

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	ESBATECH, A NOVARTIS COMPANY LLC	10/09/2017
RECEIVING PARTY DATA		
Name:	NOVARTIS AG	
Street Address:	LICHTSTRASSE 35	
City:	BASEL	
State/Country:	SWITZERLAND	
Postal Code:	4056	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	13616267
CORRESPONDENCE DATA		
Fax Number:	(202)408-4400	
<i>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.</i>		
Phone:	617-646-1621	
Email:	leonie.shapiro@finnegan.com	
Correspondent Name:	FINNEGAN HENDERSON FARABOW GARRETT &	
Address Line 1:	DUNNER LLP	
Address Line 2:	901 NEW YORK AVE. NW	
Address Line 4:	WASHINGTON, D.C. 20001	
ATTORNEY DOCKET NUMBER:	14452.0044-00000	
NAME OF SUBMITTER:	LEONIE SHAPIRO	
SIGNATURE:	/Leonie Shapiro/	
DATE SIGNED:	01/26/2023	
Total Attachments: 16		
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ASSIGNMENT

This Assignment Agreement is entered into by and between ESBATech, a Novartis Company LLC (hereinafter "ESBATech") formerly of Wagistrasse 12, 8952 Schlieren, Switzerland (see attached Commercial Register for former names and current domicile information), a company organized under the laws of Switzerland, and NOVARTIS AG, a company incorporated in Switzerland whose address is Lichtstrasse 35, 4056 Basel, Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, ESBATech does hereby sell, assign and transfer to NOVARTIS AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of its right, title and interest for all countries of the world in and to

(1) all inventions and discoveries described in the provisional and non-provisional patent applications and patents entitled

SEE ATTACHED SCHEDULE

(2) the patents and applications identified in paragraph (1), and all patents and applications claiming priority from such patents and applications, directly or indirectly, including all national stages of any international patent and patent applications;

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the patents and applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees, or on behalf or in the name(s) of the inventor(s) of said inventions and discoveries, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the patents and applications referred to in paragraphs (1), (2), and (3) or from any patent or application from which any of the patents and applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in

paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed ESBATech if this sale, assignment and transfer had not been made.

ESBATech hereby authorizes ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

ESBATech hereby covenants and agrees that it will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE.

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect.

The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment shall be governed by the laws of Switzerland.

This Assignment is effective as from the earliest priority date as stated above.

Executed this 9th day of October, 2017.

ESBATEch, a Novartis Company LLC

BY

Patrik Maurer
Patrik Maurer, Head of Discovery Technologies

BY

Simone Pfirter
Simone Pfirter, Head NIBR General Legal Europe

Witness

Print Name:

Sabine Zeller
Lichtstrasse 35
4056 Basel
Switzerland

Witness

Print Name:

GINA KASIA MARS

Executed this _____ day of _____, 2017.

NOVARTIS AG

BY

Diana S. Brugnera
Diana S. Brugnera
Authorized signatory

BY

Giulia Ceccarelli

GIULIA CECCARELLI
AUTHORIZED SIGNATORY

Witness

Print Name:

Sabine Zeller
Lichtstrasse 35
4056 Basel
Switzerland

Witness

Print Name:

Reto Halbeisen
Reto Halbeisen
Lichtstrasse 35
4056 Basel
Switzerland

SCHEDULE

Novartis reference	Country	Date	Number
PAT903763-US-DIV	US	23 Jun 2017	2015-0080555
PAT903763-US-NP	US	05 Aug 2014	8796425
PAT903763-US-PSP	US	23 Dec 2010	61/289446
PAT903769-US-PCT	US	16 Nov 2010	7833703

