PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3918394

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CLARIENT DIAGNOSTIC SERVICES, INC.	12/22/2015

RECEIVING PARTY DATA

Name:	GE HEALTHCARE BIO-SCIENCES CORP.
Street Address:	100 RESULTS WAY
City:	MARLBOROUGH
State/Country:	MASSACHUSETTS
Postal Code:	01752

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15104492

CORRESPONDENCE DATA

Fax Number: (414)721-2572

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: 414-721-3797
Email: HCTechnologies@ge.com
Correspondent Name: HEEJA YOO-WARREN
Address Line 1: 9900 W. INNOVATION DRIVE
Address Line 2: RP 2131
Address Line 4: WAUWATOSA, WISCONSIN 53226

ATTORNEY DOCKET NUMBER:	272359-3
NAME OF SUBMITTER:	HEEJA YOO-WARREN
SIGNATURE:	/Heeja Yoo-Warren/
DATE SIGNED:	06/15/2016

Total Attachments: 45
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INTELLECTUAL PROPERTY AND SOFTWARE ASSIGNMENT

This **INTELLECTUAL PROPERTY AND SOFTWARE ASSIGNMENT** ("Assignment"), effective as of December 22, 2015 ("Effective Date"), is by and among Clarient Diagnostic Services, Inc., a corporation organized and existing under the laws of the State of Delaware, Clarient, Inc., a corporation organized and existing under the laws of the State of Delaware (collectively, "Assignor"), on the one hand, and GE Healthcare Bio-Sciences Corp., a corporation organized and existing under the laws of the State of Delaware ("Assignee"), on the other hand.

BACKGROUND

WHEREAS, Assignor desires to sell, assign and transfer to Assignee all Software and other Intellectual Property (excluding Trademarks) related or otherwise pertaining to the software, technology, and service platforms generally referred to as "MultiOmyx", "Kermit", and "Olympus", including, without limitation, the Software and other Intellectual Property described on Exhibit A attached hereto, and all Intellectual Property Rights (excluding rights in and to Trademarks) therein and thereto (collectively, the "Assigned Platforms");

WHEREAS, Assignor also desires to sell, assign and transfer to Assignee all Intellectual Property described on Exhibit B attached hereto, and all Intellectual Property Rights therein and thereto (collectively, the "Assigned IP", and together with the Assigned Platforms, the "Assigned Property"); and

WHEREAS, Assignee now desires to acquire the Assigned Property from Assignor.

AGREEMENT

NOW, THEREFORE, for good and valuable consideration, including, without limitation, as set forth in Section 3 below, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1. **Definitions.** Capitalized terms used herein shall have the meanings ascribed to them in this Assignment or in the following definitions:

   (a) "Intellectual Property" means and includes all of the following: (a) works of authorship, including Software; (b) trade secrets, know-how, confidential information, inventions (whether or not patentable), research and development, formulas, compositions, manufacturing and production processes and techniques, technical data, designs, drawings, specifications, customer and supplier lists, pricing and cost information, financial reports and information, and business and marketing plans and proposals; (c) compilations of data (as well as the underlying data) and all related documentation, including documentation regarding the procedures used in connection with the collection, processing and distribution of data contained therein, together with documentation regarding the attributes of the data contained therein or the relationships among such data (including (i) whether the data must be numerical, alphabetic or alphanumeric, (ii) range or type limitations of the data or (iii) one-to-one, one-to-many, or many-to-many relationships with other data) and documentation regarding data structures and formats, and file structures and formats (collectively, "Databases"); (d) trademarks, service marks, certification marks, trade dress, logos, trade names, corporate names, domain names and any other indication of source or origin, together with all goodwill symbolized thereby or

associated therewith (collectively, "Trademarks"); and (e) any and all other forms of technology (whether or not embodied in any tangible form and including all instantiations and embodiments of the foregoing).

(b) "Intellectual Property Rights" means and includes all of the following types in any jurisdiction throughout the world: (a) all rights arising out of or associated with works of authorship, including exclusive exploitation rights, copyrights, and moral rights; (b) all patents and applications therefor, including rights in and to the inventions disclosed therein, and all future patents that may issue from such patents and patent applications throughout the world, and all foreign counterparts, divisionals, continuations in whole or in part, reexaminations, reissues, substitutions or extensions of any of the preceding (collectively "Future Patents"), and the right to claim priority to any of the preceding (collectively, "Patents"), (c) all rights arising out of or associated with Trademarks, including all common law rights, trademark registrations and applications for the same, (d) all rights arising out of or associated with trade secrets, know-how and confidential information; (e) all other rights of any kind or nature in any Intellectual Property; and (f) all registrations, applications, reissues, continuations, continuations-in-part, divisionals, extensions, renewals and reexaminations for any of the rights referred to in clauses (a) through (e) above.

(c) "Software" means computer software and programs (including, without limitation, all Source Code and object code form), and Databases in any form, including any computer software or programs that support or provide websites, website content, member or user lists and information associated therewith or links in websites, operating systems and specifications, data, databases, database management code, utilities, graphical user interfaces, menus, images, icons, links, forms, methods of processing, software engines, platforms, and data formats, all versions, updates, corrections, enhancements, and modifications thereto, and to the extent existing, all related documentation, developer notes, comments and annotations.

(d) "Source Code" means the human readable source code of the software program to which it relates (in both paper and electronic form), in the programming language in which such software was written, together with all related flow charts, comments, job control language, other procedural code and technical documentation, including a description of the procedure for generating object code, all of a level and in form sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, such software.

2. **Assignment.** Assignor hereby irrevocably and unconditionally grants, conveys, sells, assigns and transfers to Assignee all of Assignor's worldwide right, title and interest in and to the Assigned Property, together with any and all goodwill connected with and symbolized by the Assigned IP, the same to be held and enjoyed by Assignee for its own use and enjoyment and the use and enjoyment of its successors, assigns and 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, including, without limitation, all rights in and to all income, royalties, license fees, damages and payments now or hereafter due or payable with respect thereto, all causes of action (whether in law or in equity) with respect thereto, and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment.

3. **Consideration.** In consideration for the rights granted to Assignee herein, Assignee shall pay to Clarient Diagnostic Services, Inc. one dollar ($1.00 USD) in consideration of the Assigned Property other than the Software listed in Exhibit A, and the net book value as of November 30, 2015 in consideration of the Software associated with "MultiOmyx" , "Kermit" and "Olympus", as listed in Exhibit A.

4. **Taxes.** Prices do not include sales, use, gross receipts, excise, valued-added, services, or any similar transaction or consumption taxes ("Taxes"). Assignee acknowledges and agrees it shall be responsible for the payment of any such Taxes to Assignor unless it otherwise timely provides Assignor with a valid exemption certificate or direct pay permit. In the event Assignor is assessed Taxes, interest and penalty by any taxing authority, Assignee agrees to reimburse Assignor for any such Taxes, including any interest or penalty assessed thereon. Each party is responsible for any personal property or real estate taxes on property that the party owns or leases, for franchise and privilege taxes on its business, and for taxes based on its net income or gross receipts.

5. **General.** This Assignment is binding upon, and inures to the benefit of, the parties hereto and their respective legal representatives, successors and assigns. It is understood that any finding of invalidity of one assignment as effected hereby shall not affect the assignment of other Assigned Property. All questions concerning the construction, validity and interpretation of this Assignment and the performance of the obligations imposed by this Assignment shall be governed by, and construed in accordance with, the laws of the State of New York without regard to the choice of law principles thereof. Upon request by Assignee, Assignor will execute additional documents and take other actions as may be necessary or desirable to record or memorialize the assignments of the Assigned Property set forth herein, and to vest in Assignee such right, title, and interest in and to the Assigned Property as sold, assigned and transferred to Assignee hereunder. If Assignee or its successor or assignee is unable, for any reason, to obtain a signature of Assignor on a document necessary to perfect the transfer or assignment of the Assigned Property to Assignee, Assignor hereby irrevocably appoints Assignee as Assignor's agent and attorney-in-fact, which appointment is coupled with an interest, to act for and on behalf of Assignor to execute, verify, and file any documents with the same legal force and effect as if executed by Assignor. Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any officer of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of intellectual property protection or applications as aforesaid, to issue the Future Patents to Assignee and its successors, assigns and other legal representatives in accordance with the terms of this instrument. No waiver, modification or change of any of the provisions of this Assignment shall be valid unless in writing and signed by the party against whom such claimed waiver, modification or change is sought to be enforced.

6. **Counterparts.** This Assignment may be executed in two (2) or more counterparts (facsimile and electronic transmission included), each of which shall be deemed an original, but all of which together shall constitute one (1) and the same instrument. After facsimile or electronic transmission, the parties agree to execute and exchange documents with original signatures.

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IN WITNESS WHEREOF, the parties hereto, through their authorized representatives, have caused this Assignment to be duly executed and delivered as of the Effective Date.

