

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	NUNC PRO TUNC ASSIGNMENT
EFFECTIVE DATE:	03/04/2013

CONVEYING PARTY DATA

Name	Execution Date
CYTOCHROMA CAYMAN ISLANDS LTD.	03/04/2013

RECEIVING PARTY DATA

Name:	OPKO IP HOLDINGS II, INC.
Street Address:	C/O MAPLES CORPORATE SERVICES
Internal Address:	PO BOX 309, UGLAND HOUSE
City:	GRAND CAYMAN
State/Country:	CAYMAN ISLANDS
Postal Code:	KY1-1104

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14690131

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	31138/43029F
NAME OF SUBMITTER:	AUDREY NAGELBERG
SIGNATURE:	/Audrey Nagelberg/
DATE SIGNED:	01/08/2016

Total Attachments: 19

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PATENT ASSIGNMENT

This assignment agreement ("Assignment") is entered into the 4th day of March, 2013 ("Effective Date") by and between **Cytochroma Cayman Islands Ltd.**, a company with a registered office at c/o Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman KY1-1104, Cayman Islands ("Assignor") and **OPKO IP Holdings II, Inc.**, a company with a registered office at c/o Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman KY1-1104, Cayman Islands ("Assignee").

For good and valuable consideration, the receipt and sufficiency of which are agreed, Assignor hereby irrevocably sells, assigns and transfers to Assignee and its successors, assigns and legal representatives, Assignor's entire right, title and interest, both legal and equitable, throughout the world, in the patents and patent applications listed in the attached Exhibits A-C, and to the inventions described therein and improvements thereof, all related patent applications throughout the world including those claiming priority thereto anywhere in the world, the right of priority, including without limitation to claim priority benefit of or to said patent applications, all continuations, divisionals and continuations-in-part of any of the foregoing, patents issuing from any of the foregoing, and reissues, reexaminations, extensions and foreign equivalents thereof and supplementary protection certificates allowed on any of the foregoing (collectively the "Patent Rights") for Assignee's own use and enjoyment, and for the use and enjoyment of its successors, assigns or other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment and sale had not been made; together with all income, royalties, damages or payments due or payable as of the Effective Date or thereafter, including, without limitation, all claims for damages by reason of past, present or future infringement or other unauthorized use of the Patent Rights, with the right to sue for, and collect the same for its own use and enjoyment, and for the use and enjoyment of its successors, assigns, or other legal representatives.

Upon the request of Assignee, the undersigned agrees to execute any and all documents and take actions reasonably requested to effectuate this Assignment and Assignee's rights in the Patent Rights, including any oath or affidavit relating thereto, to cooperate to the best of the ability of the undersigned with Assignee in preparing and executing statements and giving and producing evidence in support of the Patent Rights, and to perform any and all acts reasonably requested by Assignee to obtain, enforce and defend the Patent Rights and vest all rights therein to Assignee as fully and entirely as the same would have been held and enjoyed by the undersigned if this Assignment had not been executed.

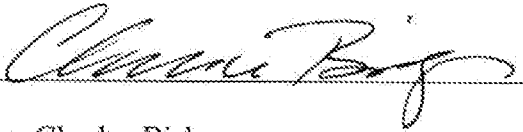
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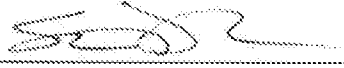
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The parties execute and deliver this Assignment by their respective signatories below.

Cytochroma Cayman Islands Ltd.

OPKO IP Holdings II, Inc.

Per: 

Per: 

Name: Charles Bishop

Name: Steven D. Rubin

Title: President and Chief Executive Officer

Title: Director


Date: March 4, 2013

Date: March 4, 2013

Witnesses:

Witnesses:









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**Exhibit A
Patents Previously Held by Cytochroma Inc.**

