PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3461214

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CONFIRMATORY PATENT RIGHTS AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
OPKO HOLDINGS, INC.	12/19/2014

RECEIVING PARTY DATA

Name:	OPKO IRELAND GLOBAL HOLDINGS, LTD.	
Street Address:	10 MARKET ST., #721	
Internal Address:	CAMANA BAY	
City:	GRAND CAYMAN	
State/Country:	CAYMAN ISLANDS	
Postal Code:	KY1-9006	

PROPERTY NUMBERS Total: 12

Property Type	Number
Application Number:	11815845
Application Number:	12162914
Application Number:	12738293
Application Number:	12670834
Application Number:	13388476
Application Number:	13576426
Application Number:	10615797
Application Number:	12828462
Application Number:	14065162
Application Number:	13270358
Application Number:	14603084
Application Number:	14224040

CORRESPONDENCE DATA

Fax Number: (312)474-0448

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.

Email: anagelberg@marshallip.com

Correspondent Name: MARSHALL, GERSTEIN & BORUN LLP

Address Line 1: 233 SOUTH WACKER DRIVE

Address Line 2: SUITE 6300

REEL: 036227 FRAME: 0134

PATENT

503414580

Address Line 4: CH	ICAGO, ILLINOIS 60606
ATTORNEY DOCKET NUMBER:	31138/G1000
NAME OF SUBMITTER:	AUDREY NAGELBERG
SIGNATURE:	/Audrey Nagelberg/
DATE SIGNED:	07/29/2015
Total Attachments: 7	
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CONFIRMATORY PATENT RIGHTS AGREEMENT

This confirmatory patent rights agreement ("Agreement"), effective as <u>July 21</u>, 2015 ("Effective Date"), is by and between Cytochroma Development, Inc., Cytochroma Cayman Islands, Ltd., OPKO IP Holdings, Inc. and OPKO Holdings, Inc. (collectively, the "Original Entities") and OPKO Ireland Global Holdings, Ltd. ("OPKO Ireland").

WHEREAS, Cytochroma Development, Inc. was the owner of the Patent Rights (defined below);

WHEREAS, Cytochroma Development, Inc. was dissolved on September 17, 2014 and all assets and liabilities of Cytochroma Development, Inc., including the Patent Rights, were distributed to its sole shareholder, Cytochroma Cayman Islands, Ltd.;

WHEREAS, on December 17, 2014, Cytochroma Cayman Islands, Ltd. paid a dividend to its sole shareholder, OPKO IP Holdings, Inc., which resulted in the distribution of all of Cytochroma Cayman Islands, Ltd. assets, including the Patent Rights, to its sole shareholder, OPKO IP Holdings, Inc.; thereafter on December 23, 2014 Cytochroma Cayman Islands, Ltd. dissolved and was struck from the Companies Register on March 31, 2015;

WHEREAS, on December 18, 2014 OPKO IP Holdings, Inc. paid a dividend to its sole shareholder, OPKO Holdings, Inc. of all of its assets, including the Patent Rights; thereafter on December 23, 2014 OPKO IP Holdings, Inc. dissolved and was struck from the Companies Register on March 31, 2015;

WHEREAS, on December 19, 2014, OPKO Holdings, Inc. paid a dividend to OPKO Ireland of all assets it received from OPKO IP Holdings, including the Patent Rights;

WHEREAS, the Original Entities and OPKO Ireland, affiliates of their ultimate parent OPKO Health Inc. would like to memorialize the transfer of the Patent Rights that occurred in the prior transactions ("Events") through this Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby agreed, the Original Entities hereby agree:

- 1. The Original Entities acknowledge and agree that the Events resulted in OPKO Ireland's ownership of all right, title and interest in and to the patents and patent applications listed in Exhibit A; all United States, PCT and foreign patent applications claiming priority thereto; all continuations, continuations-in-parts and divisionals of any of the foregoing; patents issuing on any of the foregoing; and reissues, reexaminations, term extensions and supplementary protection certificates of any of the foregoing, together with all rights and privileges granted and secured thereby, including the full right of priority, the right to claim priority and the right sue for past, present and/or future infringement and/or misappropriation of any of the foregoing (collectively, the "Patent Rights").
- 2. The terms and covenants of this Agreement shall inure to the benefit of OPKO Ireland, its successors and assigns and other legal representatives, and shall be binding upon the Original Entities, their successors, legal representatives and assigns.