Clarient Diagnostic Services, Inc.
as Assignor

By: _____
Name:
Title:

Clarient, Inc.
as Assignor

By: _____
Name: Cynthia Collins
Title: CEO

GE Healthcare Bio-Sciences Corp.,
as Assignee

By: SC Godwin
Name: Sian C Godwin
Title: Head of Licensing

Exhibit A
Assigned Platforms

Patents

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
259457	US	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	61/618132	30/03/2012			Clarient Diagnostic Services, Inc.	Expired
259457	WO	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	US2013/033249	21/03/2013	WO2013148448A1		Clarient Diagnostic Services, Inc.	Expired
259457	EP	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	13715086.8	06/10/2014	2831591		Clarient Diagnostic Services, Inc.	Filed
259457	CN	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	201380017702.4	29/09/2014	104520713		Clarient Diagnostic Services, Inc.	Filed
259457	IN	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	7531/DELNP/2014	09/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	RU	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	2014137129	15/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	US	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	14/387861	25/09/2014	20150065371A1		Clarient Diagnostic Services, Inc.	Filed
259457	JP	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	2015-503378	25/09/2014			Clarient Diagnostic Services, Inc.	Filed

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
259457	AU	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	2013240127	15/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	NZ	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	630091	04/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	SG	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	11201406105U	26/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	KR	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	10-2014-7027562	30/09/2014			Clarient Diagnostic Services, Inc.	Filed
259457	CA	IMMUNOFLUORESCENCE AND FLUORESCENT-BASED NUCLEIC ACID ANALYSIS ON A SINGLE SAMPLE	2867508	15/09/2014			Clarient Diagnostic Services, Inc.	Filed
260517	US	DETECTION OF TISSUE REGIONS IN MICROSCOPE SLIDE IMAGES	61/618141	30/03/2012			Clarient Diagnostic Services, Inc.	Expired
260522	US	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	61/618282	30/03/2012			Clarient Diagnostic Services, Inc.	Expired
260522	WO	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	US2013/033286	21/03/2013	WO2013148458		Clarient Diagnostic Services, Inc.	Expired
260522	CN	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	201380017701.X	29/09/2014	104520689		Clarient Diagnostic Services, Inc.	Filed
260522	IN	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	7533/DELNP/2014	09/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	RU	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	2014137125	15/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	US	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	14/388057	25/09/2014	20150050650A1		Clarient Diagnostic Services, Inc.	Filed
260522	EP	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	13716556.9	06/10/2014	2831559		Clarient Diagnostic Services, Inc.	Filed

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
260522	JP	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	2015-503398	25/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	AU	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	2013240137	17/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	NZ	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	630115	04/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	SG	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	11201406104Q	26/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	KR	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	10-2014-7027571	30/09/2014			Clarient Diagnostic Services, Inc.	Filed
260522	CA	METHODS FOR GENERATING AN IMAGE OF A BIOLOGICAL SAMPLE	2867359	12/09/2014			Clarient Diagnostic Services, Inc.	Filed
262117	US	Multiplexed Assay Method for Classical Hodgkin Lymphoma Diagnosis	61/652984	30/05/2012			Clarient Diagnostic Services, Inc.	Expired
262117	US	Multiplexed Assay Method for Classical Hodgkin Lymphoma Diagnosis	61/719427	28/10/2012			Clarient Diagnostic Services, Inc.	Expired
262117	US	Multiplexed Assay Method for Classical Hodgkin Lymphoma Diagnosis	61/733978	06/12/2012			Clarient Diagnostic Services, Inc.	Expired
262117	WO	Multiplexed Diagnosis Method for Classical Hodgkin Lymphoma	US2013/043404	30/05/2013	WO2013181418		Clarient Diagnostic Services, Inc.	Expired
262117	US	Multiplexed Diagnosis Method for Classical Hodgkin Lymphoma	14/402724	21/11/2014	20150105283A1		Clarient Diagnostic Services, Inc.	Filed
262143	US	Multiplexed Assay Method for Lung Cancer Classification	61/653192	30/05/2012			Clarient Diagnostic Services, Inc.	Expired
262143	WO	MULTIPLEXED ASSAY METHOD FOR LUNG CANCER CLASSIFICATION	PCT/US2013/042822	28/05/2013	WO2013181127		Clarient Diagnostic Services, Inc.	Expired
262143	US	MULTIPLEXED ASSAY METHOD FOR LUNG CANCER CLASSIFICATION	14/402895	21/11/2014	20150141278A1		Clarient Diagnostic Services, Inc.	Filed
262153	EM	DISPLAY SCREEN WITH USER INTERFACE	001351357-0001	15/11/2012		001351357-0001	Clarient Diagnostic Services, Inc.	Issued

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
262406	US	CHEMICAL BLEACHING OF DYES USING RADICAL PHOTOINITATORS	61/737940	17/12/2012			Clarient Diagnostic Services, Inc.	Expired
262406	WO	CHEMICAL BLEACHING OF DYES USING RADICAL PHOTOINITIATORS	US2013/070751	19/11/2013	2014099222		Clarient Diagnostic Services, Inc.	Filed
262406	US	CHEMICAL BLEACHING OF DYES USING RADICAL PHOTOINITIATORS	14/439749	30/04/2015			Clarient Diagnostic Services, Inc.	Filed
263645	US	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES IN THE PRESENCE OF SCAVENGER ADDITIVES	61/735586	11/12/2012			Clarient Diagnostic Services, Inc.	Expired
263645	WO	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	US2013/074328	11/12/2013	WO2014093455		Clarient Diagnostic Services, Inc.	Expired
263645	US	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	14/648176	28/05/2015			Clarient Diagnostic Services, Inc.	Filed
263645	EP	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	13814736.8	12/06/2015	2932270		Clarient Diagnostic Services, Inc.	Filed
263645	BR	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	BR 11 2015 013403 3	09/06/2015			Clarient Diagnostic Services, Inc.	Filed
263645	CA	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	2893953	04/06/2015			Clarient Diagnostic Services, Inc.	Filed
263645	JP	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	2015-545948	09/06/2015			Clarient Diagnostic Services, Inc.	Filed
263645	CN	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	201380072726.X	11/08/2015			Clarient Diagnostic Services, Inc.	Filed
263645	AU	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	2013359393	20/05/2015			Clarient Diagnostic Services, Inc.	Filed
263645	SG	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	11201504129S	26/05/2015			Clarient Diagnostic Services, Inc.	Filed
263645	KR	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	10-2015-7018103	07/07/2015			Clarient Diagnostic Services, Inc.	Filed
263645	NZ	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	708935	09/06/2015			Clarient Diagnostic Services, Inc.	Filed
263645	RU	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	2015120176	28/05/2015			Clarient Diagnostic Services, Inc.	Filed
263645	IN	PHOTOACTIVATED CHEMICAL BLEACHING OF DYES	4422/DELNP/2015	22/05/2015			Clarient Diagnostic Services, Inc.	Filed
264553	US	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	61/806841	30/03/2013			Clarient Diagnostic Services, Inc.	Expired

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
264553	WO	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	US2014/031275	20/03/2014	2014165327		Clarient Diagnostic Services, Inc.	Filed
264553	AU	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	2014248479	20/08/2015			Clarient Diagnostic Services, Inc.	Filed
264553	CA	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	FILED	16/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	CN	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON					Clarient Diagnostic Services, Inc.	Unfiled
264553	EP	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	14779365.7	17/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	IN	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	FILED	24/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	JP	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON		25/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	KR	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	10-2015-7026263	23/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	RU	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	2015139001	14/09/2015			Clarient Diagnostic Services, Inc.	Filed
264553	NZ	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	711515	27/08/2015			Clarient Diagnostic Services, Inc.	Filed
264553	SG	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON					Clarient Diagnostic Services, Inc.	Unfiled
264553	US	MICROSCOPE SLIDES WITH QUALITY CONTROLS THEREON	14/778453	18/09/2015			Clarient Diagnostic Services, Inc.	Filed
265272	US	MULTIPLEXED METHOD FOR DIAGNOSING CLASSICAL HODGKIN LYMPHOMA	61/719428	28/10/2012			Clarient Diagnostic Services, Inc.	Expired
265272	US	MULTIPLEXED METHOD FOR DIAGNOSING CLASSICAL HODGKIN LYMPHOMA	61/733990	06/12/2012			Clarient Diagnostic Services, Inc.	Expired
265272	WO	Multiplexed Method for Diagnosing Classical Hodgkin Lymphoma	US2013/043409	30/05/2013	2014065889		Clarient Diagnostic Services, Inc.	Expired
265272	US	Multiplexed Method for Diagnosing Classical Hodgkin Lymphoma	14/402816	21/11/2014	20150226743A1		Clarient Diagnostic Services, Inc.	Filed
266863	EM	DISPLAY SCREEN WITH ANIMATED USER INTERFACE	001373674-0001	06/06/2013	2013/146	001373674-0001	Clarient Diagnostic Services, Inc.	Issued
266864	US	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN	61/734032	06/12/2012			Clarient Diagnostic Services, Inc.	Expired

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
266864	US	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN	61/828890	30/05/2013			Clarient Diagnostic Services, Inc.	Expired
266864	US	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING SNAPSHOT RECORDS THEREOF	61/889820	11/10/2013			Clarient Diagnostic Services, Inc.	Expired
266864	WO	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	US2013/073698	06/12/2013	2014089499		Clarient Diagnostic Services, Inc.	Expired
266864	US	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	14/649465	03/06/2015			Clarient Diagnostic Services, Inc.	Filed
266864	CN	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	201380063700.9	05/06/2015			Clarient Diagnostic Services, Inc.	Filed
266864	EP	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	13859805.7	25/05/2015	2929453		Clarient Diagnostic Services, Inc.	Filed
266864	JP	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	2015-545892	02/06/2015			Clarient Diagnostic Services, Inc.	Filed
266864	KR	SYSTEMS AND METHODS FOR SELECTION AND DISPLAY OF BIOMARKER EXPRESSION IN A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	10-2015-7014690	03/06/2015			Clarient Diagnostic Services, Inc.	Filed