Application No.	Filed	Country	Issued	Patent No.	Title
2002302253	5/23/2002	Australia	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
2448933	5/23/2002	Canada	5/15/2012	2448933	A RETINOIC ACID METABOLIZING CYTOCHROME P450
02729713.4	5/23/2002	European Patent Office	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
1974/DELNP	5/23/2002	India	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
2002592495	5/23/2002	Japan	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
CA02/00758	5/23/2002	PCT	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
10/477,526	8/16/2004	United States of America	2/26/2008	7,335,756	RETINOIC ACID METABOLIZING CYTOCHROME P450
60/292,531	5/23/2001	United States of America	--	--	A RETINOIC ACID METABOLIZING CYTOCHROME P450
2431640	12/17/2001	Canada	--	--	P450RAI-2(P450 CYTOCHROME 26B),ENCODING NUCLEIC ACID MOLECULES AND METHODS AND USES THEREOF
10/433,485	11/13/2003	United States of America	10/3/2006	7,115,558	P450RAI-2(P450 CYTOCHROME 26B),ENCODING NUCLEIC ACID MOLECULES AND METHODS AND USES THEREOF
CA01/01805	12/17/2001	PCT	--	--	P450RAI-2(P450 CYTOCHROME 26B), ENCODING NUCLEIC ACID MOLECULES AND METHODS AND USES THEREOF
11/498,250	8/3/2006	United States of America	8/25/2009	7,579,329	P450RAI-2 (P450 CYTOCHROME 26B), ENCODING NUCLEIC ACID MOLECULES AND METHODS AND USES THEREOF

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Application No.	Filed	Country	Issued	Patent No.	Title
12/546,450	8/24/2009	United States of America	--	--	P450RAI-2 (P450 CYTOCHROME 26B), ENCODING NUCLEIC ACID MOLECULES AND METHODS AND USES THEREOF
2001250216	4/20/2001	Australia	--	--	A THYMUS EXPRESSED HUMAN CYTOCHROME P450(P450TEC)
01923443.4	4/20/2001	European Patent Office	--	--	A THYMUS EXPRESSED HUMAN CYTOCHROME P450(P450TEC)
2001578656	4/20/2001	Japan	--	--	A THYMUS EXPRESSED HUMAN CYTOCHROME P450(P450TEC)
2002010267	4/20/2001	Mexico	--	--	A THYMUS EXPRESSED HUMAN CYTOCHROME P450(P450TEC)
CA01/00547	4/20/2001	PCT	--	--	A THYMUS EXPRESSED HUMAN CYTOCHROME P450 (P450TEC)
10/257,378	4/4/2003	United States of America	--	--	THYMUS EXPRESSED HUMAN CYTOCHROME P450(P450TEC)
60/198,617	4/20/2000	United States of America	--	--	HUMAN CYTOCHROME P450TEC
60/208,785	6/1/2000	United States of America	--	--	HUMAN CYTOCHROME P450TEC
2484244	5/2/2003	Canada	--	--	STABLE CYTOCHROME P450 24 (CYP24) EXPRESSING CELL LINE AND METHODS AND USES THEREOF
CA03/00620	5/2/2003	PCT	--	--	STABLE CYTOCHROME P450 24 (CYP24) EXPRESSING CELL LINE AND METHODS AND USES THEREOF
10/513,302	10/3/2005	United States of America	10/30/2007	7,288,407	STABLE CYTOCHROME P450 24 (CYP24) EXPRESSING CELL LINE AND METHODS AND USES THEREOF
60/376,806	5/2/2002	United States of America	--	--	CYP24 STABLE CELL LINE FOR DRUG SCREEING
2494572	12/17/2004	Canada	--	--	CYTOCHROME P450 24 (CYP24) MONOCLONAL ANTIBODY AND METHODS AND USES THEREOF