IN WITNESS WHEREOF, the Original Entities have caused this valid and binding agreement to be effective as of the Effective Date.

CYTOCHROMA DEVELOPMENT, INC. and by its successor, CYTOCHROMA CAYMAN and by its successor, OPKO IP HOLDINGS, INC. and by its successor, OPKO HOLDINGS, INC. and by its successor, OPKO IRELAND GLOBAL	
By:	
Name: Steven D. Rubin	
Title: Director, OPKO Ireland Global Holdings, I	nc.
Date: 7/2/1/5	
Accepted by, OPKO IRELAND GLOBAL HOLDIN	IGS, LTD.
By:	······
Name: Steven D. Rubin	
Title: Director, OPKO Ireland Global Holdings, I	nc.
Date: 7/2/1/5	

Exhibit A

Country	Inventor	Title	Appl No	Filed	Patent No	Granted
AUSTRIA	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
aci cu :: .	2025577	ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	12-Jul-06
BELGIUM	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS			1013002	12 34: 00
BRAZIL	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	PI9812223-1	18-Sep-98	000000	45 1 10
CANADA	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	2303820	18-Sep-98	2303820	15-Jun-10
CHINA	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98809233.6	18-Sep-98	ZL98809233.6	9-Aug-06
CYPRUS	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	12-Jul-06
DENMARK	ROBERTS ET AL.	PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
EUROPEAN PATENT		ALUMINIUM FREE MIXED METAL COMPOUNDS AS				
OFFICE	ROBERTS ET AL.	PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
FINLAND	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
		ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	12-Jul-06
FRANCE	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	36344033.7			
GERMANY	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	69835217.3	12-Jul-06
GREAT BRITAIN	ROBERTS ET AL.	PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
GREECE	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
HUNGARY	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	P0004527	18-Sep-98	227666	18-May-12
IRELAND	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-jul-06
		ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	12-Jul-06
ITALY	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS			4149659	4-Jul-08
JAPAN	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	2000-512558	18-Sep-98		
LUXEMBOURG	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	98944055.7	18-Sep-98	1015002	12-Jul-06
MEXICO	ROBERTS ET AL.	PHOSPHATE BINDERS	A/2000/002379	18-Sep-98	240120	8-Sep-06
MONACO	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-0
NETHERLANDS	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-06
NEW ZEALAND	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	503136	18-Sep-98	503136	9-Aug-0
PATENT		ATTAL COLUMN AND ADVISOR OF CHILDUATES AS				
COOPERATION TREATY	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	GB98/02834	18-Sep-98		
POLAND	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	P-339079	18-Sep-98	194211	10-Oct-0
PORTUGAL	ROBERTS ET AL.	ALUMINIUM FREE MIXED METAL COMPOUNDS AS PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-0
SOUTH KOREA	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	10-2000-7002892	18-Sep-98	P0823565	14-Apr-0
		ALUMINIUM FREE MIXED METAL COMPOUNDS AS				12-Jul-0
SPAIN	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	
SWEDEN	ROBERTS ET AL.	PHOSPHATE BINDERS ALUMINIUM FREE MIXED METAL COMPOUNDS AS	98944055.7	18-Sep-98	1015002	12-Jul-0
SWITZERLAND	ROBERTS ET AL.	PHOSPHATE BINDERS	98944055.7	18-Sep-98	1015002	12-Jul-C
UNITED STATES	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	09/508923	19-Jun-00	6926912	9-Aug-0
ARGENTINA	NEWTON ET AL.	PHARMACEUTICALLY ACTIVE COMPOUNDS, THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM, AND THEIR USE	60100490	10-Feb-06		