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
266865	US	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN	61/734028	06/12/2012			Clarient Diagnostic Services, Inc.	Expired
266865	US	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN	61/828875	30/05/2013			Clarient Diagnostic Services, Inc.	Expired
266865	US	SYSTEMS AND METHODS FOR SPLITSCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING SNAPSHOT RECORDS THEREOF	61/889802	11/10/2013			Clarient Diagnostic Services, Inc.	Expired
266865	WO	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	US2013/073691	06/12/2013	2014089494		Clarient Diagnostic Services, Inc.	Expired
266865	US	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	14/649828	04/06/2015			Clarient Diagnostic Services, Inc.	Filed
266865	CN	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	201380063691.3	05/06/2015			Clarient Diagnostic Services, Inc.	Filed
266865	EP	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	13860606.6	25/05/2015	2929420		Clarient Diagnostic Services, Inc.	Filed
266865	JP	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	2015-545890	01/06/2015			Clarient Diagnostic Services, Inc.	Filed
266865	KR	SYSTEMS AND METHODS FOR SPLIT SCREEN DISPLAY OF A BIOLOGICAL SPECIMEN AND FOR CAPTURING RECORDS THEREOF	10-2015-7014689	03/06/2015			Clarient Diagnostic Services, Inc.	Filed
266866	US	DISPLAY SCREEN WITH USER INTERFACE	29/439076	06/12/2012			Clarient Diagnostic Services, Inc.	Filed
266866	EM	DISPLAY SCREEN WITH ANIMATED USER INTERFACE	001373682-0001	06/06/2013	2013/146	001373682-0001	Clarient Diagnostic Services, Inc.	Issued

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
266867	US	DISPLAY SCREEN WITH USER INTERFACE	29/439069	06/12/2012			Clarient Diagnostic Services, Inc.	Filed
266867	EM	DISPLAY SCREEN WITH ANIMATED USER INTERFACE	001373690-0001	06/06/2013	2013/146	001373690-0001	Clarient Diagnostic Services, Inc.	Issued
272359	US	MODULAR IMAGE ANALYSIS SYSTEM AND METHOD	61/921690	30/12/2013			Clarient Diagnostic Services, Inc.	Expired
272359	WO	MODULAR IMAGE ANALYSIS SYSTEM AND METHOD	US2014/071087	18/12/2014	2015/0102919		Clarient Diagnostic Services, Inc.	Filed
280321	US	GRAPHICAL USER INTERFACE FOR A DISPLAY SCREEN OR A PORTION THEREOF	29/512893	23/12/2014			Clarient Diagnostic Services, Inc.	Filed
280321	EM	GRAPHICAL USER INTERFACE FOR A DISPLAY SCREEN OR A PORTION THEREOF	002720425	17/06/2015		002720425	Clarient Diagnostic Services, Inc.	Issued
280767	US	METHOD FOR NUCLEIC ACID ANALYSIS FROM A REGION OF INTEREST IN A BIOLOGICAL SAMPLE	62/112199	05/02/2015			Clarient Diagnostic Services, Inc.	Filed

Trade Secrets

Docket Title	List of All Docket Inventors	Docket Action Date
Accelerated Decoverslipping	FRANK MONDELLO, Alexander Ross -Lead, Antti Seppo, Michael Lazare, Alexander Bordwell	10/04/2013
Accelerated Decoverslipping	FRANK MONDELLO, Alexander Ross -Lead, Antti Seppo, Michael Lazare, Alexander Bordwell	22/05/2013
Accelerated Decoverslipping	FRANK MONDELLO, Alexander Ross -Lead, Antti Seppo, Michael Lazare, Alexander Bordwell	27/11/2013
MultiOmyx Process for Antibody Direct Conjugation to Fluorescent Dye	RONG (Sarah) ZHANG, Sean Dinn, Lakshmi Kaanumalle, Alexander Bordwell -Lead	07/10/2013
MultiOmyx Process for Antibody Direct Conjugation to Fluorescent Dye	RONG (Sarah) ZHANG, Sean Dinn, Lakshmi Kaanumalle, Alexander Bordwell -Lead	27/11/2013
Pre-Bleaching and Multiple Inter-round Bleaching Cycles During Multiplexing	Kevin Kenny, Alex Corwin, Denise Hollman-Hewgley -Lead, Antti Seppo, Michael Lazare, Alexander Bordwell	22/10/2013
Pre-Bleaching and Multiple Inter-round Bleaching Cycles During Multiplexing	Kevin Kenny, Alex Corwin, Denise Hollman-Hewgley -Lead, Antti Seppo, Michael Lazare, Alexander Bordwell	27/11/2013

Cardiff SOPs

DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
SOP-0711	SOP	B	General Slide Preparation	12-Jun-2014	12-Jun-2016
SOP-0712	SOP	A	MulitOmyx- Dye Inactivation and DAPI Staining	3-Oct-2013	3-Oct-2015
SOP-0713	SOP	A	Testing Antigen Effects	3-Oct-2013	3-Oct-2015
SOP-0714	SOP	A	Testing Initial Direct Conjugate	3-Oct-2013	3-Oct-2015
SOP-0715	SOP	A	MultiOmyx-Determining The Optimal Concentration For A Direct Conjugate For a Specific Tissue Type.	3-Oct-2013	3-Oct-2015
SOP-0716	SOP	B	Antibody Scale Up Conjugation For Direct Immunofluorescence.	12-Jun-2014	12-Jun-2016
SOP-0717	SOP	A	Reviewing Grayscale Images in Image.	3-Oct-2013	3-Oct-2015
SOP-0718	SOP	B	Initial Antibody Conjugation For Direct Immunofluorescence	12-Jun-2014	12-Jun-2016
SOP-0719	SOP	A	Imaging For Antibody Characterization	3-Oct-2013	3-Oct-2015
SOP-0720	SOP	A	PRIMARY Ab DOWNSELECTION	3-Oct-2013	3-Oct-2015
SOP-0721	SOP	A	Guidelines For Selection of Antibodies of Tissue For Characterization	3-Oct-2013	3-Oct-2015
SOP-0722	SOP	A	Multiplex Sequencing Analysis Guidelines And Verification Study Design.	3-Oct-2013	3-Oct-2015
SOP-0723	SOP	A	Autofluorescence Removal Using Image.	3-Oct-2013	3-Oct-2015
SOP-0724	SOP	A	Re-validating a new lot of Direct Conjugate	3-Oct-2013	3-Oct-2015
SOP-0725	SOP	B	Multiplexing sequencing verification Assay	12-Jun-2014	12-Jun-2016
SOP-0726	SOP	A	White Point Determination	3-Oct-2013	3-Oct-2015
SOP-0738	SOP	A	Imaging Multiplexing Assay Using IAS	3-Oct-2013	3-Oct-2015
SOP-0740	SOP	A	Pharma Services Accessioning	3-Oct-2013	3-Oct-2015
FORM-0220	FORM	C	Antibody Calculation Worksheet	5-Sep-2013	#REF!
Form-0195	FORM	C	Decloaker	18-Jun-2014	#REF!

DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
35031-018	FORM	C	Laboratory Equipment problem Log	12-Jun-2013	#REF!
FORM-0226	FORM	B	MultiOmyx Clinical Laboratory – Antibody Purification & Conjugation Travel Document	20-Jun-2014	#REF!
SOP-0156	SOP	A	MultiOmyx R&D-Leica Autostainer	21-Jun-2013	#REF!
SOP-0174	SOP	A	MulitOmyx Clinical Laboratory - Leica CV5030 Automated Coverslipper	1-Jul-2013	#REF!
SOP-0154	SOP	A	MultiOmyx R&D-Leica Bond III	21-Jun-2013	#REF!

R&D, Clinical, and Pharma SOPs

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
R & D	Form-0193	FORM	C	R&D Exposure Time Calculation Worksheet	7-May-2015	7-May-2017
R & D	FORM-0197	FORM	A	Lot Phase-In Travel Document	24-Jun-2013	24-Jun-2015
R & D	Form-0225	FORM	A	MultiOmyx-Antibody Purification And Conjugation Travel Document	27-Jun-2013	27-Jun-2015
R & D	Form-0232	FORM	A	Training Checklist-MultiOmyx R&D: Antibody Purification	27-Jun-2013	27-Jun-2015
R & D	Form-0233	FORM	A	Training Checklist-MultiOmyx R&D: Antibody Direct Conjugation To Fluorescent Dye	27-Jun-2013	27-Jun-2015
R & D	Form-0234	FORM	A	Training Checklist-MultiOmyx R&D: Hodgkin Lymphoma Reagent Phase In	27-Jun-2013	27-Jun-2015
R & D	Form-0235	FORM	A	Training Checklist-MultiOmyx R&D: Hodgkin Lymphoma Multiplexing Assay	27-Jun-2013	27-Jun-2015
R & D	Form-0575	FORM	B	MultiOmyx Operational Qualification Antigen Retrieval System	9-Jun-2014	9-Jun-2016
R & D	SOP-0146	SOP	A	MultiOmyx R&D -Hodgkin Lymphoma Multiplexing Assay	6-Jun-2013	6-Jun-2015
R & D	SOP-0147	SOP	C	MultiOmyx R&D-Hodgkin Lymphoma Multiplexing Assay Making Antibody Dilutions	14-May-2015	14-May-2017
R & D	SOP-0148	SOP	B	MultiOmyx R&D-Decoverslipping	14-May-2015	14-May-2017
R & D	SOP-0149	SOP	A	MultiOmyx R&D-Hodgkin Lymphoma Multiplexing Imaging	6-Jun-2013	6-Jun-2015
R & D	SOP-0150	SOP	B	MultiOmyx R&D-Reagent Phase IN	15-May-2015	15-May-2017