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Application No.	Filed	Country	Issued	Patent No.	Title
11/013,435	12/17/2004	United States of America	9/23/2008	7,427,670	CYTOCHROME P450 24 (CYP24) MONOCLONAL ANTIBODY AND METHODS AND USES THEREOF
60/530,604	12/19/2003	United States of America	--	--	CYTOCHROME P450 24 (CYP24) MONOCLONAL ANTIBODY AND METHODS AND USES THEREOF
2396511	12/15/2000	Canada	--	--	CYTOCHROME P450RAI-2 AND RELATED PROTEINS
CA00/01493	12/15/2000	PCT	--	--	CYTOCHROME P450RAI-2 AND RELATED PROTEINS
10/148,883	2/13/2003	United States of America	5/26/2009	7,537,919	Cytochrome P450RAI-2 and related proteins
60/171,110	12/16/1999	United States of America	--	--	P450RAI-2 AND RELATED PROTEINS
60/178,314	1/27/2000	United States of America	--	--	IDENTIFICATION OF THE HUMAN CYTOCHROME P450, P450RAI-2 WHICH IS PREDOMINANTLY EXPRESSED IN THE ADULT CEREBELLUM AND IS RESPONSIBLE FOR ALL TRANS RETINOIC ACID METABOLISM
CA02/00163	2/11/2002	PCT	--	--	CLONING AND CHARACTERIZATION OF A NOVEL HUMAN CYTOCHROME P450, CYP 27C1, AND A HYBRID HOMOLOG FROM XENOPUS LEAVIS
60/267,410	2/9/2001	United States of America	--	--	CLONING AND CHARACTERIZATION OF A NOVEL HUMAN CYTOCHROME P450, CYP 27C1, AND A HYBRID HOMOLOG FROM XENOPUS LEAVIS
60/527,754	12/9/2003	United States of America	--	--	1ALPHA,25-DIHYDROXYVITAMIN D3 ANALOGS
60/862,876	10/25/2006	United States of America	--	--	COMPOSITIONS AND METHODS FOR TREATING HYPERPHOSPHATEMIA IN HUMANS

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Application No.	Filed	Country	Issued	Patent No.	Title
60/913,849	4/25/2007	United States of America	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
2683628	4/25/2008	Canada	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
200880013367.X	4/25/2008	China	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
08837933.4	4/25/2008	European Patent Office	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
2010-504912	4/25/2008	Japan	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
10-2009-7024309	4/25/2008	Korea, Republic of	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
IB08/003480	4/25/2008	PCT	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
12/597,230	12/24/2009	United States of America	--	--	METHOD OF TREATING VITAMIN D INSUFFICIENCY AND DEFICIENCY
60/940,866	5/30/2007	United States of America	--	--	PROCESS FOR PRODUCING PHOSPHINEOXIDE VITAMIN D PRECURSORS
2688083	5/23/2008	Canada	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
200880018041.6	5/23/2008	China	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
08762721.2	5/23/2008	European Patent Office	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
7657/CHENP/2009	5/23/2008	India	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS

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Application No.	Filed	Country	Issued	Patent No.	Title
2010-509907	5/23/2008	Japan	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
IB08/01321	5/23/2008	PCT	--	--	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
12/128,992	5/29/2008	United States of America	10/18/2011	8,039,676	PROCESS FOR PRODUCING PHOSPHINE OXIDE VITAMIN D PRECURSORS
61/036,021	3/12/2008	United States of America	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
2718238	3/12/2009	Canada	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
200980112429.7	3/12/2009	China	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
09720292.3	3/12/2009	European Patent Office	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
11104112.2	3/12/2009	Hong Kong	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
2010-550007	3/12/2009	Japan	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
CA09/00291	3/12/2009	PCT	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
12/403,271	3/12/2009	United States of America	--	--	STABILIZED 1,25-DIHYDROXYVITAMIN D2 AND METHOD OF MAKING SAME
61/175,919	5/6/2009	United States of America	--	--	FRET-BASED BIOSENSOR TO QUANTIFY 25-HYDROXYVITAMIN D
10740698.5	5/3/2010	European Patent Office	--	--	METHODS AND COMPOSITION FOR MEASURING THE AMOUNT OF VITAMIN D DERIVATIVES

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Application No.	Filed	Country	Issued	Patent No.	Title
IB10/001123	5/3/2010	PCT	--	--	METHODS AND COMPOSITION FOR MEASURING THE AMOUNT OF VITAMIN D DERIVATIVES
13/318,442	12/21/2011	United States of America	--	--	METHODS AND COMPOSITION FOR MEASURING THE AMOUNT OF VITAMIN D DERIVATIVES
61/118,030	11/26/2008	United States of America	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
2744591	11/25/2009	Canada	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
200980152913.2	11/25/2009	China	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
09828488.8	11/25/2009	European Patent Office	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
4382/CHENP/2011	11/25/2009	India	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
2011-537801	11/25/2009	Japan	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
CA09/01687	11/25/2009	PCT	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
13/131,176	7/19/2011	United States of America	--	--	METHOD FOR SYNTHESIZING VITAMIN D ANALOGS
61/147,348	1/26/2009	United States of America	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES
2746832	1/26/2010	Canada	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES
10733188.6	1/26/2010	European Patent Office	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES
12105315.3	1/26/2010	Hong Kong	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES
2011-546558	1/26/2010	Japan	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES
CA10/00111	1/26/2010	PCT	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES

