475	3/19/2013	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 6ALPHA-HYDROXY-N-ALKYLATED OPTIATES IN ONE POT	12/630171	12/3/2009	8273888	9/25/2012	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF 6ALPHA-HYDROXY-N-ALKYLATED OPTIATES IN ONE POT	12/630192	12/3/2009	8524904	9/3/2013	Granted
US	ESTERIFICATION OF THREO-ACID(RITALINIC ACID) USING ORTHOESTERS AS WATER SCAVENGERS	12/652894	1/6/2010	8283472	10/9/2012	Granted
US	CRYSTALLINE FORMS OF NALTREXONE METHOBROMIDE	12/668218	1/8/2010	8383649	2/26/2013	Granted
US	PREPARATION OF N-ALKYLATED OPIATES BY REDUCTIVE AMINATION USING ASYMMETRIC HYDROGEN TRANSFER	12/668900	1/13/2010	8729266	5/20/2014	Granted
US	IMPROVED PROCESS FOR THE REDUCTIVE ALKYLATION OF NORMORPHINANS	12/706909	2/17/2010	8431701	4/30/2013	Granted
US	METHOD FOR THE PREPARATION OF NOVEL NEW (+) MORPHINANIUM OXIDES	12/710383	2/23/2010	8563727	10/22/2013	Granted
US	PROCESSES FOR THE PREPARATION OF NEW MIRROR IMAGE ENANTIOMERS OF MORPHINANIUM QUATERNARY SALTS	12/710379	2/23/2010	8436174	5/7/2013	Granted
US	New mirror image enantiomers of functionalized 6-hydroxy or 6-amino-morphinans	12/710390	2/23/2010	8563724	10/22/2013	Granted
US	CATALYTIC ISOMERIZATION OF AN ALLYL ALCOHOL TO A SATURATED KETONE	12/757064	4/9/2010	8293907	10/23/2012	Granted
US	CATALYTIC ISOMERIZATION OF MORPHINE DERIVATIVES TO HYDROMORPHONE DERIVATIVES	12/757098	4/9/2010	9040705	5/26/2015	Granted
US	SYNTHESIS OF 2, 4-DIMETHYLBENZHYDRYL (DMBH) RESIN AS A NEW SOLID SUPPORT FOR Fmoc-CHEMISTRY	12/773324	5/4/2010	8742028	6/3/2014	Granted
US	PREPARATION OF 6 ALPHA-AMINO MORPHINANS BY CATALYTIC HYDROGEN TRANSFER	12/797642	6/10/2010	8519133	8/27/2013	Granted
US	PREPARATION OF 6ALPHA-AMINO NORMORPHINANS BY CATALYTIC HYDROGEN TRANSFER	12/797640	6/10/2010	8471023	6/25/2013	Granted
US	NEW PURIFICATION PROCESS FOR BUPRENORPHINE USING PREPARATIVE REVERSED PHASE CHROMATOGRAPHY	12/818230	6/18/2010	8492547	7/23/2013	Granted

US	NEW 3-OXY PRODRUGS OF HYDROMORPHONE	12/833025	7/9/2010	8623888	1/7/2014	Granted
US	NEW BENZYLIC OXIDATION METHOD FOR THE PREPARATION OF 10-KETO AND 10-HYDROXY ALKALOIDS	12/876284	9/7/2010	8314237	11/20/2012	Granted
US	AN IMPROVED METHOD FOR THE PREPARATION OF HYDROCODONE FROM THEBAINE WITH REDUCED IMPURITY AND COLOR FORMATION	12/885851	9/20/2010	8399671	3/19/2013	Granted
US	A PROCESS FOR ISOMERIZING ALLYLIC ALCOHOLS TO CARBONYL COMPOUNDS	12/886621	9/21/2010	8383815	2/26/2013	Granted
US	ONE-POT PREPARATION OF HEXAHYDROISOQUINOLINES FROM AMIDES	12/889484	9/24/2010	8431705	4/30/2013	Granted
US	ONE-POT PREPARATION OF HEXAHYDROISOQUINOLINES FROM DIHYDROISOQUINOLINE	12/889502	9/24/2010	8415474	4/9/2013	Granted
US	PROCESS IMPROVEMENT FOR THE SYNTHESIS NALTREXONE METHOBROMIDE	12/529723	11/22/2010	8669366	3/11/2014	Granted
US	MICROWAVE MELT PACKAGING	13/015490	1/27/2011	8490795	7/23/2013	Granted
US	PACKAGING SOLUTIONS FOR TRANSDERMAL PATCH DISPOSAL	13/014876	1/27/2011	8925727	1/6/2015	Granted
US	CHILDPROOF STORAGE CONTAINER FOR TRANSDERMAL PATCHES	13/014896	1/27/2011	8910456	12/16/2014	Granted
