CH \$565.00 354

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 ETAS ID: TM399543

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Joinder to Guarantee and Collateral Assignment

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Interpace Diagnostics Corporation		11/01/2014	Corporation: DELAWARE
PDI, Inc.		11/01/2014	Corporation: DELAWARE
Group DCA, LLC		11/01/2014	Limited Liability Company: DELAWARE
Interpace Biopharma, LLC		11/01/2014	Limited Liability Company: NEW JERSEY
Interpace Diagnostics, LLC		11/01/2014	Limited Liability Company: DELAWARE
JS Genetics, Inc.		11/01/2014	Corporation: DELAWARE

RECEIVING PARTY DATA

Name:	Redpath Equityholder Representative, LLC	
Street Address:	555 Lancaster Avenue	
Internal Address:	Suite 444	
City:	Radnor	
State/Country:	PENNSYLVANIA	
Postal Code:	19087	
Entity Type:	Limited Liability Company: DELAWARE	

PROPERTY NUMBERS Total: 22

Property Type	Number	Word Mark
Registration Number:	3546361	MIRINFORM
Registration Number:	4071426	MIRINFORM
Registration Number:	4071427	MIRINFORM
Registration Number:	3970284	DIAGRAM
Registration Number:	3486366	CUECARD
Registration Number:	4593300	PD ONE
Registration Number:	4593299	PD ONE
Registration Number:	4882519	THYRAMIR
Registration Number:	4796668	PANCRAGEN
Registration Number:	4729279	THYGENX
Registration Number:	4882368	
		TRADEMARK

900379082 REEL: 005883 FRAME: 0572

Property Type	Number	Word Mark	
Registration Number:	4729240	POWER IN PERFORMANCE	
Registration Number:	4646544	INTERPACE DIAGNOSTICS	
Registration Number:	3617915	PDI	
Registration Number:	3344703		
Registration Number:	3617916	PDI	
Registration Number:	4465320	THE MEDICAL BUZZ	
Registration Number:	4679466	THE MEDICAL BAG	
Registration Number:	4465321	WHAT KILLED 'EM	
Registration Number:	4465315	DESPICABLE DOCTORS	
Registration Number:	4465316	COMIC SEIZURE	
Registration Number:	3208314	PATHFINDERTG	

CORRESPONDENCE DATA

Fax Number: 4125621041

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

Phone: 412-562-1637

Email: vicki.cremonese@bipc.com

Correspondent Name: Michael L. Dever Address Line 1: 301 Grant Street

Address Line 2: 20th Floor

Address Line 4: Pittsburgh, PENNSYLVANIA 15219

ATTORNEY DOCKET NUMBER:	0076838-000006
NAME OF SUBMITTER:	Michael L. Dever
SIGNATURE:	/Michael L. Dever/
DATE SIGNED:	09/23/2016

Total Attachments: 17

source=redpath-interpace diagnostics joinder to agreement#page1.tif source=redpath-interpace diagnostics joinder to agreement#page3.tif source=redpath-interpace diagnostics joinder to agreement#page4.tif source=redpath-interpace diagnostics joinder to agreement#page5.tif source=redpath-interpace diagnostics joinder to agreement#page5.tif source=redpath-interpace diagnostics joinder to agreement#page7.tif source=redpath-interpace diagnostics joinder to agreement#page8.tif source=redpath-interpace diagnostics joinder to agreement#page9.tif source=redpath-interpace diagnostics joinder to agreement#page10.tif source=redpath-interpace diagnostics joinder to agreement#page11.tif source=redpath-interpace diagnostics joinder to agreement#page12.tif source=redpath-interpace diagnostics joinder to agreement#page13.tif source=redpath-interpace diagnostics joinder to agreement#page13.tif source=redpath-interpace diagnostics joinder to agreement#page14.tif source=redpath-interpace diagnostics joinder to agreement#page15.tif

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JOINDER TO GUARANTEE AND COLLATERAL AGREEMENT

This JOINDER AGREEMENT (this "Agreement") dated as of November 1, 2014 is executed by the undersigned for the benefit of Red Path Equityholder Representative, LLC, as Lender (the "Lender") in connection with that certain Guarantee and Collateral Agreement dated as of October 31, 2014 among the Grantors party thereto and Lender (as amended, supplemented or modified from time to time, the "Guarantee and Collateral Agreement"). Capitalized terms not otherwise defined herein are being used herein as defined in the Guarantee and Collateral Agreement.