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Application No.	Filed	Country	Issued	Patent No.	Title
13/146,217	10/19/2011	United States of America	--	--	PHOSPHATE MANAGEMENT WITH SMALL MOLECULES

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Exhibit B
Patents Previously Held by Cytochroma Inc. and Proventiv Therapeutics

Application No.	Filed	Country	Issued	Patent No.	Title
60/913,848	4/25/2007	United States of America	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
2684778	4/25/2008	Canada	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
08746915.1	4/25/2008	European Patent Office	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
2010-50652	4/25/2008	Japan	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
US08/61586	4/25/2008	PCT	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
12/597,224	4/16/2010	United States of America	--	--	METHODS AND COMPOUNDS FOR VITAMIN D THERAPY
60/913,853	4/25/2007	United States of America	--	--	Methods and Compositions for Controlled Release Oral Dosage of a Vitamin D Compound
2683997	4/25/2008	Canada	--	--	ORAL CONTROLLED RELEASE COMPOSITIONS COMPRISING VITAMIN D COMPOUND AND WAXY CARRIER
200880013357.6	4/25/2008	China	--	--	METHODS AND COMPOSITIONS FOR CONTROLLED RELEASE ORAL DOSAGE OF A VITAMIN D COMPOUND
08746908.6	4/25/2008	European Patent Office	--	--	METHODS AND COMPOSITIONS FOR CONTROLLED RELEASE ORAL DOSAGE OF A VITAMIN D COMPOUND
10108648.7	4/25/2008	Hong Kong	--	--	METHODS AND COMPOSITIONS FOR CONTROLLED RELEASE ORAL DOSAGE OF A VITAMIN D COMPOUND
2010-506520	4/25/2008	Japan	--	--	ORAL CONTROLLED RELEASE COMPOSITIONS COMPRISING VITAMIN D COMPOUND AND WAXY CARRIER
10-2009-7024328	4/25/2008	Korea, Republic of	--	--	ORAL CONTROLLED RELEASE COMPOSITIONS COMPRISING VITAMIN D COMPOUND AND WAXY CARRIER

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Application No.	Filed	Country	Issued	Patent No.	Title
US08/61579	4/25/2008	PCT	--	--	METHODS AND COMPOSITIONS FOR CONTROLLED RELEASE ORAL DOSAGE OF A VITAMIN D COMPOUND
12/109,983	4/25/2008	United States of America	--	--	Methods and Compositions for Controlled Release Oral Dosage of a Vitamin D Compound
12154573.5	4/25/2008	European Patent Office	--	--	ORAL CONTROLLED RELEASE COMPOSITIONS COMPRISING VITAMIN D COMPOUND AND WAXY CARRIER
13/244,945	9/26/2011	United States of America	6/26/2012	8,207,149	METHOD FOR TREATING SECONDARY HYPERPARATHYROIDISM IN CKD
13/746,982	1/22/2013	United States of America			METHODS FOR CONTROLLED RELEASE ORAL DOSAGE OF A VITAMIN D COMPOUND
60/815,148	6/21/2006	United States of America	--	--	METHOD OF TREATING AND PREVENTING SECONDARY HYPOTHYROIDISM
2655499	6/21/2007	Canada	--	--	METHOD OF TREATING AND PREVENTING SECONDARY HYPERPARATHYROIDISM
07840277.3	6/21/2007	European Patent Office	--	--	METHOD OF TREATING AND PREVENTING SECONDARY HYPERPARATHYROIDISM
2009-516725	6/21/2007	Japan	--	--	METHOD OF TREATING AND PREVENTING SECONDARY HYPERPARATHYROIDISM
US07/71791	6/21/2007	PCT	--	--	METHOD OF TREATING AND PREVENTING SHPT IN THE EARLY STAGES OF CKD
12/305,572	3/2/2009	United States of America	12/11/2012	8,329,677	METHOD OF TREATING AND PREVENTING SECONDARY HYPERPARATHYROIDISM
13/680,997	11/19/2012	United States of America	--	--	METHOD OF TREATING AND PREVENTING SECONDARY HYPERPARATHYROIDISM