Country	Inventor	Title	Appl No	Filed	Patent No	Granted
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS	2006213922	9-Feb-06	2006213922	12-Jan-12
AUSTRALIA	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE PHARMACEUTICALLY ACTIVE COMPOUNDS,	2000213922	3-1 65-00	2000213322	12 3011 42
		THEIR MANUFACTURE, COMPOSITIONS				
BRAZIL	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	PI0606923-1	9-Feb-06		
<u></u>	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PHARMACEUTICALLY ACTIVE PHOSPHATE				
		BINDERS, THEIR MANUFACTURE,		0.5.1.05		
CANADA	NEWTON ET AL.	COMPOSITIONS CONTAINING THEM AND THEIR	2597124	9-Feb-06		
		PHARMACEUTICALLY ACTIVE COMPOUNDS, THEIR MANUFACTURE, COMPOSITIONS				
CHILE	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	300-2006	9-Feb-06	47039	6-Apr-11
CHIEL	NEW TOTAL ZI / 1.5	PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS				
CHINA	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	200680004634.8	9-Feb-06		
EUROPEAN		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
PATENT	NEWTON ET AL.	THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM, AND THEIR USE	6709690.9	9-Feb-06		
OFFICE	NEWTON ET AL.	PHARMACEUTICALLY ACTIVE COMPOUNDS,	0703030.3	3,600		
		THEIR MANUFACTURE, COMPOSITIONS				
INDIA	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	6678/DELNP/2007	9-Feb-06		
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS	101110	9-Feb-06		
ISRAEL	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	184448	9-reb-06		
		PHARMACEUTICALLY ACTIVE PHOSPHATE BINDERS, THEIR MANUFACTURE,				
JAPAN	NEWTON ET AL.	COMPOSITIONS CONTAINING THEM AND	2007-554635	9-Feb-06	5328157	2-Aug-13
371711	112111111111111111111111111111111111111	PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS				
MALAYSIA NEWTON ET A	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	P120060564	9-Feb-06	MY-150070-A	29-Nov-13
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
MENICO	NEWTON ET AL	THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM, AND THEIR USE	A/2007/009688	9-Feb-06	306426	7-Jan-13
MEXICO	NEWTON ET AL.	PHARMACEUTICALLY ACTIVE COMPOUNDS,	7,42007,700000			
		THEIR MANUFACTURE, COMPOSITIONS				
NEW ZEALAND	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	556600	9-Feb-06	556600	10-Jun-10
		PHARMACEUTICALLY ACTIVE COMPOUNDS,		-		
		TH IR MANUFACTURE, COMPOSITIONS	20074504	9-Feb-06		
NORWAY	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	20074504	3-rep-00		
PATENT COOPERATION		PHARMACEUTICALLY ACTIVE COMPOUNDS, THEIR MANUFACTURE, COMPOSITIONS				
TREATY	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	GB06/00452	9-Feb-06		
1112777		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS			0.00000	40 lun 4
RUSSIA	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	2007133720	9-Feb-06	2420297	10-Jun-1
		PHARMACEUTICALLY ACTIVE PHOSPHATE				
		BINDERS, THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM AND THEIR				
SINGAPORE	NEWTON ET AL.	USE USE	200705872-0	9-Feb-06	134663	30-Dec-1
SING/ II ONE		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS			2027/25450	25.5-6.0
SOUTH AFRICA	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	2007/06160	9-Feb-06	2007/06160	25-Feb-0
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
COLUMN KOREA	NEWTON ET AL	THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM, AND THEIR USE	10-2007-7017214	9-Feb-06		
SOUTH KOREA	NEWTON ET AL.	PHARMACEUTICALLY ACTIVE COMPOUNDS,	10 200, 101.1			
		THEIR MANUFACTURE, COMPOSITIONS				
TAIWAN	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	95104355	9-Feb-06	1461201	21-Nov-1
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
		THEIR MANUFACTURE, COMPOSITIONS	100550	9-Feb-06		
THAILAND	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	108559	3-ren-00		
HAUTED ADAD		PHARMACEUTICALLY ACTIVE COMPOUNDS, THEIR MANUFACTURE, COMPOSITIONS				
UNITED ARAB EMIRATES	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	P716/07	9-Feb-06		
LIVIIIAILS	INCANTOIN ET ME.	PHARMACEUTICALLY ACTIVE COMPOUNDS,				
UNITED		THEIR MANUFACTURE, COMPOSITIONS				
STATES	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	11/815845	8-Aug-07		
		GRANULAR MATERIAL COMPRISING WATER-	D070400440	24 1 07	,]	
ARGENTINA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	P070100413	31-Jan-07		
AUSTRALIA	PENNELL ET AL.	GRANULAR MATERIAL COMPRISING WATER-	2007211375	30-Jan-07	2007211375	12-Dec-1