Each Person signatory hereto is required to execute this Agreement pursuant to <u>Section 8.16</u> of the Guarantee and Collateral Agreement.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each signatory hereby agrees as follows:

- 1. Each such Person assumes all the obligations of a Grantor and a Guarantor under the Guarantee and Collateral Agreement and agrees that such Person is a Grantor and a Guarantor and bound as a Grantor and a Guarantor under the terms of the Guarantee and Collateral Agreement, as if it had been an original signatory to the Guarantee and Collateral Agreement. In furtherance of the foregoing, such Person hereby (i) grants to Lender a security interest in all of its right, title and interest in and to the Collateral owned thereby to secure the Secured Obligations and (ii) guarantees the prompt and complete payment and performance by Borrowers when due (whether at the stated maturity, by acceleration or otherwise) of Borrower Obligations.
- 2. <u>Schedules 1, 2, 3, 4, 5, 6, 7, 8</u> and 9, of the Guarantee and Collateral Agreement are hereby amended and restated in the forms of <u>Schedules 1, 2, 3, 4, 5, 6, 7, 8</u> and 9, respectively, hereof. Each such Person and all existing Grantors hereby make to Lender the representations and warranties set forth in the Guarantee and Collateral Agreement applicable to such Person and the applicable Collateral and confirms that such representations and warranties are true and correct after giving effect to such amendment to such Schedules,
- 3. In furtherance of its obligations under <u>Section 5.2</u> of the Guarantee and Collateral Agreement, each such Person authorizes Lender to file appropriately complete Code financing statements naming such person or entity as debtor and Lender as secured party, and describing the Collateral, and agrees to execute and deliver such other documentation as Lender (or its successors or assigns) may require to evidence, protect and perfect the Liens created by the Guarantee and Collateral Agreement, as modified hereby.
- 4. Each such Person's address and fax number for notices under the Guarantee and Collateral Agreement shall be that of the Borrowers as set forth in the Guarantee and Collateral Agreement.
- 5. This Agreement shall be deemed to be part of, and a modification to, the Guarantee and Collateral Agreement and shall be governed by all the terms and provisions of the Guarantee and Collateral Agreement, with respect to the modifications intended to be made to such agreement, which terms are incorporated herein by reference, are ratified and confirmed and shall continue in full force and effect as valid and binding agreements of each such person or entity enforceable against such person or entity. Each such person or entity hereby waives notice of Lender's acceptance of this Agreement. Each such person or entity will deliver an executed original of this Agreement to Lender.

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IN WITNESS WHEREOF, the undersigned has caused this Agreement to be duly executed and delivered by its duly authorized officers as of the date first set forth above.

INTERPACE DIAGNOSTICS CORPORATION a Delaware corporation

Name: Nancy Lurker
Title: President

ACKNOWLEDGED BY:

PDI, INC.,

a Delaware corporation

By: fory July
Name: Nancy 8. Lurker
Title: Chief Executive Officer

GROUP DCA, LLC,

a Delaware limited liability company

Name: Nancy S. Lurker Title: Chief Executive Officer

INTERPACE BIOPHARMA, LLC, a New Jersey limited liability company

Name: Nancy S. Lurker Title: Chief Executive Officer

INTERPACE DIAGNOSTICS, LLC, a Delaware limited liability company

Name: Nandy S. Lurker Title: Chief Executive Officer

[Signature page to Interpace Diagnostics Corporation Joinder to Guarantee and Collateral Agreement]

JS GENETICS, INC., a Delaware corporation

By: May Jaker
Name: Name: S. Lurker
Title: Chief Executive Officer

SCHEDULE 5

INTELLECTUAL PROPERTY

Licenses

Second Amended and Restated Exclusive License Agreement, effective as of March 18, 2014, by and between Yale University, as licensor, and JS Genetics, Inc., as licensee, with respect to an invention entitled "DCDC2 Mutations Cause Dyslexia (OCR 1742);"

Amended and Restated Exclusive License Agreement, effective as of March 18, 2014, by and between Yale University, as licensor, and JS Genetics, Inc., as licensee, with regard to an invention entitled "DNA Diagnostic Screening for Turner Syndrome and Sex Chromosome Disorders (OCR 1601);"

License Agreement, dated as of August 13, 2014, by and between Asuragen, Inc. and Interpace Diagnostics, LLC granting certain rights under CPRIT Agreement;