PAT903772-US-PCT	US	07 Oct 2014	8853362
PAT903772-US-PCTD	US	13 Dec 2016	9518108
PAT903772-US-PCTD02	US	20 Apr 2017	2017-0107272
PAT903779-US-PSP	US	22 May 2002	60/382774
PAT903781-US-PCT	US	27 Jun 2015	201501461
PAT903781-US-PCTD	US	07 Jun 2016	201601461
PAT903781-US-PCTD02	US	07 Jun 2016	201601461
PAT903781-US-PCTD03	US	07 Jun 2016	201601461
PAT903781-US-PCTD04	US	07 Jun 2016	201601461
PAT903781-US-PCTD05	US	07 Jun 2016	201601461
PAT903781-US-PCTD06	US	07 Jun 2016	201601461
PAT903781-US-PCTD07	US	07 Jun 2016	201601461
PAT903781-US-PCTD08	US	07 Jun 2016	201601461
PAT903781-US-PCTD09	US	07 Jun 2016	201601461
PAT903781-US-PCTD10	US	07 Jun 2016	201601461
PAT903781-US-PCTD11	US	07 Jun 2016	201601461
PAT903781-US-PCTD12	US	07 Jun 2016	201601461
PAT903781-US-PCTD13	US	07 Jun 2016	201601461
PAT903781-US-PCTD14	US	07 Jun 2016	201601461
PAT903781-US-PCTD15	US	07 Jun 2016	201601461
PAT903781-US-PCTD16	US	07 Jun 2016	201601461
PAT903781-US-PCTD17	US	07 Jun 2016	201601461
PAT903781-US-PCTD18	US	07 Jun 2016	201601461
PAT903781-US-PCTD19	US	07 Jun 2016	201601461
PAT903781-US-PCTD20	US	07 Jun 2016	201601461
PAT903781-US-PCTD21	US	07 Jun 2016	201601461
PAT903781-US-PCTD22	US	07 Jun 2016	201601461
PAT903781-US-PCTD23	US	07 Jun 2016	201601461
PAT903781-US-PCTD24	US	07 Jun 2016	201601461
PAT903781-US-PCTD25	US	07 Jun 2016	201601461
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PAT903781-US-PCTD27	US	07 Jun 2016	201601461
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PAT903781-US-PCTD29	US	07 Jun 2016	201601461
PAT903781-US-PCTD30	US	07 Jun 2016	201601461
PAT903781-US-PCTD31	US	07 Jun 2016	201601461
PAT903781-US-PCTD32	US	07 Jun 2016	201601461
PAT903781-US-PCTD33	US	07 Jun 2016	201601461
PAT903781-US-PCTD34	US	07 Jun 2016	201601461
PAT903781-US-PCTD35	US	07 Jun 2016	201601461
PAT903781-US-PCTD36	US	07 Jun 2016	201601461
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PAT903781-US-PCTD39	US	07 Jun 2016	201601461
PAT903781-US-PCTD40	US	07 Jun 2016	201601461
PAT903781-US-PCTD41	US	07 Jun 2016	201601461
PAT903781-US-PCTD42	US	07 Jun 2016	201601461
PAT903781-US-PCTD43	US	07 Jun 2016	201601461
PAT903781-US-PCTD44	US	07 Jun 2016	201601461
PAT903781-US-PCTD45	US	07 Jun 2016	201601461
PAT903781-US-PCTD46	US	07 Jun 2016	201601461
PAT903781-US-PCTD47	US	07 Jun 2016	201601461
PAT903781-US-PCTD48	US	07 Jun 2016	201601461
PAT903781-US-PCTD49	US	07 Jun 2016	201601461
PAT903781-US-PCTD50	US	07 Jun 2016	201601461

PAT903781-US-NP	US	29 Jan 2009	2009-0028848
PAT903781-US-PSP	US	25 Jun 2007	60/937112
PAT903781-US-PSP02	US	12 Mar 2008	61/069057
PAT903782-US-CNT	US	28 Feb 2013	2013-0053259
PAT903782-US-PCT	US	02 Oct 2012	8280711
PAT903782-US-PSP	US	12 Mar 2007	60/906365

US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29
US 2010/0111111 A1	2010.04.29	US 2010/0111111 A1	2010.04.29

PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041
PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041
PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041
PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041
PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041
PAT903784-US-PCT	US	23 Oct 2012	8293235
PAT903784-US-PCTD	US	20 Jan 2015	8937162
PAT903784-US-PCTD02	US	14 Mar 2017	9593161
PAT903784-US-PCTD03	US	07 Apr 2016	2016-0096903
PAT903784-US-PSP	US	25 Jun 2008	61/075697
PAT903784-US-PSP02	US	24 Feb 2009	61/155041