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
R & D	SOP-0153	SOP	B	Stitched Image Generation For Hodgkin Lymphoma	2-Apr-2015	2-Apr-2017
R & D	SOP-0154	SOP	A	MultiOmyx R&D-Leica Bond III	21-Jun-2013	21-Jun-2015
R & D	SOP-0155	SOP	B	MultiOmyx R&D-CV5030 Automated Coverslipper	14-May-2015	14-May-2017
R & D	SOP-0156	SOP	A	MultiOmyx R&D-Leica Autostainer	21-Jun-2013	21-Jun-2015
R & D	SOP-0157	SOP	B	MultiOmyx R&D-Antibody Conjugation For Direct Immunofluroescence	14-May-2015	14-May-2017
R & D	SOP-0158	SOP	B	Antibody Purification For Antibody Conjugations	18-Jun-2014	18-Jun-2016
R & D	SOP-0162	SOP	B	MultiOmyx INCell 2000 Routine Calibrations	29-Aug-2014	29-Aug-2016
R & D	SOP-0163	SOP	A	MultiOmyx R&D-IN Cell 2000 Troubleshooting	21-Jun-2013	21-Jun-2015
R & D	SOP-0168	SOP	A	Qualifications, Operations And Maintenance Of Ohaus Balance Model PA214	21-Jun-2013	21-Jun-2015
R & D	SOP-0212	SOP	B	MultiOmyx R&D Hodgkin Lymphoma Control Block Tissue Procurement Procedure	14-May-2015	14-May-2017
R & D	SOP-0213	SOP	A	MultiOmyx R&D Laboratory-Antibody Conjugation Lot Phase In on Image App	22-Nov-2013	22-Nov-2015
Clinical	35531-001A	FORM	C	NanoDrop Maintenance Log	14-May-2015	14-May-2017
Clinical	Form-0189	FORM	B	MultiOmyx-Certificate Of Analysis For Direct Conjugates	6-May-2014	6-May-2016
Clinical	FORM-0220	FORM	D	Antibody Calculation Worksheet	15-Sep-2014	15-Sep-2016
Clinical	FORM-0226	FORM	B	MultiOmyx Clinical Laboratory – Antibody Purification & Conjugation Travel Document	20-Jun-2014	20-Jun-2016
Clinical	FORM-0227	FORM	B	MultiOmyx Clinical Laboratory – Lot Phase-In Travel Document	11-Jun-2014	11-Jun-2016
Clinical	FORM-0236	FORM	E	IN CELL EXPOSURE COUNTS	7-May-2015	7-May-2017
Clinical	FORM-0243	FORM	B	MultiOmyx Tissue Procurement Log	10-Jun-2014	10-Jun-2016
Clinical	FORM-0246	FORM	B	MultiOmyx Control Batch Control Accessioning Log	10-Jun-2014	10-Jun-2016
Clinical	FORM-0247	FORM	B	MultiOmyx Batch Control Verification Log	26-Sep-2014	26-Sep-2016
Clinical	FORM-0252	FORM	B	Training Checklist – MultiOmyx Clinical Laboratory: Antibody Direct Conjugation to Fluorescent Dye	21-Feb-2014	21-Feb-2016
Clinical	FORM-0253	FORM	B	Training Checklist – MultiOmyx Clinical Laboratory Hodgkin Lympohoma Reagent Phase-In	21-Feb-2014	21-Feb-2016

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
Clinical	FORM-0254	FORM	B	Training Checklist – MultiOmyx Clinical Laboratory Antibody Purification	21-Feb-2014	21-Feb-2016
Clinical	FORM-0256	FORM	C	Training Checklist – MultiOmyx Clinical Laboratory HL Multiplexing Assay	25-Apr-2014	25-Apr-2016
Clinical	FORM-0278	FORM	C	Calibration Test Acceptamce Test Report Template	7-May-2015	7-May-2017
Clinical	FORM-0316	FORM	C	MultiOmyx Clinical Laboratory- Hodgkin Lymphoma Multiplexing Imaging QC Checklist	5-Sep-2013	5-Sep-2015
Clinical	FORM-0508	FORM	A	Certificate Of Analysis For Batch Control Block	13-Nov-2013	13-Nov-2015
Clinical	FORM-0557	FORM	A	MultiOmyx Hodgkin Lymphoma Tissue Block Screening	26-Jun-2014	26-Jun-2016
Clinical	FORM-0579	FORM	A	Multiomyx Antibody Characterization Checklist	21-Feb-2014	21-Feb-2016
Clinical	FORM-0724	FORM	A	MultiOmyx- Instrument Performance Qualification	31-Oct-2014	31-Oct-2016
Clinical	SOP-0171	SOP	A	Qualification, Operation & Maintenance of OHaus Balance Model PA214	1-Jul-2013	1-Jul-2015
Clinical	SOP-0173	SOP	B	MultiOmyx Clinical- Laboratory Antibody Conjugation for Direct Immunofluorescence	25-Sep-2014	25-Sep-2016
Clinical	SOP-0174	SOP	B	MulitOmyx Clinical Laboratory - Leica CV5030 Automated Coverslipper	15-Aug-2014	15-Aug-2016
Clinical	SOP-0175	SOP	A	MultiOmyx Clinical Laboratory - Leica Autostainer	1-Jul-2013	1-Jul-2015
Clinical	SOP-0176	SOP	D	MultiOmyx Clinical Laboratory – Antibody Conjugation Lot phase In on Image App	14-May-2015	14-May-2017
Clinical	SOP-0177	SOP	C	MultiOmyx Clinical Laboratory - Hodgkin Lymphoma Multiplexing Assay – Making Antibody Dilutions	15-Aug-2014	15-Aug-2016
Clinical	SOP-0179	SOP	C	MultiOmyx Clinical Laboratory - Decoverslipping	15-Aug-2014	15-Aug-2016
Clinical	SOP-0180	SOP	C	MultiOmyx Clinical Laboratory - Leica Bond III	19-Mar-2015	19-Mar-2017
Clinical	SOP-0181	SOP	B	MultiOmyx Clinical Laboratory – Antibody Purification for Antibody Conjugations	15-Aug-2014	15-Aug-2016
Clinical	SOP-0182	SOP	B	MultiOmyx Clinical Laboratory – Stitched Image Generation for HL	2-Apr-2015	2-Apr-2017
Clinical	SOP-0183	SOP	G	MultiOmyx Clinical Laboratory - Hodgkin Lymphoma Multiplexing Assay Using Production Software	17-Apr-2015	17-Apr-2017
Clinical	SOP-0184	SOP	B	MultiOmyx Clinical Laboratory – Imaging	3-Oct-2014	3-Oct-2016

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
				and Slide QC		
Clinical	SOP-0189	SOP	D	MultiOmyx Clinical Laboratory – HL Control Block Tissue Procurement	3-Oct-2014	3-Oct-2016
Clinical	SOP-0191	SOP	C	MultiOmyx Clinical Laboratory – Training SOP	21-Feb-2014	21-Feb-2016
PHARMA	FORM-0166	FORM	C	Balance Calibration Log	2-Apr-2015	2-Apr-2017
PHARMA	Form-0195	FORM	D	Decloaker Log	20-Mar-2015	20-Mar-2017
PHARMA	Form-0219	FORM	C	Leica CV5030 Automated Coverslipper Maintenance Log	11-Sep-2014	11-Sep-2016
PHARMA	FORM-0224	FORM	D	Incell Calibaration Check/Maintenance Log	11-Sep-2014	11-Sep-2016
PHARMA	FORM-0421	FORM	A	Amount of Antibody Required For Initial Direct Conjugation	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0422	FORM	A	Amount of Antibody Required For Scale Up Conjugation	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0423	FORM	A	Initial Cy5 Direct Conjugate Dye to Protein Calculation	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0424	FORM	A	Initial Cy3 Direct Conjugate Dye to Protein Calculation	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0425	FORM	A	Certificate Of Analysis For Initial Direct Conjugation	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0438	FORM	A	Multiplexing Sequence Analysis Travel Doc	4-Oct-2013	4-Oct-2015
PHARMA	FORM-0492	FORM	C	Leica Bond Maintenance Log	15-Sep-2014	15-Sep-2016
PHARMA	FORM-0548	FORM	A	MultiOmyx System Installation Acceptance	14-Jan-2014	14-Jan-2016
PHARMA	FORM-0549	FORM	A	Calibration Plate Certification	14-Jan-2014	14-Jan-2016
PHARMA	FORM-0630	FORM	A	Certificate Of Analysis For Pharma Direct Conjugation	6-May-2014	6-May-2016
PHARMA	FORM-0634	FORM	B	Reagent Preparation Record	11-Sep-2014	11-Sep-2016
PHARMA	FORM-0643	FORM	C	MultiOmyx Initial Conjugation Travel Document Template	14-May-2015	14-May-2017
PHARMA	FORM-0706	FORM	B	MultiOmyx Pharma Services Lab Stain and Image QC Checklist	23-Feb-2015	23-Feb-2017
PHARMA	FORM-0834	FORM	A	MultiOmyx- Pharma Services- Antibody Receipt Log	20-May-2015	20-May-2017
PHARMA	FORM-0835	FORM	A	IAS XML Checklist	20-May-2015	20-May-2017
PHARMA	FORM-0862	FORM	A	Study Antibody Calculation Sheet	7-May-2015	7-May-2017
PHARMA	SOP-0711	SOP	C	General Slide Preparation	14-May-2015	14-May-2017
PHARMA	SOP-0712	SOP	A	MulitOmyx- Dye Inactivation and DAPI Staining	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0713	SOP	C	Testing Antigen Effects	13-Feb-2015	13-Feb-2017
PHARMA	SOP-0714	SOP	C	Testing Initial Direct Conjugate	14-May-2015	14-May-2017
PHARMA	SOP-0715	SOP	A	MultiOmyx-Determining The Optimal Concentration For A Direct Conjugate For a Specific Tissue Type.	3-Oct-2013	3-Oct-2015