License Agreement, dated as of August 13, 2014, by and between Asuragen, Inc. and Interpace Diagnostics, LLC granting rights described therein;

Non-Exclusive License Agreement by and between Asuragen, Inc. and The Brigham Women's Hospital, Inc., with effective date of June 14, 2010 and amendment, transferred to Interpace Diagnostics, LLC taking the place of Asuragen, expected to be effective as of November 30, 2014⁸;

License Agreement by and between Asuragen, Inc. and Ohio State Innovation Foundation, with effective date of November 10, 2011, with regard to Ohio State Technology 05083 entitled "MicroRNA Diagnostic Biomarkers and Therapeutic Targets for Pancreatic Cancer" transferred to Interpace Diagnostics, LLC taking the place of Asuragen, effective as of August 13, 2014;

Non-exclusive license agreement between The Johns Hopkins University and PDI, Inc., effective October 14, 2014.

Copyrights

none

⁸ This agreement will be transferred to Interpace Diagnostics, LLC once Asuragen completes its obligations under a TSA between Interpace Diagnostics, LLC and Asuragen. It is scheduled to be completed on November 30, 2014, but could be extended.

Patents

U.S. cases:

Owner	App. No.	Filing Date	Title	Country
The second secon	Patent No.	Issue Date		US
Interpace	60/826,173	09/19/2006	MicroRNAs Differentially Expressed in Pancreatic	US
Diagnostics	N <u>A</u>	NA	Disease and Uses Thereof	US
Interpace	11/857,948	9/19/2007	MicroRNAs Differentially Expressed in Pancreatic	us į
Diagnostics	NA	NA	Disease and Uses Thereof	US
Interpace	61/414,778	11/17/2010	MiRNAs as Biomarkers for Distinguishing Benign	. 05
Diagnostics	NA	NA	from Malignant Thyroid Neoplasms	US US
Interpace	13/299,226	11/17/2011	MiRNAs as Biomarkers for Distinguishing Benign	05
Diagnostics	NA _	NA	from Malignant Thyrold Neoplasms	US
Interpace	61/534,332	09/13/2011	Methods and Compositions Involving miR-135B	US
Diagnostics	NA	NA	for Distinguishing Pancreatic Cancer from Benign	
Į			Pancreatic Disease	US
Interpace	61/536,486	09/19/2011	Methods and Compositions Involving miR-135B	US
Diagnostics	NА	NA	for Distinguishing Pancreatic Cancer from Benign	
_			Pancreatic Disease	US
Interpace	13/615,066	9/13/2012	Methods and Compositions Involving mIR-135B	08
Diagnostics	NA	NA	for Distinguishing Pancreatic Cancer from Benign	
			Pancreatic Disease	US
Interpace	61/552,451	10/27/2011	miRNAs as Diagnostic Biomarkers to Distinguish	US
Diagnostics	NA NA	NA	Benign from Malignant Thyroid Tumors	US
Interpace	61/552,762	10/27/2011	miRNAs as Diagnostic Biomarkers to Distinguish	บจ
Diagnostics	NA	NA NA	Benign from Malignant Thyroid Tumors	US
Interpace	13/662,450	10/27/2012	miRNAs as Diagnostic Biomarkers to Distinguish	บจ
Diagnostics	NA	NA	Benign from Malignant Thyroid Tumors	US
Interpace	61/709,411	10/04/2012	Diagnostic mirnas for Differential Diagnosis of	. 08
Diagnostics	NA NA	NA	Incidental Pancreatic Cystic Lesions	US
Interpace	61/716,396	10/19/2012	Diagnostic mirnas for Differential Diagnosis of	us
Diagnostics	NA NA	NA NA	Incidental Pancreatic Cystic Lesions	US
Interpace	13/801,737	3/13/2013	Diagnostic mirnas for Differential Diagnosis of	00
Diagnostics	NA	NA	Incidental Pancreatic Cystic Lesions	110
PDI, Inc.	13/436,259	3/30/2012	Consolidated Presentation Of Pharmaceutical	US
			Information From Multiple Sources	1.0
JS Genetics Inc.	13/266434	4/28/2010	Molecdular Diagnosis of Fragile X Syndrome	US
			Associated with FMR1 Gene	110
JS Genetics Inc.	13/266429	4/26/2010	Method of Prenatal Molecular Diagnosis of Down	US
			Syndrome and Other Trisomic Disorders	