US	LIQUID ADHESIVE ENCAPSULATION OF PILLS	13/015480	1/27/2011	9046403	6/2/2015	Granted
US	TIME BASED DIAL INDICATOR IN PILL CAP	13/015223	1/27/2011	8842501	9/23/2014	Granted
US	PRODUCTION OF OPIOID DRUGS BY TRANSITION METAL OR METAL COMPLEX CATALYZED REACTIONS AND IN SITU REMOVAL OF THE METAL BY METAL SCAVENGERS	13/093892	4/26/2011	8563725	10/22/2013	Granted
US	PEN-STYLE PILL DISPENSER	13/103234	5/9/2011	9016516	4/28/2015	Granted
US	ADHESIVE SECURING BLISTER PACKAGING	13/103247	5/9/2011	8342331	1/1/2013	Granted
US	A TANDEM PROCESSES FOR PREPARING N-ALKYL MORPHINANS	13/196921	8/3/2011	8703949	4/22/2014	Granted
US	N-DEMETHYLATION OF OPIATES CONTAINING A KETONE FUNCTIONAL GROUP	13/196929	8/3/2011	8624030	1/7/2014	Granted
US	MECHANICALLY SECURING BLISTER PACKAGING	13/215864	8/23/2011	8991606	3/31/2015	Granted
US	IMPROVED PROCESS, WITH INDUSTRIAL APPLICABILITY FOR THE PREPARATION OF ICH COMPLIANT SUFENTANIL BASE AND RELATED COMPOUNDS WITHOUT THE NEED FOR INDUSTRIAL CHROMATOGRAPHY	13/233227	9/15/2011	8946433	2/3/2015	Granted
US	COMPOUNDS HAVING AN ACYCLIC PORTION THAT INCLUDES AN N-N BOND AND USES THEREOF	13/319761	11/10/2011	8731655	5/20/2014	Granted

US	COMPOUNDS HAVING A CYCLIC PORTION THAT INCLUDES AN N-N BOND AND USES THEREOF	13/319771	11/10/2011	9186349	11/17/2015	Granted
US	A CONVENIENT AND EFFECTIVE WAY TO CONVERT (MINOR AMOUNT OF) ALPHA,BETA-UNSATURATED KETONE TO SATURATED KETONE IN THE FINISHING DRUG SUBSTANCE	13/294546	11/11/2011	8748611	6/10/2014	Granted
US	ADJUNCT THERAPEUTICS FOR THE INHIBITION OF TUMORIGENESIS IN TYPE II MEDIATED PHOTODYNAMIC THERAPY	13/383243	1/10/2012	8829020	9/9/2014	Granted
US	SYNTHESIS OF THE POTENTIALLY BIOLOGICALLY ACTIVE ALKALOIDS DERIVED FROM SINOMENINE	13/352668	1/18/2012	8614224	12/24/2013	Granted
US	REDUCTIVE ALKYLATION OF DIHYDROSINOMENINE AND AMINES USING HYDROGEN TRANSFER	13/491676	6/8/2012	9296699	3/29/2016	Granted
US	PRODUCTION OF KEY (+) ALKALOIDS FROM DIHYDROSINOMENINE WITHOUT THE ISOLATION OF INTERMEDIATE PRODUCTS	13/606370	9/7/2012	8624031	1/7/2014	Granted
US	ADHESIVE SECURING BLISTER PACKAGING	13/691766	12/1/2012	8627957	1/14/2014	Granted
US	ONE-POT PREPARATION OF HEXAHYDROISOQUINOLINES FROM AMIDES	13/749805	1/25/2013	8921561	12/30/2014	Granted
US	ONE POT FORMATION OF 6-BETA-NALOXOL FROM NOROXYMORPHONE	13/762431	2/8/2013	9012468	4/21/2015	Granted
US	MICROWAVE MELT PACKAGING	13/925680	6/24/2013	9005098	4/14/2015	Granted
US	New mirror image enantiomers of functionalized 6-hydroxy or 6-amino-morphinans	14/045009	10/3/2013	8946419	2/3/2015	Granted
US	ADHESIVE SECURING BLISTER PACKAGING	14/092559	11/27/2013	9120607	9/1/2015	Granted
US	ABUSE DETERRENT TABLETS FOR IMMEDIATE RELEASE WITH FUNCTIONAL BISECT	14/211307	3/14/2014	9301918	4/5/2016	Granted
US	ADJUNCT THERAPEUTICS FOR THE INHIBITION OF TUMORIGENESIS IN TYPE II MEDIATED PHOTODYNAMIC THERAPY	14/316415	6/26/2014	9518062	12/13/2016	Granted
US	ADJUNCT THERAPEUTICS FOR THE INHIBITION OF TUMORIGENESIS IN TYPE II MEDIATED PHOTODYNAMIC THERAPY	14/316443	6/26/2014	9527858	12/27/2016	Granted
US	PERMANENT LOCKING MEDICATION BOTTLE	14/488048	9/16/2014	9414989	8/16/2016	Granted