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
PHARMA	SOP-0716	SOP	B	Antibody Scale Up Conjugation For Direct Immunofluorescence.	12-Jun-2014	12-Jun-2016
PHARMA	SOP-0717	SOP	A	Reviewing Grayscale Images in Image.	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0718	SOP	E	Initial Antibody Conjugation For Direct Immunofluorescence	9-Apr-2015	9-Apr-2017
PHARMA	SOP-0719	SOP	B	Imaging For Antibody Characterization	17-Apr-2015	17-Apr-2017
PHARMA	SOP-0720	SOP	C	PRIMARY Ab DOWNSELECTION	14-May-2015	14-May-2017
PHARMA	SOP-0721	SOP	B	Guidelines For Selection of Antibodies of Tissue For Characterization	13-Feb-2015	13-Feb-2017
PHARMA	SOP-0722	SOP	B	Multiplex Sequencing Analysis Guidelines And Verification Study Design.	20-Mar-2015	20-Mar-2017
PHARMA	SOP-0723	SOP	A	Autofluorescence Removal Using Image.	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0724	SOP	B	Re-validating a new lot of Direct Conjugate	13-Feb-2015	13-Feb-2017
PHARMA	SOP-0725	SOP	C	Multiplexing sequencing verification Assay	20-Mar-2015	20-Mar-2017
PHARMA	SOP-0726	SOP	A	White Point Determination	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0735	SOP	A	LIMS Experimental Tracking	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0736	SOP	A	LIMS Inventory Tracking	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0737	SOP	A	Technology Transfer of R&D Mulitplexed Assay To Pharma Services Group	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0738	SOP	C	Imaging Multiplexing Assay Using IAS	17-Apr-2015	17-Apr-2017
PHARMA	SOP-0739	SOP	B	Updating Exposure Times And White Points In IAS	13-Feb-2015	13-Feb-2017
PHARMA	SOP-0740	SOP	A	Pharma Services Accessioning	3-Oct-2013	3-Oct-2015
PHARMA	SOP-0823	SOP	A	MultiOmyx Coverslipping Process	18-Jul-2014	18-Jul-2016
PHARMA	SOP-0824	SOP	A	MultiOmyx Deparaffinization and Rehydration Process	18-Jul-2014	18-Jul-2016
PHARMA	SOP-0825	SOP	A	MultiOmyx Manual Slide Staining Process	18-Jul-2014	18-Jul-2016
PHARMA	SOP-0828	SOP	A	MultiOmyx IN Cell 2200 Weekly Calibration Check	14-May-2015	14-May-2017
PHARMA	SOP-0829	SOP	A	MultiOmyx INCell 2200 Troubleshooting	14-May-2015	14-May-2017
PHARMA	SOP-0830	SOP	A	MultiOmyx INCell 2200 Routine Calibrations	14-May-2015	14-May-2017
PHARMA	SOP-0871	SOP	A	MultiOmyx- Manual Dye Inactivation and DAPI Staining	5-Sep-2014	5-Sep-2016
PHARMA	SOP-0885	SOP	B	MultiOmyx Technical Support Procedures	14-May-2015	14-May-2017
PHARMA	SOP-0891	SOP	A	MultiOmyx Immunofluorescence and Singleplexing DNA Fluorescent In Situ Hybridization Combined Assay	27-Apr-2014	27-Apr-2016
PHARMA	SOP-0907	SOP	B	MultiOmyx Laboratory- Operation, Calibration, Maintenance and Qualification of Decloakers.	14-May-2015	14-May-2017

MultiOmyx Department	DOCUMENT NUMBER	DOCUMENT TYPE	DOCUMENT VERSION	DOCUMENT TITLE	EFFECTIVE DATE	EXPIRATION DATE
PHARMA	SOP-0934	SOP	A	MultiOmyx Laboratory- Operation, Maintenance and Qualificatio of the MultiOmyx Automated Slide Loading System	4-Dec-2014	4-Dec-2016
PHARMA	SOP-0972	SOP	B	MultiOmyx Laboratory- INCELL 2200 Calibration Acceptance Test Using IAS	14-May-2015	14-May-2017
PHARMA	SOP-0990	SOP	A	MultiOmyx Laboratory- Operation, Calibration, Maintenance and Qualification of INCell 2200 Imaging Platform	14-May-2015	14-May-2017

Software

Component	Type	Technology	Notes	Including, without limitation, the following files
Image acquisition system (IAS) UI	Application	C# .NET	Used by laboratory personnel to scan slides. Interfaces with the IN Cell 2200 firmware control, as well as the MultiOmyx services to scan slides	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll GEHealthcare.ASiST.IAS.Shared.Types.dll GEHealthcare.ASiST.Shared.ImageProcessing.dll GEHealthcare.MultiOmyx.Shared.ImageProcessing.CoreLibrary.dll 10x_cy3.tif 10x_cy3.xml 10x_cy5.tif 10x_cy5.xml 10x_dapi.tif 10x_dapi.xml 10x_fitc.tif 10x_fitc.xml 20x_high_na_cy3.tif 20x_high_na_cy3.xml 20x_high_na_cy5.tif 20x_high_na_cy5.xml 20x_high_na_dapi.tif 20x_high_na_dapi.xml 20x_high_na_fitc.tif 20x_high_na_fitc.xml 2x_cy3.tif 2x_cy3.xml 2x_cy5.tif

Component	Type	Technology	Notes	Including, without limitation, the following files
				2x_cy5.xml
				2x_dapi.tif
				2x_dapi.xml
				2x_fitc.tif
				2x_fitc.xml
				40x_high_na_cy3.tif
				40x_high_na_cy3.xml
				40x_high_na_cy5.tif
				40x_high_na_cy5.xml
				40x_high_na_dapi.tif
				40x_high_na_dapi.xml
				40x_high_na_fitc.tif
				40x_high_na_fitc.xml
				10x.xml
				20x_high_na.xml
				2x.xml
				40x_high_na.xml
				IncellPrior2.xml
				dvlenses.tab
				InCell2000MicroscopeParameters.xml
				InCell2200MicroscopeParameters.xml
				MicroscopeCalibration.xml
				TiltCheckMoves.xml
				Timestamps.xml
				GEHealthcare.ASiST.IAS.Scanner.BarcodeReader.dll
				GEHealthcare.ASiST.IAS.Scanner.Microscope.dll
				GEHealthcare.ASiST.IAS.Scanner.MicroscopeDriver.dll
				GEHealthcare.ASiST.IAS.Scanner.MotorolaBarcodeReader.dll
				Slide0.png
				Slide1.png
				Slide2.png
				Slide3.png
				TEST_Cy3.tif
				TEST_Cy5.tif
				TEST_DAPI.tif
				TEST_FITC.tif
				barcode_config.xml
				BarcodeSimulatorConfiguration.xml
				MicroscopeSimulatorConfiguration.xml
				GEHealthcare.ASiST.IAS.Scanner.BarcodeReader.Simulator.dll
				GEHealthcare.ASiST.IAS.Scanner.Domain.dll
				GEHealthcare.ASiST.IAS.Scanner.Microscope.Simulator.dll

Component	Type	Technology	Notes	Including, without limitation, the following files
				GEHealthcare.ASiST.IAS.Scanner.ScanPlanning.dll GEHealthcare.ASiST.IAS.Scanner.Workflow.dll multi_barcode_dll.dll multi_barcode_dll.lib Dialog_Properties.xml test1_dapi_test2_cy3_s1_S001_P000_Z00_cy3.tif GEHealthcare.ASiST.IAS.Scanner.UI.exe.config Image Acquisition System Help.pdf GEHealthcare.ASiST.IAS.Scanner.UI.exe
IAS Automation Host	Application	C# .NET	A "headless" version of IAS that hosts a service interface to allow IAS to be commanded by an external robotics interface (currently PAA Overlord).	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll GEHealthcare.ASiST.IAS.Shared.Types.dll GEHealthcare.ASiST.Shared.ImageProcessing.dll GEHealthcare.MultiOmyx.Shared.ImageProcessing.CoreLibrary.dll 10x_cy3.tif 10x_cy3.xml 10x_cy5.tif 10x_cy5.xml 10x_dapi.tif 10x_dapi.xml 10x_fitc.tif 10x_fitc.xml 20x_high_na_cy3.tif 20x_high_na_cy3.xml 20x_high_na_cy5.tif 20x_high_na_cy5.xml 20x_high_na_dapi.tif 20x_high_na_dapi.xml 20x_high_na_fitc.tif 20x_high_na_fitc.xml 2x_cy3.tif 2x_cy3.xml 2x_cy5.tif 2x_cy5.xml 2x_dapi.tif 2x_dapi.xml 2x_fitc.tif 2x_fitc.xml 40x_high_na_cy3.tif 40x_high_na_cy3.xml 40x_high_na_cy5.tif 40x_high_na_cy5.xml

Component	Type	Technology	Notes	Including, without limitation, the following files
				40x_high_na_dapi.tif
				40x_high_na_dapi.xml
				40x_high_na_fitc.tif
				40x_high_na_fitc.xml
				10x.xml
				20x_high_na.xml
				2x.xml
				40x_high_na.xml
				IncellPrior2.xml
				dvlenses.tab
				InCell2000MicroscopeParameters.xml
				InCell2200MicroscopeParameters.xml
				MicroscopeCalibration.xml
				TiltCheckMoves.xml
				Timestamps.xml
				GEHealthcare.ASiST.IAS.Scanner.BarcodeReader.dll
				GEHealthcare.ASiST.IAS.Scanner.Microscope.dll
				GEHealthcare.ASiST.IAS.Scanner.MicroscopeDriver.dll
				GEHealthcare.ASiST.IAS.Scanner.MotorolaBarcodeReader.dll
				Slide0.png
				Slide1.png
				Slide2.png
				Slide3.png
				TEST_Cy3.tif
				TEST_Cy5.tif
				TEST_DAPI.tif
				TEST_FITC.tif
				barcode_config.xml
				BarcodeSimulatorConfiguration.xml
				MicroscopeSimulatorConfiguration.xml
				GEHealthcare.ASiST.IAS.Scanner.BarcodeReader.Simulator.dll
				GEHealthcare.ASiST.IAS.Scanner.Domain.dll
				GEHealthcare.ASiST.IAS.Scanner.Microscope.Simulator.dll
				GEHealthcare.ASiST.IAS.Scanner.ScanPlanning.dll
				GEHealthcare.ASiST.IAS.Scanner.Workflow.dll
				multi_barcode_dll.dll
				multi_barcode_dll.lib
				GEHealthcare.ASiST.IAS.Scanner.Automation.Host.exe.config
				GEHealthcare.ASiST.IAS.Scanner.Automation.Host.exe
				GEHealthcare.ASiST.IAS.Scanner.Automation.Service.dll