Country	Inventor	Title	Appi No	Filed	Patent No	Granted
		INSOLUBLE INORGANIC PHOSPHATE BINDERS				
		GRANULAR MATERIAL COMPRISING WATER-				
BRAZIL	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	PI0706763-1	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-		20.1 07		
CANADA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2633762	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-	2007-0253	31-Jan-07	48709	30-Oct-12
CHILE	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS GRANULAR MATERIAL COMPRISING WATER-	2007-0255	31 3011 07	40703	
CHINA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	200780004102.9	30-Jan-07	200780004102.9	9-Jul-14
CHIA	(LITTLE L) / LL	GRANULAR MATERIAL COMPRISING WATER-				
COSTA RICA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	10185	30-Jan-07		
EUROPEAN						
PATENT	55401511 5T 41	GRANULAR MATERIAL COMPRISING WATER-	7705074.8	30-Jan-07		
OFFICE	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS GRANULAR MATERIAL COMPRISING WATER-	7703074.0	30 3411 07		···
HONG KONG	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	9100675.3	30-Jan-07		
HONG KONG	T CIVIVELLE LI 7 (C)	GRANULAR MATERIAL COMPRISING WATER-				
INDIA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	6172/DELNP/2008	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-		00 1- 07		
ISRAEL	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	192263	30-Jan-07		
	DEALES FT 41	GRANULAR MATERIAL COMPRISING WATER- INSOLUBLE INORGANIC PHOSPHATE BINDERS	2008-552877	30-Jan-07	5457681	17-Jan-14
JAPAN	PENNELL ET AL.	GRANULAR MATERIAL COMPRISING WATER-	2008-332877	30 3411 07	3.07.552	
MALAYSIA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	PI20070135	29-Jan-07		
WALATSIA	, Elvidere et 7tes	GRANULAR MATERIAL COMPRISING WATER-				
MEXICO	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	A/2008/009415	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-	500.400	20 1 07	569408	11-Jul-11
NEW ZEALAND	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	569408	30-Jan-07	569408	11-101-11
NORWAY	DENING! I ET AL	GRANULAR MATERIAL COMPRISING WATER- INSOLUBLE INORGANIC PHOSPHATE BINDERS	20083682	30-Jan-07		
NORWAY PATENT	PENNELL ET AL.	INSOLUBLE INORGANIC PROSPILATE BINDERS	25005002			
COOPERATION		GRANULAR MATERIAL COMPRISING WATER-				
TREATY	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	GB07/00308	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-			0.407550	27 0 11