Foreign Cases:

Owner	App. No.	Filing Date	Titlë	Country
Interpace Diagnostics	Patent No. PCT/US07/78936 NA	09/19/2007 NA	MicroRNAs Differentially Expressed in Pancreatic Disease and Uses Thereof	PCT
Interpace	2007299828	9/19/2007	MicroRNAs Differentially Expressed in	AU
Diagnostics	NA	NA	Pancreatic Disease and Uses Thereof	
Interpace	2,664,383	9/19/2007	MicroRNAs Differentially Expressed in	CA
Diagnostics	NA	NA	Pancreatic Disease and Uses Thereof	
Interpace Diagnostics	12159733 NA	9/19/2007 NA	MicroRNAs Differentially Expressed in Pancreatic Disease and Uses Thereof	EU
Interpace	2009-529373	9/19/2007	MicroRNAs Differentially Expressed In	JP
Diagnostics	5520605	4/11/2014	Pancreatic Disease and Uses Thereof	

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Owner	App. No:	Filing Date	Title	Country
	Patent No.	Issue Date		
Interpace	PCT/US11/61237	11/17/2011	MiRNAs as Biomarkers for Distinguishing	PCT
Diagnostics	NA	NA	Benign from Malignant Thyrold Neoplasms	
Interpace	2011329772	11/17/2011	MiRNAs as Biomarkers for Distinguishing	AU
Diagnostics	NA	NA	Benign from Malignant Thyroid Neoplasms	
Interpace	1120130122650	11/17/2011	MiRNAs as Biomarkers for Distinguishing	BR
Diagnostics	NA	NA	Benign from Malignant Thyroid Neoplasms	
Interpace	2817882	11/17/2011	MiRNAs as Blomarkers for Distinguishing	CA
Diagnostics	NA	NA	Benign from Malignant Thyroid Neoplasms	
Interpace	14150739.2	11/17/2011	MiRNAs as Biomarkers for Distinguishing	EU
Diagnostics	NA	<u> </u>	Benign from Malignant Thyroid Neoplasms	
Interpace	226356	11/17/2011	MiRNAs as Biomarkers for Distinguishing	ΙL
Diagnostics	NA	NA	Benign from Malignant Thyroid Neoplasms	
Interpace	2013540026	11/17/2011	MiRNAs as Biomarkers for Distinguishing	JР
Diagnostics	NA	NA	Benign from Malignant Thyroid Neoplasms	507
Interpace	PCT/US2012/062330		miRNAs as Diagnostic Blomarkers to	PCT
Diagnostics	NA	NA	Distinguish Benign from Malignant Thyroid Tumors	
Interpace	12787991.4	10/27/2012	miRNAs as Diagnostic Biomarkers to	EU
Diagnostics	NA	NA	Distinguish Benign from Malignant Thyroid Tumors	
Interpace	PCT/US2013/030990	3/13/2013	Diagnostic mirnas for Differential Diagnosis	PCT
Diagnostics	NA	NA NA	of Incidental Pancreatic Cystic Lesions	
PDI, Inc.	PCT/US2013/034670		Consolidated Presentation Of Pharmaceutical Information From Multiple	PCT
		<u> </u>	Sources	

Co-owned Patent Applications

Co-owned Tatent Applications				
Owner	App. No. Patent No.	Filing Date Issue Date	Title	Country
Interpace	13/801,737	3/13/2013	Diagnostic Mirnas For Differential Diagnosis Of	US
Diagnostics	NA NA	NA	Incidental Pancreatic Cystic Lesions	
Brigham Women's Hospital				
Interpace Diagnostics	PCT/US2013/030990 NA	3/13/2013 NA	Diagnostic Mirnas For Differential Diagnosis Of Incidental Pancreatic Cystic Lesions	PCT
&				
Brigham Women's Hospital				