PAT903797-US-PCT	US	18 Mar 2014	8673310
PAT903797-US-PCTD	US	23 Aug 2016	9422366
PAT903797-US-PCTD02	US	01 Sep 2016	2016-0251428
PAT903797-US-PSP	US	25 Jun 2008	61/075640
PAT903797-US-PSP02	US	26 Jun 2008	61/075956
PAT903797-US-PSP03	US	27 Jun 2008	61/076000
PAT903797-US-PSP04	US	28 Jun 2008	61/076044
PAT903797-US-PSP05	US	29 Jun 2008	61/076088
PAT903797-US-PSP06	US	30 Jun 2008	61/076132
PAT903797-US-PSP07	US	01 Jul 2008	61/076176
PAT903797-US-PSP08	US	02 Jul 2008	61/076220
PAT903797-US-PSP09	US	03 Jul 2008	61/076264
PAT903797-US-PSP10	US	04 Jul 2008	61/076308
PAT903797-US-PSP11	US	05 Jul 2008	61/076352
PAT903797-US-PSP12	US	06 Jul 2008	61/076396
PAT903797-US-PSP13	US	07 Jul 2008	61/076440
PAT903797-US-PSP14	US	08 Jul 2008	61/076484
PAT903797-US-PSP15	US	09 Jul 2008	61/076528
PAT903797-US-PSP16	US	10 Jul 2008	61/076572
PAT903797-US-PSP17	US	11 Jul 2008	61/076616
PAT903797-US-PSP18	US	12 Jul 2008	61/076660
PAT903797-US-PSP19	US	13 Jul 2008	61/076704
PAT903797-US-PSP20	US	14 Jul 2008	61/076748
PAT903797-US-PSP21	US	15 Jul 2008	61/076792
PAT903797-US-PSP22	US	16 Jul 2008	61/076836
PAT903797-US-PSP23	US	17 Jul 2008	61/076880
PAT903797-US-PSP24	US	18 Jul 2008	61/076924
PAT903797-US-PSP25	US	19 Jul 2008	61/076968
PAT903797-US-PSP26	US	20 Jul 2008	61/077012
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PAT903797-US-PSP28	US	22 Jul 2008	61/077100
PAT903797-US-PSP29	US	23 Jul 2008	61/077144
PAT903797-US-PSP30	US	24 Jul 2008	61/077188
PAT903797-US-PSP31	US	25 Jul 2008	61/077232
PAT903797-US-PSP32	US	26 Jul 2008	61/077276
PAT903797-US-PSP33	US	27 Jul 2008	61/077320
PAT903797-US-PSP34	US	28 Jul 2008	61/077364
PAT903797-US-PSP35	US	29 Jul 2008	61/077408
PAT903797-US-PSP36	US	30 Jul 2008	61/077452
PAT903797-US-PSP37	US	31 Jul 2008	61/077496
PAT903797-US-PSP38	US	01 Aug 2008	61/077540
PAT903797-US-PSP39	US	02 Aug 2008	61/077584
PAT903797-US-PSP40	US	03 Aug 2008	61/077628
PAT903797-US-PSP41	US	04 Aug 2008	61/077672
PAT903797-US-PSP42	US	05 Aug 2008	61/077716
PAT903797-US-PSP43	US	06 Aug 2008	61/077760
PAT903797-US-PSP44	US	07 Aug 2008	61/077804
PAT903797-US-PSP45	US	08 Aug 2008	61/077848
PAT903797-US-PSP46	US	09 Aug 2008	61/077892
PAT903797-US-PSP47	US	10 Aug 2008	61/077936
PAT903797-US-PSP48	US	11 Aug 2008	61/077980
PAT903797-US-PSP49	US	12 Aug 2008	61/078024
PAT903797-US-PSP50	US	13 Aug 2008	61/078068
PAT903797-US-PSP51	US	14 Aug 2008	61/078112
PAT903797-US-PSP52	US	15 Aug 2008	61/078156
PAT903797-US-PSP53	US	16 Aug 2008	61/078200
PAT903797-US-PSP54	US	17 Aug 2008	61/078244
PAT903797-US-PSP55	US	18 Aug 2008	61/078288
PAT903797-US-PSP56	US	19 Aug 2008	61/078332
PAT903797-US-PSP57	US	20 Aug 2008	61/078376
PAT903797-US-PSP58	US	21 Aug 2008	61/078420
PAT903797-US-PSP59	US	22 Aug 2008	61/078464