RUSSIA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2008135130	30-Jan-07	2437650	27-Dec-11
		GRANULAR MATERIAL COMPRISING WATER-	200804920-7	30-Jan-07	143916	15-Mar-11
SINGAPORE	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS GRANULAR MATERIAL COMPRISING WATER-	200804320-7	30 3411 07	113320	
SOUTH AFRICA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2008/05903	30-Jan-07	2008/05903	28-Oct-09
300 III / III III I	1 2777222 27732	GRANULAR MATERIAL COMPRISING WATER-				1
SOUTH KOREA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	10-2008-7015878	30-Jan-07		
		GRANULAR MATERIAL COMPRISING WATER-	05400345	20 lan 07	1220450	11-Aug-10
TAIWAN	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	96103315	29-Jan-07	1328459	11-Aug-10
T11411 4415	DENING!! ET A!	GRANULAR MATERIAL COMPRISING WATER- INSOLUBLE INORGANIC PHOSPHATE BINDERS	701000410	30-Jan-07		
THAILAND UNITED	PENNELL ET AL.	WATER-INSOLUBLE, IRON-CONTAINING MIXED	70200120	1		
STATES	PENNELL ET AL.	METAL, GRANULAR MATERIAL	12/162914	31-Jul-08		
3771123		MIXED METAL COMPOUNDS FOR TREATMENT OF				
AUSTRALIA	NEWTON ET AL.	HYPERPHOS PHATAEMIA	2008313466	15-Oct-08	2008313466	5-Feb-15
		MIXED METAL COMPOUNDS FOR TREATMENT OF	DI0047000 F	15 Oct 09		
BRAZIL	NEWTON ET AL.	HYPERPHOS PHATAEMIA	PI0817889-5	15-Oct-08		
644454	NEWTON ET AL	MIXED METAL COMPOUNDS FOR TREATMENT OF HYPERPHOS PHATAEMIA	2699576	15-Oct-08		
CANADA	NEWTON ET AL.	MIXED METAL COMPOUNDS FOR TREATMENT OF	20333.0			
CHINA	NEWTON ET AL.	HYPERPHOS PHATAEMIA	200880111989.6	15-Oct-08	L200880111989.6	30-Oct-13
EUROPEAN	112111011111111111111111111111111111111					
PATENT		MIXED METAL COMPOUNDS FOR TREATMENT OF		45.0.00		
OFFICE	NEWTON ET AL.	HYPERPHOS PHATAEMIA	8806618.8	15-Oct-08		
	Atmia imos i mm	MIXED METAL COMPOUNDS FOR TREATMENT OF	10108882.2	15-Oct-08		
HONG KONG	NEWTON ET AL.	HYPERPHOS PHATAEMIA MIXED METAL COMPOUNDS FOR TREATMENT OF	10100002.2	15 500 50		
INDIA	NEWTON ET AL.	HYPERPHOS PHATAEMIA	2180/DELNP/2010	15-Oct-08		
HANN.	THE TOTAL TALL	MIXED METAL COMPOUNDS FOR TREATMENT OF				
ISRAEL	NEWTON ET AL.	HYPERPHOS PHATAEMIA	204552	15-Oct-08		<u> </u>
		MIXED METAL COMPOUNDS FOR TREATMENT OF	2015 -2015	45.0.00	E633570	2 0 0 1
JAPAN	NEWTON ET AL.	HYPERPHOS PHATAEMIA	2010-529446	15-Oct-08	5622579	3-Oct-1
	AUGUATION	MIXED METAL COMPOUNDS FOR TREATMENT OF	A/2010/004089	15-Oct-08		
MEXICO	NEWTON ET AL.	HYPERPHOS PHATAEMIA				
NEW ZEALAND	NEWTON ET AL.	MIXED METAL COMPOUNDS FOR TREATMENT OF	583969	15-Oct-08	583969	3-Sep-1