Component	Type	Technology	Notes	Including, without limitation, the following files
IAS Image processing service	Windows service	C# .NET	Performs stitching, background subtraction and blending of individual images to create whole region of interest images	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll GEHealthcare.ASiST.Shared.DataServices.Proxy.dll GEHealthcare.ASiST.IAS.Shared.Types.dll GEHealthcare.ASiST.Shared.ImageProcessing.dll GEHealthcare.MultiOmyx.Shared.ImageProcessing.CoreLibrary.dll wisdom.txt MultiOmyx.CAT_10x_20x_40x.ImagingWorkflow.xml TestDefinitions.Schema.xsd SimulatedVStainerImage.tif GEHealthcare.ASiST.IAS.ImagingWorkflow.Host.exe.config ImagingWorkflowDialogProperties.xml GEHealthcare.ASiST.IAS.ImagingWorkflow.Host.exe GEHealthcare.ASiST.IAS.ImagingWorkflow.Service.dll GEHealthcare.ASiST.Shared.ImageProcessing.Simulator.dll
Data service	Windows service	C# .NET	Provides an interface to the primary MultiOmyx data repository.	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll MO_sqlite_empty.db GEHealthcare.ASiST.Shared.DataServices.Proxy.dll DataServiceDialogProperties.xml GEHealthcare.ASiST.DataServices.Host.exe.config GEHealthcare.ASiST.DataServices.Host.exe GEHealthcare.ASiST.DataServices.Service.dll
Lab workflow service	Windows service	C# .NET	Manages the state of slides (and batches of slides) as they progress through the multiplex test steps.	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll Dialog_Properties.xml MultiOmyx.CAT_10x_20x_40x.LabWorkflow.xml GEHealthcare.ASiST.LWS.Host.exe.config Pharma~Pantomics MNT241.xml Pharma~Pantomics MTU391.xml Pharma~Template 2.xml Stainers.xml GEHealthcare.ASiST.LWS.Host.exe GEHealthcare.ASiST.LWS.Service.dll PrinterLabelTemplate.xsl

Component	Type	Technology	Notes	Including, without limitation, the following files
Lab workflow system (LWS) UI	Application	C# .NET	Used by laboratory personnel to created and process batches of slides with the selected multiplex test. This application is a client of the Lab workflow service.	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll Dialog_Properties.xml GEHealthcare.ASiST.LWS.UI.exe.config GEHealthcare.ASiST.LWS.UI.vshost.exe.config Lab Workflow System Help.pdf GEHealthcare.ASiST.LWS.UI.exe GEHealthcare.ASiST.LWS.Domain.dll
IAS Image processing library	DLL	C++	Performs calibration correction, slide alignment, registration, stitching and blending. Used by the IAS application and image processing service.	
Tile server	IIS Web app	.NET, C++	Serves image tiles to the web viewer, performs image blends, generates and delivers thumbnails	GEHealthcare.ASiST.Shared.Utility.dll Web.config Web.Debug.config Web.Release.config Handler.ashx Dialog_Properties.xml Configuration.settings GEHealthcare.ASiST.TilingServer.CaseManagerService.dll GEHealthcare.ASiST.TilingServer.ClientUI.xap GEHealthcare.ASiST.TilingServer.ImageProcessing.dll GEHealthcare.ASiST.TilingServer.TilingServer.dll GEHealthcare.ASiST.TilingServer.Website.dll TiledTiffReader.dll CaseService.svc ClientUITestPage.aspx ClientUITestPage.html Configuration.Designer.cs
Web-based viewer	IIS Web app	Silverlight	Used for ROI selection, image QC, case review and reporting.	Web.config Web.Debug.config Web.Release.config Handler.ashx innershadow.png MainBackground.png AppManifest.xml clientaccesspolicy.xml crossdomain.xml packages.config PathWorklist.xml ViewerDialogProperties.xml ReadMe.txt Clarient.Web.SL.PWS.dll Clarient.Web.SL.PWS.xap GE.MultiOmyx.Shared.dll

Component	Type	Technology	Notes	Including, without limitation, the following files
				GE.MultiOmyx.Silverlight.Data.dll GE.MultiOmyx.Silverlight.UI.dll GE.MultiOmyx.Web.Main.dll GE.MultiOmyx.Web.ServiceProxy.dll Prs.SharedResources.dll Global.asax Release.pubxml.user ServiceReferences.ClientConfig AppManifest.xaml Default.aspx Exporter.ashx slbwm.js
pyGEITK	DLL, Python wrapper	C++, Python	A library of image analysis algorithms such as segmentation and quantification, along with a thin wrapper to allow the functions to be called from Python.	pyGEITK PTiff.docx _pyGEITK.pyd PTiffUtil.py pyGEITK.py
GEMIA	Scripts	Python	A library of image analysis components with interfaces to the key pyGEITK algorithms and related utilities. Used as the building blocks for image analysis workflows.	__init__.py CellPathUtils.py combinehists.py combineimages.py combineimages2rgb.py combinemasks.py computecellmarkermetrics.py computecellmorphfeat.py computeemetrics.py computeemetricshsc.py computeemetricshsc2.py computemaskmetrics.py computevesselmetrics.py concatfilelists.py concattables.py correlimages.py diffimages.py extracttable.py filtermasks.py filtertable.py histmarker.py kit_ip_countcellsbiomarkers.py kit_ip_countcellsphenotypes.py kit_ip_layerscellclass.py kit_ip_layershmprofile.py pivottable.py

Component	Type	Technology	Notes	Including, without limitation, the following files
				receivefile.py segcell.py segcyt.py segepi.py segextranuc.py seghierarchsubcell.py segmem.py segnuc.py segvessel.py splittable.py splittablewithindex.py threshhist.py threshimage.py threshquantile.py utils.py
Layers	Application	C# .NET	Windows application for viewing MultiOmyx images and analysis results.	MO_sqlite_empty.db AnalysisInputs.xml Annotations.xml DefaultUserSettings.xml Layers.exe.config xjtnet.xml CellQueriesExample.pdf ColorBlendsExample.pdf ConfigFileWizardExample.pdf ExploreClustersExample.pdf GeneralToolFeatures.pdf ImageReviewExample.pdf ManualConfigFileGenerationExample.pdf Layers.exe DynamicForms.dll GraphControl.dll MultiOmicsVizLibrary.dll xjtnet.dll
Multiplex test publisher	Application	C# .NET	Editor for creating, modifying and publishing the XML-based multiplex test definitions.	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll TestDefinitions.Schema.xsd GEHealthcare.ASiST.Shared.MultiplexTestPublisher.UI.exe.config RulesConfiguration.xml GEHealthcare.ASiST.Shared.MultiplexTestPublisher.UI.exe GEHealthcare.ASiST.Shared.MultiplexTestPublisher.Domain.dll Blend Definition Long Report.xsl Blend Definition Short Report.xsl Blend Output Report.xsl

Component	Type	Technology	Notes	Including, without limitation, the following files
				Dependency Report.xsl Protocol Linkage Report.xsl Scan Plan Channel Report.xsl
Re-blend tool	Application	C# .NET	Admin tool for repeating image processing (for example after modifying blend definitions or parameters)	GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll GEHealthcare.ASiST.IAS.Shared.Types.dll GEHealthcare.ASiST.Shared.ImageProcessing.dll wisdom.txt GEHealthcare.MultiOmyx.Shared.ImageProcessing.CoreLibrary.dll MultiOmyx.CAT_10x_20x_40x.LabWorkflow.xml MultiOmyx.CAT_10x_20x_40x.ImagingWorkflow.xml ImageProcessingReblendTool.exe.config ImageProcessingReblendTool.exe GEHealthcare.MultiOmyx.Shared.ImageProcessing.CoreLibrary.lib
MOPOC	Application	C, Lua	Application developed and maintained by GE Global Research (GRC). MOPOC is a precursor to IAS and is used to generate the calibration data needed to run MultiOmyx scans.	modules.list Accession.hbm.xml asistWS.properties BlendAlgorithm.hbm.xml BlendAlgorithmParameters.hbm.xml CanvasTransform.hbm.xml ChannelName.hbm.xml Image.hbm.xml ImageFormat.hbm.xml ImageType.hbm.xml NewRegion.hbm.xml Patient.hbm.xml Physician.hbm.xml Protocol.hbm.xml ProtocolRoundPrep.hbm.xml ProtocolStep.hbm.xml SampleRegion.hbm.xml Slide.hbm.xml SlideImage.hbm.xml SlideImageSet.hbm.xml Specimen.hbm.xml StainName.hbm.xml web.xml WorkListItem.hbm.xml Accession.class AccessionCheckOutStatusRequest.class AccessionRequest.class AccessionResponse.class