Trademarks

Owner	Mark	Country	App. No. Reg. No.
Interpace	MIRINFORM	US	77/447,187
Diagnostics			3,546,361
Interpace	MIRINFORM	US	85/067,844
Diagnostics			4,071,426
Interpace	MIRINFORM	US	85/067,850
Diagnostics			4,071,427
Interpace	MIRINFORM	MP (CN)	A0035669
Diagnostics			1162299
Interpace	MIRINFORM	MP (CN)	A0035671
Diagnostics			11621785
Group DCA,	DIAGRAM	US	85/145,671
LLC			3,970,284
Group DCA,	CUECARD	US	78/826,562
LLC			3,486,366
Group DCA,	PD ONE	US	85/567,143
LLC			4,593,300
Group DCA,	PD ONE	US	85/567,130
LLC			4,593,299
Interpace	BaraGen	US	86/390,390
Diagnostics,			n/a
LLC			
Interpace	THYMIRA	US	86/370,332
Diagnostics,		}	n/a
LLC			
Interpace	THYRAMIR	US	86/370,328
Diagnostics,			n/a
LLC		·	
Interpace	PancraGEN	US	86/370,325
Diagnostics,			n/a
LLC			
Interpace	ThyGenX	US	86/365,003
Diagnostics,			n/a
LLC	}		
Interpace	PANCRAMIR	US	86/357,914
Diagnostics,			n/a
LLC			
Interpace		US	86/290,079
Diagnostics		ļ	n/a
LLC			
Interpace	POWER IN	US	86/325,980
Diagnostics	1	=	n/a
LLC			

Owner	Mark	Country -	App, No. Reg. No.
PDI, Inc.	INTERPACE DIAGNOSTICS	US	86/130,866 n/a
PDI, Inc.	FDI	US	76/630,045 3,617,915
PDI, Inc.		US	76/630,047 3,344,703
PDI, Inc.	PDI	US	76/630,046 3,617,916
PDI, Inc.	PD ONE REP	US	86/227,209 n/a
PDI, Inc.	THE MEDICAL BUZZ	US	85/930,489 4465320
PDI, Inc.	THE MEDICAL BAG	US	85/929,050 n/a
PDI, Inc.	WHAT KILLED 'EM	US	85/930,510 4,465,321
PDI, Inc.	DESPICABLE DOCTORS	US	85/930,412 4465315
PDI, Inc.	COMIC SEIZURE	US	85/930,420 4465316
PDI, Inc.	HCP ECOSYSTEM	US	85/971374 n/a
PDI, Inc.	INTERPACE DIAGNOSTICS	US	86/130866

Mask Works

none

Redpath Assets Redpath Patents

Pat. No/ App.	Country	Status	<u>Title</u>	Filing Date	<u>Issue Date</u>	Assignee
<u>No.</u> 2584989	CA	Abandoned	MOLECULAR	10/24/2005	· _	RedPath Integrated
	'		ANALYSIS OF			Pathology,
		 	CELLULAR FLUID			Inc.
•			AND LIQUID			1110,
•			CYTOLOGY			
•			SPECIMENS FOR			
		.	CLINICAL			
		[DIAGNOSIS, CHARACTERIZATION,			
]	AND INTEGRATION			
		!	WITH MICROSCOPIC			
		1	PATHOLOGY			
		\ \	EVALUATION			
2585025	CA	Abandoned	DYNAMIC GENOMIC	10/24/2005		RedPath
2383023	CA	Abandoned	DELETION			Integrated
			EXPANSION AND			Pathology,
		Ì	FORMULATION OF	,		Inc.
			MOLECULAR			
			MARKER PANELS FOR			1
			INTEGRATED			
			MOLECULAR			
			PATHOLOGY			
	Ì		DIAGNOSIS AND)		
	!		CHARACTERIZATION	ļ.		
			OF TISSUE,			
			CELLULAR FLUID,	ļ		}
			AND PURE FLUID			
			SPECIMENS		ļ	n in d
2584723	CA	Abandoned	ENHANCED	10/24/2005		RedPath
			AMPLIFIABILITY OF			Integrated Pathology,
			MINU'TE FIXATIVE-			Inc.
		1	TREATED TISSUE			inc.
			SAMPLES, MINUTE			
			STAINED CYTOLOGY			
			SAMPLES, AND			
			OTHER MINUTE			1
	TYP	Abandoned	SOURCES OF DNA MOLECULAR	10/24/2005		RedPath
05818189.2	EP	Abandoned	ANALYSIS OF	10/24/2003		Integrated
			CELLULAR FLUID			Pathology
			AND LIQUID			Inc.
	1		CYTOLOGY			
			SPECIMENS FOR	ļ		
			CLINICAL			
	20 50		DIAGNOSIS,			
	C.F.		CHARACTERIZATION,		-	
			AND INTEGRATION		ĺ	
			WITH MICROSCOPIC	1		
			PATHOLOGY			
1	1		EVALUATION			