Country	Inventor	Title	Appl No	Filed	Patent No	Granted
		HYPERPHOS PHATAEMIA				
PATENT						
COOPERATION		MIXED METAL COMPOUNDS FOR TREATMENT OF				
TREATY	NEWTON ET AL.	HYPERPHOS PHATAEMIA	GB08/03509	15-Oct-08		
		MIXED METAL COMPOUNDS FOR TREATMENT OF	2010/01720	15 0-4 00	2010/01770	3F May 11
SOUTH AFRICA	NEWTON ET AL.	HYPERPHOS PHATAEMIA MIXED METAL COMPOUNDS FOR TREATMENT OF	2010/01720	15-Oct-08	2010/01720	25-May-11
SOUTH KOREA	NEWTON ET AL.	HYPERPHOS PHATAEMIA	10-2010-7007540	15-Oct-08		
UNITED	THE TOTAL CONTROL OF THE TOTAL	MIXED METAL COMPOUNDS FOR TREATMENT OF				
STATES	NEWTON ET AL.	HYPERPHOSPHATAEMIA	12/738293	16-Apr-10		
BRAZIL	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	PI0814304-8	24-Jul-08		
CHINA	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	200880025493.7	24-Jul-08	200880025493.7	6-Mar-13
EUROPEAN	NEWTON LT AL.	WINED WILLIAE COMI GONES GSED AS ANTACIOS	20000025-155.7	2134.00	20000001010	0 25
PATENT						İ
OFFICE	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	8776045	24-Jul-08		
HONG KONG	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	10108881.3	24-Jul-08		
IADAN	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	2010-517482	24-Jul-08		
JAPAN PATENT	NEWTON ET AL.	MIXED WETAL COMPOUNDS USED AS ANTACIDS	2010-317482	24-301-08		
COOPERATION						
TREATY	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	GB08/02533	24-Jul-08		
RUSSIA	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	2010106856	24-Jul-08	2510265	27-Mar-14
SOUTH KOREA	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	10-2010-7001670	24-Jul-08		
UNITED	NEWTON ET AL.	WINED WILLIAE CONFOUNDS USED AS ANTACIDS	10-2010 7001070	24 301 00		
STATES	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	12/670834	26-Jan-10		
	APPLEWHITE ET					
ARGENTINA	AL.	METHOD	P100102697	26-Jul-10		
CUINIA	APPLEWHITE ET	METHOD	201080040879.2	2-Aug-10		
CHINA EUROPEAN	AL.	METHOD	201000040873.2	2-Aug-10		
PATENT	APPLEWHITE ET					
OFFICE	AL.	'ANGENTIAL FILTRATION PROCESS	10739987.5	2-Aug-10		
	APPLEWHITE ET		1000/01/540/2012	2.410		
INDIA	AL. APPLEWHITE ET	METHOD	1900/CHENP/2012	2-Aug-10		
JAPAN	AL.	METHOD	2012-523389	2-Aug-10		
PATENT						
COOPERATION	APPLEWHITE ET					
TREATY	AL.	METHOD	PCT/GB10/51271	2-Aug-10		
TAIWAN	APPLEWHITE ET AL.	METHOD	99122681	9-Jul-10		
UNITED	APPLEWHITE ET	WEIROD	33122081	3 34, 10		
STATES	AL.	METHOD	13/388476	30-Apr-12		
	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
AUSTRALIA	AL.	COMPOUNDS AND XANTHAN	2011212254	3-Feb-11		
BRAZIL	APPLEWHITE ET AL.	COMPOSITION COMPRISING MIXED METAL COMPOUNDS AND XANTHAN	R112012019564-6	3-Feb-11		
DIAZIL	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
CANADA	AL.	COMPOUNDS AND XANTHAN	2788401	3-Feb-11		
	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL		25144		
CHINA	AL.	COMPOUNDS AND XANTHAN	201180011542.3	3-Feb-11		-
EUROPEAN PATENT	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
OFFICE	AL.	COMPOUNDS AND XANTHAN	11702693	3-Feb-11		
	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
HONG KONG	AL.	COMPOUNDS AND XANTHAN	13106596	3-Feb-11		
INIDIA	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL	7515/CHENP/2012	3-Feb-11		
INDIA	AL. APPLEWHITE ET	COMPOUNDS AND XANTHAN COMPOSITION COMPRISING MIXED METAL	1313/CHEMP/2012	2-LGD-TT		-
JAPAN	AL.	COMPOSITION COMPRISING MIXED METAL	2012-551683	3-Feb-11		
PATENT						
COOPERATION	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
TREATY	AL.	COMPOUNDS AND XANTHAN	PCT/GB11/50185	3-Feb-11		
CINCARORE	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL COMPOUNDS AND XANTHAN	201205691-7	3-Feb-11		
SINGAPORE	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL	201203031 /	5 105 11	1	
	AL.	COMPOUNDS AND XANTHAN	10-2012-7022145	3-Feb-11		1