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Application No.	Filed	Country	Issued	Patent No.	Title
61/041,898	4/2/2008	United States of America	--	--	METHODS OF DIAGNOSING VITAMIN D DEFICIENCY, SUSCEPTIBILITY THERETO, TREATMENT THEREOF, AND PREVENTION THEREOF
61/161,292	3/18/2009	United States of America	--	--	Methods of Diagnosing Vitamin D Deficiency, Susceptibility Thereto, Treatment Thereof, and Prevention Thereof
2714996	4/2/2009	Canada	--	--	METHODS, COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
200980120404.1	4/2/2009	China	--	--	METHODS, COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
09729007.6	4/2/2009	European Patent Office	--	--	METHODS, COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
11111063.6	4/2/2009	Hong Kong	--	--	METHODS, COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
10-2010-7024664	4/2/2009	Korea, Republic of	--	--	METHODS, COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
US09/39355	4/2/2009	PCT	--	--	METHODS OF DIAGNOSING VITAMIN D DEFICIENCY, SUSCEPTIBILITY THERETO, TREATMENT THEREOF, AND PREVENTION
12/935,139	11/12/2010	United States of America	--	--	METHODS COMPOSITIONS, USES, AND KITS USEFUL FOR VITAMIN D DEFICIENCY AND RELATED DISORDERS
61/318,741	3/29/2010	United States of America	--	--	Methods and Compositions for Administration of a Vitamin D Compound
61/405,196	10/20/2010	United States of America	--	--	METHODS AND COMPOSITIONS FOR CONTROLLED RELEASE ORAL DOSAGE OF A 25-HYDROXYVITAMIN D COMPOUND

Application No.	Filed	Country	Issued	Patent No.	Title
2797537	3/29/2011	Canada	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS
201180024227.4	3/29/2011	China	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS
11763340.4	3/29/2011	European Patent Office	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS
10-2012-7028117	3/29/2011	Korea, Republic of	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS
PCT/US11/30404	3/29/2011	PCT	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS
13/638,845	10/1/2012	United States of America	--	--	METHODS AND COMPOSITIONS FOR REDUCING PARATHYROID LEVELS

Exhibit C
Patents Previously Held by Cytochroma Inc. and Johns Hopkins University

Application No.	Filed	Country	Issued	Patent No.	Title
2488334	6/13/2003	Canada	12/7/2010	2488334	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Switzerland	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Germany	2/1/2012	60339897.9	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
03727105.3	6/13/2003	European Patent Office	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Spain	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	France	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	United Kingdom	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Ireland	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Italy	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
2004513244	6/13/2003	Japan	4/9/2010	4490262	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Luxembourg	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
3727105.3	6/13/2003	Monaco	2/1/2012	1511725	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
CA03/00851	6/13/2003	PCT	--	--	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
10/460,656	6/13/2003	United States of America	9/5/2006	7,101,865	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
11/442,148	5/30/2006	United States of America	7/5/2011	7,973,024	24-SULFOXIMINE VITAMIN D3 COMPOUNDS
60/387,904	6/13/2002	United States of America	--	--	24-SULFOXIMINE VITAMIN D3 COMPOUNDS

Application No.	Filed	Country	Issued	Patent No.	Title
2458415	8/22/2002	Canada	9/21/2010	2458415	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2752924.7	8/22/2002	Switzerland	4/15/2009	1419143	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2752924.7	8/22/2002	Germany	4/15/2009	60231987.0	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
02752924.7	8/22/2002	European Patent Office	4/15/2009	1419143	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2752924.7	8/22/2002	France	4/15/2009	1419143	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2752924.7	8/22/2002	United Kingdom	4/15/2009	1419143	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2752924.7	8/22/2002	Italy	4/15/2009	1419143	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2003523209	8/22/2002	Japan	--	--	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
CA02/01294	8/22/2002	PCT	--	--	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
60/328,429	10/12/2001	United States of America	--	--	24-ARYL SULFONE ANALOGS OF 1ALPHA, 25- DIHYDROXY VITAMIN D3
60/387,931	6/13/2002	United States of America	--	--	24-ARYL SULFONE ANALOGS OF 1ALPHA, 25- DIHYDROXY VITAMIN D3