Pat. No/ App.	Country	Status	<u>Title</u>	Filing Date	Issue Date	Assignee
No.		Abandoned	DYNAMIC GENOMIC	10/24/2005		RedPath
05818314.6	EP	Abandoned	DELETION DELETION	10/24/2005		Integrated
		:				Pathology,
			EXPANSION AND		!	Inc.
			FORMULATION OF			1110.
			MOLECULAR			
			MARKER PANELS FOR			
			INTEGRATED MOLECULAR			l Ì
			PATHOLOGY			
			DIAGNOSIS AND	·	<u> </u>	
			CHARACTERIZATION		ļ	
			OF TISSUE,			
			CELLULAR FLUID,		ļ	1
			AND PURE FLUID			ļ <u> </u>
		İ	SPECIMENS]		
05817148.9	EP	Abandoned	ENHANCED	10/24/2005		RedPath
0381/148.9	EF	Auginonoa	AMPLIFIABILITY OF			Integrated
			MINUTE FIXATIVE-	ļ		Pathology,
			TREATED TISSUE			Inc.
			SAMPLES, MINUTE			
		1	STAINED CYTOLOGY			
			SAMPLES, AND			1
			OTHER MINUTE			1
			SOURCES OF DNA			
60/620926	US	Expired	TOPOGRAPHIC	10/22/2004		RedPath
		_	GENOTYPING FOR			Integrated
			DEFINING THE			Pathology,
			DIAGNOSIS,		ļ	Inc.
			MALIGNANT			
		110	POTENTIAL, AND			
			BIOLOGICAL			
			BEHAVIOR OF			
			PANCREATIC CYSTS			
			AND RELATED]
		 	CONDITIONS	10/24/2005		RedPath
11/255978	US	Abandoned	TOPOGRAPHIC GENOTYPING FOR	10/24/2003		Integrated
			DETERMINING THE			Pathology,
			DIAGNOSIS,			Inc.
}	}		MALIGNANT			
			POTENTIAL, AND			
			BIOLOGIC BEHAVIOR			
		ļ	OF PANCREATIC			
		Ì	CYSTS AND RELATED	Ì	1	
		ļ	CONDITIONS			
60/631240	US	Expired	TOPOGRAPHIC	11/29/2004	į l	RedPath
00/031240	06	Linpuda	GENOTYPING FOR			Integrated
		}	DETERMINING THE			Pathology,
}	ĺ		DIAGNOSIS,			Inc.
		ļ	MALIGNANT			
}			POTENTIAL, AND			
			BIOLOGIC BEHAVIOR		1	
1		\ .	OF PANCREATIC			ļ
			CYSTS AND RELATED	١ [
			CONDITIONS			

Pat: No/ App. No.	<u>Country</u>	Status	Title	Filing Date	Issue Date	Assignee
11/256150	US	Abandoned	MOLECULAR ANALYSIS OF CELLULAR FLUID AND LIQUID CYTOLOGY SPECIMENS FOR CLINICAL DIAGNOSIS, CHARACTERIZATION, AND INTEGRATION WITH MICROSCOPIC PATHOLOGY EVALUATION	10/24/2005		RedPath Integrated Pathology, Inc.
60/644568	US	Expired	TOPOGRAPHIC GENOTYPING FOR DETERMINING THE DIAGNOSIS, MALIGNANT POTENTIAL, AND BIOLOGIC BEHAVIOR OF PANCREATIC CYSTS AND RELATED CONDITIONS	01/19/2005		RedPath Integrated Pathology, Inc.
11/256152	US	Abandoned	DYNAMIC GENOMIC DELETION EXPANSION AND FORMULATION OF MOLECULAR MARKER PANELS FOR INTEGRATED MOLECULAR PATHOLOGY DIAGNOSIS AND CHARACTERIZATION OF TISSUE, CELLULAR FLUID, AND PURE FLUID SPECIMENS	10/24/2005		RedPath Integrated Pathology, Inc.
60/679968	US	Expired	MOLECULAR ANALYSIS OF CELLULAR FLUIDS SPECIMENS FOR CLINICAL DIAGNOSIS, CHARACTERIZATION, AND INTEGRATION WITH MICROSCOPIC PATHOLOGY EVALUATION	05/12/2005		RedPath Integrated Pathology, Inc.