Country	Inventor	Title	Appl No	Filed	Patent No	Granted
UNITED	APPLEWHITE ET	COMPOSITION COMPRISING MIXED METAL				
STATES	AL.	COMPOUNDS AND XANTHAN GUM	13/576426	13-Mar-13		
AUSTRIA	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
BELGIUM	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
004711	BODEDTC ET AL	METAL COMPOUNDS, MIXED OR SULPHATED, AS	DI0045334 7	10.5== 00		
BRAZIL	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	PI9816221-7	18-Sep-98		
CHINA	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	200610092802.5	18-Sep-98	200610092802.5	4-Apr-12
CYPRUS	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	6013811.2	18-Sep-98	1759704	1-Dec-10
DENMARK	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
EUROPEAN						
PATENT		METAL COMPOUNDS, MIXED OR SULPHATED, AS				
OFFICE	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
EINH AND	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS	6013811.2	18-Sep-98	1759704	1-Dec-10
FINLAND	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	0013611.2	10-36h-30	1/39/04	1-Det-10
FRANCE	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
GERMANY	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	69842028.4	1-Dec-10
GREAT	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS	0013611.2	10-3ep-38	03842028.4	1-Dec-10
BRITAIN	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
GREECE	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
HONG KONG	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	7105937.8	18-Sep-98	1098390	10-Jun-11
		METAL COMPOUNDS, MIXED OR SULPHATED, AS				
HUNGARY	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	P0900652	18-Sep-98		
IRELAND	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
ITALY	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
JAPAN	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	2007-076097	18-Sep-98	4929426	24-Feb-12
LUXEMBOURG	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
MEXICO	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	A/2006/010085	18-Sep-98	286270	4-May-11
WEXICO	NOBERIS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS	7/2000/010005	10 JCP JC	250270	4 IVIGY EX
MONACO	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	6013811.2	18-Sep-98	1759704	1-Dec-10
NETHERLANDS	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
POLAND	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	P-380111	18-Sep-98		
PORTUGAL	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
TORTOGAL	NODENTO ET AL	METAL COMPOUNDS, MIXED OR SULPHATED, AS	00100111			
SOUTH KOREA	ROBERTS ET AL.	PHOSPHATE BINDERS	10-2007-7001491	18-Sep-98	10-0997504	24-Nov-10
SPAIN	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
SWEDEN	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
- TT EVEN	ACDENIO ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS				
SWITZERLAND	ROBERTS ET AL.	PHOSPHATE BINDERS	6013811.2	18-Sep-98	1759704	1-Dec-10
UNITED STATES	ROBERTS ET AL.	METAL COMPOUNDS, MIXED OR SULPHATED, AS PHOSPHATE BINDERS	10/615797	10-Jul-03	7799351	21-Sep-10
		METAL COMPOUNDS, MIXED OR SULPHATED, AS				
JAPAN UNITED	ROBERTS ET AL.	PHOSPHATE BINDERS METAL COMPOUNDS, MIXED OR SULPHATED, AS	2007-296734	18-Sep-98		1
STATES	ROBERTS ET AL.	PHOSPHATE BINDERS	12/828462	1-Jul-10	8568792	29-Oct-13
UNITED		METAL COMPOUNDS MIXED OR SULPHATED, AS				
STATES	ROBERTS ET AL.	PHOSPHATE BINDERS	14/065162	28-Oct-13		
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
JAPAN	NEWTON ET AL.	THEIR MANUFACTURE, COMPOSITIONS CONTAINING THEM, AND THEIR USE	2013-106271	9-Feb-06		
SOUTH KOREA	NEWTON ET AL.	PHARMACEUTICALLY ACTIVE COMPOUNDS, THEIR MANUFACTURE, COMPOSITIONS	10-2013-7024757	9-Feb-06		