Component	Type	Technology	Notes	Including, without limitation, the following files
				AccessionSlideRequest.class
				Address.class
				AdminAgent.class
				AnnotationRegion.class
				AnnotationRegionRequest.class
				AnnotationRegionResponse.class
				AsistBase.class
				AsistService.class
				Attachment.class
				BlendAlgorithm.class
				BlendAlgorithmParameters.class
				CanvasRegion$Point.class
				CanvasRegion$Rect.class
				CanvasRegion.class
				CanvasTransform.class
				CaptureRegion.class
				CaptureRegionRequest.class
				CaptureRegionResponse.class
				CaptureSetting.class
				ChangeControlModule.class
				ChannelName.class
				CheckInAccessionRequest.class
				CheckOutAccessionRequest.class
				CheckOutAccessionResponse.class
				Client.class
				Contact.class
				Context.class
				Correlation.class
				CorrelationResponse.class
				Courier.class
				CreateSlideImageSetModel.class
				CreateSlideImageSetRequest.class
				DataElement.class
				DataNotFoundException.class
				DBCommand.class
				DBParameter.class
				DBUtility.class
				DeleteRegionsRequest.class
				DeleteSlideImageSetRequest.class
				DOSItem.class
				Experiments.class
				Facility.class

Component	Type	Technology	Notes	Including, without limitation, the following files
				FovCell.class
				GeneralResp.class
				GetConnection.class
				GetConnection2.class
				HeartbeatRequest.class
				Identification.class
				Image.class
				ImageCreationComplete.class
				ImageFormat.class
				ImageObjective.class
				ImageType.class
				ISecurityModule.class
				IsReadOnlyException.class
				KeyValue.class
				KeyValueSort.class
				LabResult.class
				Logger.class
				LogInRequest.class
				LogInResponse.class
				Logo.class
				LogOutRequest.class
				Methodology.class
				Microscope.class
				MockSecurityModule.class
				NameValue.class
				NameValueSet.class
				NameValueUtils.class
				NewRegion.class
				NotCheckedOutException.class
				Note.class
				NotImplementedException.class
				OldDBCommand.class
				OrderedTest.class
				Patient.class
				Person.class
				Physician.class
				PointInfo.class
				Priority.class
				ProfessionalReport.class
				Protocol.class
				ProtocolRoundPrep.class
				ProtocolStep.class

Component	Type	Technology	Notes	Including, without limitation, the following files
				QACode.class
				Region.class
				RegionType.class
				ROIBase.class
				SampleRegion.class
				SaveAnnotationRegionRequest.class
				SaveCaptureRegionRequest.class
				SaveImageSetRegionRequest.class
				SavePreferencesRequest.class
				SaveRegionResponse.class
				SaveSlideImageSetRequest.class
				SendToLabRequest.class
				SendToLabResponse.class
				ServiceRequest.class
				ServiceResponse.class
				SessionFactoryUtil.class
				Slide.class
				SlideDataModule$RegionSet.class
				SlideDataModule.class
				SlideImage.class
				SlideImageSet.class
				SlideImageSetRegionRequest.class
				SlideImageSetRegionResponse.class
				SlideImageSetResponse.class
				SlideOnScopeResp.class
				SlideProtocol.class
				SlideRoundChannel.class
				SlideRoundMoves.class
				Slides.class
				SlidesResponse.class
				SlideState.class
				Specimen.class
				StainName.class
				Status.class
				SystemResetRequest.class
				SystemUser.class
				TechReport.class
				TestComponents.class
				Tests.class
				UOFM.class
				UOFMSet.class
				UpdateSlideImageSetModel.class

Component	Type	Technology	Notes	Including, without limitation, the following files
				UpdateSlideImageSetRequest.class
				UserPreference.class
				UserWorkListItemStatusRequest.class
				WorkListDataModule.class
				WorkListItem.class
				WorkListRequest.class
				WorkListResponse.class
				ZoomGroup.class
				ZoomGroupRequest.class
				ZoomGroupResponse.class
				worklist.sql
				10x_cy3.tif
				10x_cy3.xml
				10x_cy5.tif
				10x_cy5.xml
				10x_dapi.tif
				10x_dapi.xml
				10x_fitc.tif
				10x_fitc.xml
				20x_high_na_cy3.tif
				20x_high_na_cy3.xml
				20x_high_na_cy5.tif
				20x_high_na_cy5.xml
				20x_high_na_dapi.tif
				20x_high_na_dapi.xml
				20x_high_na_fitc.tif
				20x_high_na_fitc.xml
				2x_cy3.tif
				2x_cy3.xml
				2x_cy5.tif
				2x_cy5.xml
				2x_dapi.tif
				2x_dapi.xml
				2x_fitc.tif
				2x_fitc.xml
				40x_high_na_cy3.tif
				40x_high_na_cy3.xml
				40x_high_na_cy5.tif
				40x_high_na_cy5.xml
				40x_high_na_dapi.tif
				40x_high_na_dapi.xml
				40x_high_na_fitc.tif

Component	Type	Technology	Notes	Including, without limitation, the following files
				40x_high_na_fitc.xml
				10x.xml
				20x_high_na.xml
				2x.xml
				40x_high_na.xml
				IncellPrior2.xml
				wisdom.txt
				README
				config.tcl
				10x_cy3.dat
				10x_cy5.dat
				10x_dapi.dat
				10x_distortion.tsv
				10x_fitc.dat
				20x_high_na_cy3.dat
				20x_high_na_cy5.dat
				20x_high_na_dapi.dat
				20x_high_na_distortion.tsv
				20x_high_na_fitc.dat
				2x_cy3.dat
				2x_cy5.dat
				2x_dapi.dat
				2x_distortion.tsv
				2x_fitc.dat
				40x_high_na_cy3.dat
				40x_high_na_cy5.dat
				40x_high_na_dapi.dat
				40x_high_na_distortion.tsv
				40x_high_na_fitc.dat
				BGComparisonWithThorPowerMeter_multipleLocations.lua
				BGLinearityComparisonWithThorPowerMeter.lua
				Blank_glass_subtraction_results.csv
				Distortion_results.csv
				image_app.xml
				PM100USB_power_logging.lua
				ver_info.txt
				addregion.png
				addspot.png
				disableFOV.png
				enableFOV.png
				imageapp_tcl_lib.zip
				label.png

Component	Type	Technology	Notes	Including, without limitation, the following files
				move.png
				select.png
				setradius.png
				toggle.png
				102.csv
				104.csv
				105.csv
				106.csv
				108.csv
				109.csv
				10x.dat
				10x_1.tif
				10x_2.tif
				10x_3.tif
				10x_4.tif
				10x_5.tif
				10x_6.tif
				10x_cy3_1.tif
				10x_cy5_1.tif
				10x_dapi_1.tif
				10x_fitc_1.tif
				110.csv
				111.csv
				1110.csv
				121.csv
				1211.csv
				122.csv
				123.csv
				124.csv
				1241.csv
				151.csv
				152.csv
				153.csv
				154.csv
				155.csv
				1551.csv
				156.csv
				157.csv
				158.csv
				159.csv
				160.csv
				161.csv

Component	Type	Technology	Notes	Including, without limitation, the following files
				162.csv
				163.csv
				1631.csv
				20x_high_na.dat
				20x_high_na_1.tif
				20x_high_na_2.tif
				20x_high_na_3.tif
				20x_high_na_4.tif
				20x_high_na_5.tif
				20x_high_na_6.tif
				20x_high_na_cy3_1.tif
				20x_high_na_cy5_1.tif
				20x_high_na_dapi_1.tif
				20x_high_na_fitc_1.tif
				210.csv
				211.csv
				212.csv
				2x.dat
				2x_1.tif
				2x_2.tif
				40x_high_na.dat
				40x_high_na_1.tif
				40x_high_na_2.tif
				40x_high_na_3.tif
				40x_high_na_4.tif
				40x_high_na_cy3_1.tif
				40x_high_na_cy5_1.tif
				40x_high_na_dapi_1.tif
				40x_high_na_fitc_1.tif
				FieldFlattening_results.csv
				master.tsv
				mono_Bob1.tsv
				mono_CD15.tsv
				mono_CD20.tsv
				mono_CD3.tsv
				mono_CD30.tsv
				mono_CD30_10x.tsv
				mono_CD45.tsv
				mono_CD79a.tsv
				mono_cy3.tsv
				mono_cy3_10x.tsv
				mono_cy3_40x.tsv

Component	Type	Technology	Notes	Including, without limitation, the following files
				mono_cy5.tsv
				mono_dapi.tsv
				mono_dapi_10x.tsv
				mono_dapi_40x.tsv
				mono_fitc.tsv
				mono_fitc_10x.tsv
				mono_fitc_40x.tsv
				mono_OCT2.tsv
				mono_Pax5.tsv
				moves.csv
				stain_params.tsv
				vDAB_Bob1.tsv
				vDAB_CD15.tsv
				vDAB_CD20.tsv
				vDAB_CD3.tsv
				vDAB_CD30.tsv
				vDAB_CD30_10x.tsv
				vDAB_CD45.tsv
				vDAB_CD79a.tsv
				vdab_cy3.tsv
				vdab_cy5.tsv
				vdab_fitc.tsv
				vDAB_OCT2.tsv
				vDAB_Pax5.tsv
				vhe.tsv
				vhe_10x.tsv
				vhe_40x.tsv
				vs_40x_MonoCy3_noafr.tsv
				vs_MonoCy3_noafr_16-bit.tsv
				vs_MonoCy5_no_afr_16-bit.tsv
				vs_MonoDAPI_noafr_16_bit.tsv
				vs_VDAB_CD20_no_afr.tsv
				vs_VDAB_CD3_no_afr.tsv
				vs_VDAB_Pax5_no_afr.tsv
				image_app_backup.xml
				image_app_nostagecal.xml
				image_app_stagecal.xml
				image_app_template.xml
				IncelI_cal1.xml
				IncelILGR1.xml
				IncelIPrior4.xml
				stain_templates.xml