Pat. No/ App.	Country	Status	<u>Title</u>	Filing Date	Issue Date	<u>Assignee</u>
<u>No.</u> 11/255980	US	Abandoned .	ENHANCED AMPLIFIABILITY OF MINUTE FIXATIVE- TREATED TISSUE SAMPLES, MINUTE STAINED CYTOLOGY SAMPLES, AND OTHER MINUTE SOURCES OF DNA	10/24/2005		RedPath Integrated Pathology, Inc.
60/679969	US	Expired	DYNAMIC GENOMIC DELETION EXPANSION: A PREDICTOR OF CANCER BIOLOGICAL AGGRESSIVENESS	05/12/2005		RedPath Integrated Pathology, Inc.
14/305,727	US	Pending	TOPOGRAPHIC GENOTYPING FOR DETERMINING THE DIAGNOSIS, MALIGNANT POTENTIAL, AND BIOLOGIC BEHAVIOR OF PANCREATIC CYSTS AND RELATED CONDITIONS	6/16/2014		RedPath Integrated Pathology, Inc.
US2005/038315	PCT	Expired	MOLECULAR ANALYSIS OF CELLULAR FLUID AND LIQUID CYTOLOGY SPECIMENS FOR CLINICAL DIAGNOSIS, CHARACTERIZATION, AND INTEGRATION WITH MICROSCOPIC PATHOLOGY EVALUATION	10/24/2005		RedPath Integrated Pathology, Inc.
US2005/038313	PCT	Expired	DYNAMIC GENOMIC DELETION EXPANSION AND FORMULATION OF MOLECULAR MARKER PANELS FOR INTEGRATED MOLECULAR PATHOLOGY DIAGNOSIS AND CHARACTERIZATION OF TISSUE, CELLULAR FLUID, AND PURE FLUID SPECIMENS			RedPath Integrated Pathology, Inc.

Pat. No/ App.	Country	<u>Status</u>	<u>Title</u>	Filing Date	Issue Date	Assignee
<u>No.</u> US2005/038311	PCT	Expired	ENHANCED AMPLIFIABILITY OF MINUTE FIXATIVE- TREATED TISSUE SAMPLES, MINUTE STAINED CYTOLOGY SAMPLES, AND OTHER MINUTE SOURCES OF DNA	10/24/2005		RedPath Integrated Pathology, Inc.
US2005/038312	PCT	Expired	TOPOGRAPHIC GENOTYPING FOR DETERMINING THE DIAGNOSIS, MALIGNANT POTENTIAL, AND BIOLOGIC BEHAVIOR OF PANCREATIC CYSTS AND RELATED CONDITIONS	10/24/2005		RedPath Integrated Pathology, Inc.
2198774	CA	Abandoned	TOPOGRAPHIC GENOTYPING	09/22/1995		RedPath Integrated Pathology, Inc.
95935153.7	EP	Abandoned	TOPOGRAPHIC GENOTYPING	09/22/1995		RedPath Integrated Pathology, Inc.
8-511138	JP	Abandoned	TOPOGRAPHIC GENOTYPING	09/22/1995		RedPath Integrated Pathology, Inc.
6,340,563 (08/667493)	US	Granted	TOPOGRAPHIC GENOTYPING	06/24/1996	01/22/2002	RedPath Integrated Pathology, Inc.
7,014,999 (10/008278)	US	Granted	TOPOGRAPHIC GENOTYPING	11/05/2001	03/21/2006	RedPath Integrated Pathology, Inc.
11/289624	US	Abandoned	TOPOGRAPHIC GENOTYPING	11/30/2005		RedPath Integrated Pathology, Inc.
08/311553	US	Abandoned	TOPOGRAPHIC GENOTYPING	09/23/1994		RedPath Integrated Pathology, Inc.
US95/12372	PCT	Expired	TOPOGRAPHIC GENOTYPING	09/22/1995		RedPath Integrated Pathology, Inc.