US	IMPROVED PROCESS FOR THE PREPARATION OF RADIOIODINATED 3-FLUOROPROPYL-NOR-BETA-CIT	14/496376	9/25/2014	9339565	5/17/2016	Granted
US	SYNTHESIS OF SUBSTITUTED BERBINES	14/504906	10/2/2014	9181237	11/10/2015	Granted

US	A CONVENIENT PREPARATION OF N-ALKYL MORPHINAN-6-OLS-FROM MORPHINAN -6-ONES	14/529368	10/31/2014	9499556	11/22/2016	Granted
US	A CONVENIENT OPERATION ON THE PRODUCTION OF 6 alpha-OXYCODOL FROM THEBAINE IN ONE-POT	14/533522	11/5/2014	9193737	11/24/2015	Granted
US	CATALYZED HYDROLYSIS OF NOR-MORPHINAN CARBAMATES	14/546617	11/18/2014	9127009	9/8/2015	Granted
US	PROCESS IMPROVEMENT FOR THE SYNTHESIS NALTREXONE METHOBROMIDE	14/569309	12/12/2014	9415044	8/16/2016	Granted
US	ADHESIVE SECURING BLISTER PACKAGING	14/716269	5/19/2015	9579252	2/28/2017	Granted
US	OXIDATIVE DEAROMATIZATION OF BERBINES	14/736752	6/11/2015	9593111	3/14/2017	Granted
US	AN IMPROVED PROCESS OF PREPARING TAPENTADOL	14/796069	7/10/2015	9556108	1/31/2017	Granted
US	BUPRENORPHINE STEP 3 YIELD INCREASED BY RECYCLING ALKALOIDS IN THE FILTRATE FROM A PREVIOUS BATCH	12/586856	9/29/2009	8232398	7/31/2012	Granted
US	COMPOSITION AND PROCESS FOR A SPHEROIDS OR GRANULES WITH TWO PULSE (IMMEDIATE AND DELAYED) RELEASE PROFILE	11/909270	9/21/2007	9713592	7/25/2017	Granted
US	COMPOSITIONS AND METHODS FOR PREPARING TAMPER RESISTANT PLATFORMS FOR EXTENDED SOLID DOSAGE FORMS	13/939357	7/11/2013	9730885	8/15/2017	Granted
US	Improved Stearate Composition and Method	11/154849	6/16/2005	7385068	6/10/2008	Granted
US	PROCESS IMPROVEMENT FOR THE SYNTHESIS NALTREXONE METHOBROMIDE	12/553144	9/3/2009	9040726	5/26/2015	Granted
US	SYNTHESIS OF SUBSTITUTED BERBINES	15/235312	8/12/2016			Published
US	METHYLPHENIDATE HCL TABLET FORMULATIONS PROVIDING ZERO-ORDER DRUG RELEASE	12/299944	11/7/2008			Published
US	MICROWAVE MELT FOR BLISTER CARDS	14/336357	7/21/2014			Published
US	TAMPER RESISTANT FORMULATIONS CONTAINING SODIUM BENTONITE AND PLURONICS	13/865244	4/18/2013			Published
US	TAMPER-RESISTANT IMMEDIATE RELEASE FORMULATIONS	13/865286	4/18/2013			Published
US	TAMPER-RESISTANT IMMEDIATE RELEASE FORMULATIONS	15/714137	9/25/2017			Pending
US	COMPOSITIONS AND METHODS FOR PREPARING TAMPER RESISTANT PLATFORMS FOR EXTENDED SOLID DOSAGE FORMS	15/420386	1/31/2017			Published
US	PROCESSES FOR THE LARGE SCALE MANUFACTURE OF SUFENTANIL CITRATE AND SUFENTANIL BASE	15/164483	5/25/2016			Published

US	SUSPICIOUS ORDER MONITORING PROGRAM	14/192971	2/28/2014			Pending
US	TR PAN COATER APPARATUS AND METHOD	15/568587	10/23/2017			Pending
US	SPRAY DRIED FORMULATIONS FOR THE MODIFICATION OF DRUG DISSOLUTION	14/722541	5/27/2015			Published
US	ABUSE DETERRENT IMMEDIATE RELEASE FORMULATIONS CONTAINING GLUCOMANNAN	14/788908	7/1/2015			Published
US	THREE STEP PROCESS FOR TAPENTADOL HYDROCHLORIDE	15/202670	7/6/2016			Published
US	GLUCOMANNAN CONTAINING PHARMACEUTICAL COMPOSITIONS WITH EXTENDED RELEASE AND ABUSE DETERRENT PROPERTIES	15/417541	1/27/2017			Published
US	TAMPER RESISTANT FORMULATIONS FOR ORAL SOLID EXTENDED RELEASE DOSAGE FORMS	15/464865	3/21/2017			Published