Country	Inventor	Title	Appl No	Filed	Patent No	Granted
		CONTAINING THEM, AND THEIR USE				
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				-
UNITED		THEIR MANUFACTURE, COMPOSITIONS				
STATES	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	13/270358	11-Oct-11		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PHARMACEUTICALLY ACTIVE PHOSPHATE				
		BINDERS, THEIR MANUFACTURE,				
SOUTH KOREA	NEWTON ET AL.	COMPOSITIONS CONTAINING THEM AND THEIR	10-2014-7009809	9-Feb-06		
		PHARMACEUTICALLY ACTIVE COMPOUNDS,				
GREAT		THEIR MANUFACTURE, COMPOSITIONS				
BRITAIN	NEWTON ET AL.	CONTAINING THEM, AND THEIR USE	502787.5	10-Feb-05		
	7,211,011,217,121	GRANULAR MATERIAL COMPRISING WATER-	002/0/12	20 . 02 00		
AUSTRALIA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2013263790	30-Jan-07		i
		GRANULAR MATERIAL COMPRISING WATER-	3022200.00	30 041, 07		
CHINA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	201310680466.6	30-Jan-07		
CHINA	T ETTTLE ET AL.	GRANULAR MATERIAL COMPRISING WATER-	201310000 100.0	30 3411 07		
COSTA RICA	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2015-0031	30-Jan-07		
COSTATICA	, civilee et Ac.	GRANULAR MATERIAL COMPRISING WATER-	2013 0031	30 3411 07		
HONG KONG	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	14109477.7	30-Jan-07		}
HONG RONG	FLIVINGECTIAL	GRANULAR MATERIAL COMPRISING WATER-	14103477.7	30-3411-07		<u> </u>
JAPAN	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	2013-237099	30-Jan-07		
JAFAN	PLINIVELE ET AL.	GRANULAR MATERIAL COMPRISING WATER-	2013-237033	30-3811-07		
MEXICO	PENNELL ET AL.	INSOLUBLE INORGANIC PHOSPHATE BINDERS	A/2015/002238	30-Jan-07		i
IVIENICO	PEININELL ET AL.	GRANULAR MATERIAL COMPRISING WATER-	A/2013/002236	30-Jaii-07		
SOUTH KOREA	DEMNIELL ET AL	INSOLUBLE INORGANIC PHOSPHATE BINDERS	10-2014-7010422	30-Jan-07		
	PENNELL ET AL.		10-2014-7010422	50-Jan-07		
UNITED STATES	DENINEL ET AL	WATER-INSOLUBLE, IRON-CONTAINING MIXED	14/603084	22-Jan-15		
***	PENNEL ET AL.	METAL, GRANULAR MATERIAL	14/003084	22-Jan-15		
GREAT	DENINIELI ET AL	CONTROCUTIONIC	C01000 0	21 1 00		
BRITAIN	PENNELL ET AL.	COMPOSITIONS	601899.8	31-Jan-06		
GREAT	DENINE	NAATERIA.	500004.5	2051.06		
BRITAIN	PENNELL ET AL.	MATERIAL	603984.6	28-Feb-06		
		MIXED METAL COMPOUNDS FOR TREATMENT OF		1		:
JAPAN	NEWTON ET AL.	HYPERPHOS PHATAEMIA	2014-047829	15-Oct-08		
GREAT		MIXED METAL COMPOUNDS FOR TREATMENT OF		100.00		
BRITAIN	NEWTON ET AL.	HYPERPHOS PHATAEMIA	720220.3	16-Oct-07		
JAPAN	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	2014-257980	24-Jul-08		
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RUSSIA	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	2013151299	24-Jul-08		
SOUTH KOREA	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	10-2015-7003291	24-Jul-08		
GREAT	INCOVION LI AL.	WILLE WE THE COMM COMES COLD AS ANTACIDS	10-2015-7005291	27 301 00		
BRITAIN	NEWTON ET AL.	MIXED METAL COMPOUNDS USED AS ANTACIDS	714670.7	27-Jul-07	1	
UNITED	APPLEWHITE ET	IVINED IVIETAL COIVIT COIVED COLD AS AIVIACIDS	,140,0./	27-341-07		
STATES	AL.	METHOD	14/224040	24-Mar-14		
GREAT	APPLEWHITE ET	IVILITIOU	14/224040	Z-4-1VId1-14		
BRITAIN	AL.	METHOD	913525.2	2 4114 00		
· · · · · · · · · · · · · · · · · · ·		INICIAOD	313323.2	3-Aug-09		
GREAT	APPLEWHITE ET	COMPOSITION	1001770 6	4 5-6 40		
BRITAIN	AL.	COMPOSITION	1001779.6	4-Feb-10	L	

RECORDED: 07/29/2015