PAT903797-US-PSP60	US	23 Aug 2008	61/078508
PAT903797-US-PSP61	US	24 Aug 2008	61/078552
PAT903797-US-PSP62	US	25 Aug 2008	61/078596
PAT903797-US-PSP63	US	26 Aug 2008	61/078640
PAT903797-US-PSP64	US	27 Aug 2008	61/078684
PAT903797-US-PSP65	US	28 Aug 2008	61/078728
PAT903797-US-PSP66	US	29 Aug 2008	61/078772
PAT903797-US-PSP67	US	30 Aug 2008	61/078816
PAT903797-US-PSP68	US	31 Aug 2008	61/078860
PAT903797-US-PSP69	US	01 Sep 2008	61/078904
PAT903797-US-PSP70	US	02 Sep 2008	61/078948
PAT903797-US-PSP71	US	03 Sep 2008	61/078992
PAT903797-US-PSP72	US	04 Sep 2008	61/079036
PAT903797-US-PSP73	US	05 Sep 2008	61/079080
PAT903797-US-PSP74	US	06 Sep 2008	61/079124
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PAT903797-US-PSP84	US	16 Sep 2008	61/079564
PAT903797-US-PSP85	US	17 Sep 2008	61/079608
PAT903797-US-PSP86	US	18 Sep 2008	61/079652
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PAT903797-US-PSP92	US	24 Sep 2008	61/079916
PAT903797-US-PSP93	US	25 Sep 2008	61/079960
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PAT903797-US-PSP95	US	27 Sep 2008	61/080048
PAT903797-US-PSP96	US	28 Sep 2008	61/080092
PAT903797-US-PSP97	US	29 Sep 2008	61/080136
PAT903797-US-PSP98	US	30 Sep 2008	61/080180
PAT903797-US-PSP99	US	01 Oct 2008	61/080224
PAT903797-US-PSP100	US	02 Oct 2008	61/080268
PAT903797-US-PSP101	US	03 Oct 2008	61/080312
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PAT903797-US-PSP110	US	12 Oct 2008	61/080708
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PAT903797-US-PSP126	US	28 Oct 2008	61/081412
PAT903797-US-PSP127	US	29 Oct 2008	61/081456
PAT903797-US-PSP128	US	30 Oct 2008	61/081500
PAT903797-US-PSP129	US	31 Oct 2008	61/081544
PAT903797-US-PSP130	US	01 Nov 2008	61/081588
PAT903797-US-PSP131	US	02 Nov 2008	61/081632
PAT903797-US-PSP132	US	03 Nov 2008	61/081676
PAT903797-US-PSP133	US	04 Nov 2008	61/081720
PAT903797-US-PSP134	US	05 Nov 2008	61/081764
PAT903797-US-PSP135	US	06 Nov 2008	61/081808
PAT903797-US-PSP136	US	07 Nov 2008	61/081852
PAT903797-US-PSP137	US	08 Nov 2008	61/081896
PAT903797-US-PSP138	US	09 Nov 2008	61/081940
PAT903797-US-PSP139	US	10 Nov 2008	61/081984
PAT903797-US-PSP140	US	11 Nov 2008	61/082028
PAT903797-US-PSP141	US	12 Nov 2008	61/082072
PAT903797-US-PSP142	US	13 Nov 2008	61/082116
PAT903797-US-PSP143	US	14 Nov 2008	61/082160
PAT903797-US-PSP144	US	15 Nov 2008	61/082204
PAT903797-US-PSP145	US	16 Nov 2008	61/082248
PAT903797-US-PSP146	US	17 Nov 2008	61/082292
PAT903797-US-PSP147	US	18 Nov 2008	61/082336
PAT903797-US-PSP148	US	19 Nov 2008	61/082380
PAT903797-US-PSP149	US	20 Nov 2008	61/082424
PAT903797-US-PSP150	US	21 Nov 2008	61/082468
PAT903797-US-PSP151	US	22 Nov 2008	61/082512
PAT903797-US-PSP152	US	23 Nov 2008	61/082556
PAT903797-US-PSP153	US	24 Nov 2008	61/082600