Pat. No/ App.	Country	<u>Status</u>	Title	Filing Date	<u>Issue Date</u>	Assignee
<u>No.</u> 61/240919	US	Abandoned	GENERATION OF A COMPREHENSIVE PATHOLOGY REPORT BASED ON MOLECULAR AND GENETIC ANALYSIS	09/09/2009		RedPath Integrated Pathology, Inc.
61/294355	US	Abandoned	METHODS OF COMPARATIVE MUTATIONAL PROFILING	01/12/2010		RedPath Integrated Pathology, Inc.
61/429908	US	Expired	METHODS OF COMPARATIVE MUTATIONAL PROFILING	01/05/2011		RedPath Integrated Pathology, Inc.
61/292561	US	Abandoned	METHODS OF IDENTIFYING BLOOD AND BLOOD- DERIVED DNA CONTENT IN CYST	01/06/2010		RedPath Integrated Pathology, Inc.
61/429900	US	Expired	METHODS OF IDENTIFYING BLOOD AND BLOOD- DERIVED DNA CONTENT IN CYST	01/05/2011		RedPath Integrated Pathology, Inc.
61/297136	US	Abandoned	METHOD OF GENERATING A PATHOLOGY REPORT FOR COMPARATIVE MUTATIONAL PROFILING	01/21/2010		RedPath Integrated Pathology, Inc.
61/425109	US	Expired	MOLECULAR DISCRIMINATION BETWEEN SPORADIC VERSUS TOXIN- ASSOCIATED CANCER FORMATION	12/20/2010		RedPath Integrated Pathology, Inc.
13/331966	US	Abandoned		12/20/2011		RedPath Integrated Pathology, Inc.
61/443014	US	Expired	METHODS OF DIFFERENTIATING BETWEEN NON- GENOTOXIN VERSUS GENOTOXIN- ASSOCIATED TUMORS	02/15/2011		RedPath Integrated Pathology Inc,

Pat, No/ App.	Country	Status	Title	Filing Date	Issue Date	Assignee
<u>No.</u> 61/549684	US	Expired	METHODS OF GENOTYPING DNA FROM RESIDUAL SUPERNATANT FLUID FORM BIOLOGICAL SPECIMENS	10/20/2011		RedPath Integrated Pathology, Inc.
61/565879	บร	Expired	METHODS OF IDENTIFYING DYSPLASIA IN A SUBJECT	12/01/2011		RedPath Integrated Pathology, Inc.
13/692727	US	Pending	METHODS FOR TREATING BARRETT'S METAPLASIA AND ESOPHAGEAL ADENOCARCINOMA	12/03/2012		RedPath Integrated Pathology, Inc.
13/954247	US	Pending	METHODS FOR TREATING BARRETT'S METAPLASIA AND ESOPHAGEAL ADENOCARCINOMA	07/30/2013		RedPath Integrated Pathology, Inc.
US14/46702	PCT	Pending	METHODS FOR TREATING BARRETT'S METAPLASIA AND ESOPHAGEAL ADENOCARCINOMA	07/15/2014		RedPath Integrated Pathology, Inc.
61/612061	US	Expired	METHODS OF GENOTYPING DNA FROM RESIDUAL RADIOCONTRAST AGENT	03/16/2012		RedPath Integrated Pathology, Inc.
61/640527	US	Expired	METHODS FOR DIAGNOSING LOW AND HIGH GRADE DYSPLASIA IN BARRETT'S ESOPHAGUS	04/30/2012		RedPath Integrated Pathology, Inc.
61/661256	US	Expired	METHODS FOR DIAGNOSING LOW AND HIGH GRADE DYSPLASIA IN BARRETT'S ESOPHAGUS	06/18/2012		RedPath Integrated Pathology, Inc.
61/731725	US	Expired	METHODS FOR MEASURING CARCINOEMBRYONIC ANTIGEN			RedPath Integrated Pathology, Inc.
14/092,036	US	Pending	METHODS FOR MEASURING CARCINOEMBRYONIC ANTIGEN	11/27/2013	3	RedPath Integrated Pathology, Inc.

Pat. No/ App. No.	Country	<u>Status</u> :	<u>Title</u>	Filing Date	Issue Date	Assignee
61/824623	US	Expired	METHODS FOR MEASURING CARCINOEMBRYONIC ANTIGEN	05/17/2013		RedPath Integrated Pathology, Inc.
61/840963	US	Expired	METHODS FOR MEASURING CARCINOEMBRYONIC ANTIGEN	06/28/2013		RedPath Integrated Pathology, Inc.

Red Path Copyrights:

None.

Red Path Trademarks

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1 No. 1		Reg./App.	Filing	Reg.			
Country	Mark	<u>No.</u>	<u>Date</u>	<u>Date</u>	<u>Goods</u>	Registrant	<u>Status</u>
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