Application No.	Filed	Country	Issued	Patent No.	Title
10/225,475	8/22/2002	United States of America	--	--	24-SULFUR-SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
10/612,302	7/3/2003	United States of America	1/23/2007	7,166,585	24-SULFUR-SUBSTITUTED ANALOGS OF 1 ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Austria	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Belgium	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2463505	10/11/2002	Canada	7/12/2011	2463505	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Switzerland	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Cyprus	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Germany	4/18/2007	60219655.8	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Denmark	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
02767010.8	10/11/2002	European Patent Office	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Spain	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Finland	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	France	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3

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Application No.	Filed	Country	Issued	Patent No.	Title
2767010.8	10/11/2002	United Kingdom	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Greece	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Ireland	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Italy	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2003-534384	10/11/2002	Japan	1/8/2010	4436674	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Luxembourg	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Monaco	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Netherlands	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
CA02/01519	10/11/2002	PCT	--	--	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Portugal	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
2767010.8	10/11/2002	Sweden	4/18/2007	1436257	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
10/270,158	10/15/2002	United States of America	1/3/2006	6,982,258	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3
60/328,428	10/12/2001	United States of America	--	--	LOW-CALCEMIC OXIME ANALOGS OF 1ALPHA, 25-DIHYDROXY VITAMIN D3

Application No.	Filed	Country	Issued	Patent No.	Title
2510228	12/18/2003	Canada	10/30/2012	2510228	25-SO ₂ -SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXYVITAMIN D ₃
CA03/01926	12/18/2003	PCT	--	--	25-SO ₂ -SUBSTITUTED ANALOGS OF 1ALPHA, 25-DIHYDROXYVITAMIN D ₃ (CALCITRIOL)
10/738,248	12/18/2003	United States of America	1/31/2012	8,106,035	25-SO ₂ -SUBSTITUTED ANALOGS OF 1 α ,25-DIHYDROXYVITAMIN D ₃
60/674,282	4/25/2005	United States of America	--	--	LOW-CALCEMIC 16,23-DIENE 25-OXIME ANALOGS OF 1ALPHA,25-DIHYDROXY VITAMIN D ₃
2605815	4/25/2006	Canada	--	--	LOW-CALCEMIC 16,23-DIENE 25-OXIME ANALOGS OF 1ALPHA,25-DIHYDROXY VITAMIN D ₃
06721850.3	4/25/2006	European Patent Office	--	--	LOW-CALCEMIC 16,23-DIENE 25-OXIME ANALOGS OF 1ALPHA,25-DIHYDROXY VITAMIN D ₃
2008-508035	4/25/2006	Japan	--	--	LOW-CALCEMIC 16,23-DIENE 25-OXIME ANALOGS OF 1ALPHA,25-DIHYDROXY VITAMIN D ₃
CA06/00657	4/25/2006	PCT	--	--	LOW-CALCEMIC 16,23-DIENE 25-OXIME ANALOGS OF 1ALPHA,25-DIHYDROXY VITAMIN D ₃
11/912,395	11/11/2008	United States of America	--	--	Low Calcemic 16, 23 Diene 25-Oxime Analogs of 1alpha, 25 Dihydroxy Vitamin D ₃
61/294,741	1/13/2010	United States of America	--	--	1-DEOXY ANALOGS OF 1,25-DIHYDROXYVITAMIN D ₃ COMPOUNDS

Application No.	Filed	Country	Issued	Patent No.	Title
2012-549078	1/13/2011	Japan	--	--	1-DEOXY ANALOGS OF VITAMIN D-RELATED COMPOUNDS
PCT/US11/21129	1/13/2011	PCT	--	--	1-DEOXY ANALOGS OF 1,25-DIHYDROXYVITAMIN D3 COMPOUNDS
13/521,980	7/12/2012	United States of America	--	--	1-DEOXY ANALOGS OF 1,25-DIHYDROXYVITAMIN D3 COMPOUNDS

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