PAT903797-US-PSP154	US	25 Nov 2008	61/082644
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PAT903797-US-PSP158	US	29 Nov 2008	61/082820
PAT903797-US-PSP159	US	30 Nov 2008	61/082864
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PAT903797-US-PSP161	US	02 Dec 2008	61/082952
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PAT903797-US-PSP163	US	04 Dec 2008	61/083040
PAT903797-US-PSP164	US	05 Dec 2008	61/083084
PAT903797-US-PSP165	US	06 Dec 2008	61/083128
PAT903797-US-PSP166	US	07 Dec 2008	61/083172
PAT903797-US-PSP167	US	08 Dec 2008	61/083216
PAT903797-US-PSP168	US	09 Dec 2008	61/083260
PAT903797-US-PSP169	US	10 Dec 2008	61/083304
PAT903797-US-PSP170	US	11 Dec 2008	61/083348
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PAT903797-US-PSP184	US	25 Dec 2008	61/083964
PAT903797-US-PSP185	US	26 Dec 2008	61/084008
PAT903797-US-PSP186	US	27 Dec 2008	61/084052
PAT903797-US-PSP187	US	28 Dec 2008	61/084096
PAT903797-US-PSP188	US	29 Dec 2008	61/084140
PAT903797-US-PSP189	US	30 Dec 2008	61/084184
PAT903797-US-PSP190	US	31 Dec 2008	61/084228
PAT903797-US-PSP191	US	01 Jan 2009	61/084272
PAT903797-US-PSP192	US	02 Jan 2009	61/084316
PAT903797-US-PSP193	US	03 Jan 2009	61/084360
PAT903797-US-PSP194	US	04 Jan 2009	61/084404
PAT903797-US-PSP195	US	05 Jan 2009	61/084448
PAT903797-US-PSP196	US	06 Jan 2009	61/084492
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PAT903797-US-PSP198	US	08 Jan 2009	61/084580
PAT903797-US-PSP199	US	09 Jan 2009	61/084624
PAT903797-US-PSP200	US	10 Jan 2009	61/084668
PAT903797-US-PSP201	US	11 Jan 2009	61/084712
PAT903797-US-PSP202	US	12 Jan 2009	61/084756
PAT903797-US-PSP203	US	13 Jan 2009	61/084800
PAT903797-US-PSP204	US	14 Jan 2009	61/084844
PAT903797-US-PSP205	US	15 Jan 2009	61/084888
PAT903797-US-PSP206	US	16 Jan 2009	61/084932
PAT903797-US-PSP207	US	17 Jan 2009	61/084976
PAT903797-US-PSP208	US	18 Jan 2009	61/085020
PAT903797-US-PSP209	US	19 Jan 2009	61/085064
PAT903797-US-PSP210	US	20 Jan 2009	61/085108
PAT903797-US-PSP211	US	21 Jan 2009	61/085152
PAT903797-US-PSP212	US	22 Jan 2009	61/085196
PAT903797-US-PSP213	US	23 Jan 2009	61/085240
PAT903797-US-PSP214	US	24 Jan 2009	61/085284
PAT903797-US-PSP215	US	25 Jan 2009	61/085328
PAT903797-US-PSP216	US	26 Jan 20	

PAT903921-US-DIV	US	21 Mar 2017	9598487
PAT903921-US-DIV02	US	23 Jun 2016	2016-0176959
PAT903921-US-NP	US	01 Oct 2013	8545849
PAT903921-US-PSP	US	22 Oct 2011	61/405798
PAT903921-US-PSP02	US	11 May 2011	61/484749

PAT903970-US-PSP	US	15 Aug 2011	61/523,604
------------------	----	-------------	------------

PAT905045-US-NP	US	25 Apr 2013	2013-0101586
PAT905045-US-PSP	US	20 Oct 2011	61/549482

PAT905076-US-DIV	US	12 Feb 2015	2015-0044213
PAT905076-US-DIV02	US	15 Dec 2016	2016-0362483