Component	Type	Technology	Notes	Including, without limitation, the following files
				01-BuildBatchConfigImageAnalysis.txt
				01-BuildBatchConfigImageAnalysis-anydirectory.txt
				02-RegisterImages.txt
				02-RegisterImages-Batch.txt
				03-AFRemoval-ContrastRatio.txt
				03-AFRemoval-ContrastRatio-Batch.txt
				04-ComputeStatistics.txt
				04-ComputeStatistics-Batch.txt
				05-VirtualStain-Batch.txt
				06-Segment-Quantitate-Batch.txt
				README.txt
				fieldmodel_asist.exe
				Flatten_Field.class
				image app.exe
				Molecular_H_and_E.class
				pos_rollangle_vstain.exe
				register.exe
				register2.exe
				stitch helper.exe
				Virtual_Stain.class
				vstain.exe
				abort_cleanup.bin
				auto_camera_alignment.bin
				auto_exposure.bin
				auto_objective_centration.bin
				auto_objective_scale_factor.bin
				barcode_alignment.bin
				BarcodeLibrary.dll
				blank_glass_median.bin
				cal_check.bin
				cal_globals.bin
				cal_lib.bin
				cal_slide_defn.bin
				calibrate_incell.bin
				csv_lib.bin
				distortion_and_stage_calibration.bin
				dummy_retiga_wrapper.dll
				field_flatten_xml.bin
				image_funcs.dll
				image_tcl.dll
				IncellCtrlLib.dll
				lib.zip

Component	Type	Technology	Notes	Including, without limitation, the following files
				luamatrix_complex.bin
				luamatrix_matrix.bin
				pos_rollangle_stitcher.dll
				ScanMDLL.dll
				stitcher.dll
				tma_scanplan.zip
				xml_calibration.bin
				compile_lua_scripts.bat
				image_lib.R
				installation_builder.nsi
				mbc.jpg
				pos_1.jpg
				pos_2.jpg
				region_picker.uir
				scanplan.cfg
				stitch helper.uir
				stitch_helper.ini
				test.bat
				abort_cleanup.lua
				Analyze_Antibody_Validation.ijm
				Analyze_Multiplexing_Experiment.ijm
				auto_camera_alignment.lua
				auto_camera_rotation.lua
				auto_exposure.lua
				auto_objective_centration.lua
				auto_objective_scale_factor.lua
				auto_scale_and_rotation.lua
				auto_text.lua
				barcode_alignment.lua
				blank_glass_image_repeatability.lua
				blank_glass_median.lua
				blank_glass_median_through_glass.lua
				blank_glass_vs_power_meter.lua
				blank_glass_vs_power_meter_linearity.lua
				cal_check.lua
				cal_globals.lua
				cal_lib.lua
				cal_slide_defn.lua
				calibrate_incell.lua
				camera_alignment.lua
				camera_offset.lua
				compile_lua_scripts.lua

Component	Type	Technology	Notes	Including, without limitation, the following files
				compile_nameswap_bintolua.sh
				compile_nameswap_luatobin.sh
				csv_lib.lua
				daily_check_photobleaching_test.lua
				daily_check_photobleaching_test_rev2.lua
				data_structure_test.lua
				distortion_and_stage_calibration.lua
				distortion_calibration.lua
				distortion_calibration_loadImages.lua
				distortion_calibration_through_glass.lua
				example_find2xGridCenterUsingRscript_and_ParseOutputFile.lua
				exp_test.lua
				exp_time_compare.lua
				exposure_damage_test.lua
				field_flatten_fixed_position.lua
				field_flatten_focusingWithinPlastic.lua
				field_flatten_xml.lua
				Field_Model_-_Grid_Slides.ijm
				Field_Model_-_Tissue_Averaging.ijm
				Flatten_Field.java
				flatten_median.lua
				fluidic_clamp.lua
				fluidic_home.lua
				gen_holder_traceability_files.lua
				get_brenners.lua
				get_star_slanting_edge_across_FOV.lua
				holder_setup.lua
				IC2200_longterm_power_meas.lua
				image_repeatability.lua
				intensity_calibration.lua
				lamp_warmup_test.lua
				laser_damage_test.lua
				laser_scan_first_peak_test.lua
				LEDheating_TypicalExpTimeTest.lua
				linearity_test.lua
				linearity_vs_exp_time_test.lua
				lpt.c
				luamatrix_complex.lua
				luamatrix_matrix.lua
				luamatrix_test.lua
				lumencor.lua
				Makefile

Component	Type	Technology	Notes	Including, without limitation, the following files
				map_slide_z_profile.lua
				matrix_multiply.lua
				measure_power_all_XciteMeter.lua
				Molecular_H_and_E.java
				multiple_image_crop.lua
				multiscope_compare.lua
				objective_centration.lua
				objective_centration_pattern_match.lua
				objective_focus.lua
				objective_scale_factor.lua
				partial_identity_stage_cal.lua
				pattern_match.lua
				pattern_match_2.lua
				picb_raster_scan.lua
				picb_tilt.lua
				picb_tilt_funcs.lua
				PM100USB_lib.lua
				PM100USB_logPowerData.lua
				PM100USB_measPower.lua
				raster_tissue_crop.lua
				register2.c
				rinse_demo.lua
				scale.c
				scale_factor.lua
				Segment_Nuclei_And_Perinuclei.ijm
				serviceClient.tcl
				snr.lua
				stage_cal_image_capture_test.lua
				stage_cal_repeatability.lua
				stage_repeatability.lua
				stage_repeatability_0and10sec.lua
				stain_demo.lua
				string_gmatch_test.lua
				temp.lua
				temp2.lua
				temp3.lua
				test.lua
				test_alien_package.lua
				test_dirnameCleanup.lua
				test_laserScanFirstPeak.lua
				test_PM100USB.lua
				test_svn_parse.lua

Component	Type	Technology	Notes	Including, without limitation, the following files
				test_ThorLabsPowMeterHeating.lua test2.lua testCSVread.lua testCSVwrite.lua tilt_holder.lua TMA_scanplan.tcl tmascanplan.c turret_check.lua turret_repeatability.lua turret_repeatability_0and10sec.lua turret_test.lua Virtual_Stain.java xml_calibration.lua xml_test.lua z_stack_backlash.lua zstacks_blankglass_test.lua zstacks_test.lua
Calibration import tool	Application	C# .NET	Admin tool for importing the calibration data generated by MOPOC into the IAS format.	10x_cy3.tif 10x_cy3.xml 10x_cy5.tif 10x_cy5.xml 10x_dapi.tif 10x_dapi.xml 10x_fitc.tif 10x_fitc.xml 20x_high_na_cy3.tif 20x_high_na_cy3.xml 20x_high_na_cy5.tif 20x_high_na_cy5.xml 20x_high_na_dapi.tif 20x_high_na_dapi.xml 20x_high_na_fitc.tif 20x_high_na_fitc.xml 2x_cy3.tif 2x_cy3.xml 2x_cy5.tif 2x_cy5.xml 2x_dapi.tif 2x_dapi.xml 2x_fitc.tif 2x_fitc.xml 40x_high_na_cy3.tif 40x_high_na_cy3.xml

Component	Type	Technology	Notes	Including, without limitation, the following files
				40x_high_na_cy5.tif 40x_high_na_cy5.xml 40x_high_na_dapi.tif 40x_high_na_dapi.xml 40x_high_na_fitc.tif 40x_high_na_fitc.xml 10x.xml 20x_high_na.xml 2x.xml 40x_high_na.xml IncellPrior2.xml GEHealthcare.ASiST.Shared.Utility.dll GEHealthcare.ASiST.Shared.Types.dll GEHealthcare.ASiST.IAS.Shared.Types.dll GEHealthcare.ASiST.Shared.ImageProcessing.dll dvlenses.tab InCell2000MicroscopeParameters.xml InCell2200MicroscopeParameters.xml MicroscopeCalibration.xml TiltCheckMoves.xml Timestamps.xml GEHealthcare.ASiST.IAS.Scanner.BarcodeReader.dll GEHealthcare.ASiST.IAS.Scanner.Microscope.dll GEHealthcare.ASiST.IAS.Scanner.MicroscopeDriver.dll GEHealthcare.ASiST.IAS.Scanner.MotorolaBarcodeReader.dll GEHealthcare.ASiST.IAS.Scanner.Microscope.ConfigTool.exe.config GEHealthcare.ASiST.IAS.Scanner.Microscope.ConfigTool.exe

Olympus Modules
Application (Web)
User Management
Notification
Logging
Auditing
Data services

Kermit Modules
Application (Web)
PIH Encryption
Practice Management

Test Management
Orders Management
Barcode Generation
User Management
Notification
Printing
Logging
Auditing
Data services
HL7 Outbound connector
HL7 Inbound connector

Exhibit B
Assigned IP

Patents

Docket Number	Cty	Title	Application Number	Application Date	Publication Number	Patent Number	Assignee	Status
274440	US	ACCURATE DETECTION OF RARE GENETIC VARIANTS IN NEXT GENERATION SEQUENCING	61/971792	28/03/2014			Clarient Diagnostic Services, Inc.	Expired
274440	WO	ACCURATE DETECTION OF RARE GENETIC VARIANTS IN NEXT GENERATION SEQUENCING	US2015/021279	18/03/2015			Clarient Diagnostic Services, Inc.	Filed
276951	US	Method for nucleic acid analysis directly from an unpurified biological sample	62/057401	30/09/2014			Clarient Diagnostic Services, Inc.	Expired
276951	WO	METHOD FOR NUCLEIC ACID ANALYSIS DIRECTLY FROM AN UNPURIFIED BIOLOGICAL SAMPLE	US2015/50760	17/09/2015			Clarient Diagnostic Services, Inc.	Filed
285441	US	SELF-CONTAINED SLIDE PROCESSING UNIT FOR BIOLOGICAL SPECIMENS - DOCKET ID 285441					Clarient Diagnostic Services, Inc.	Unfiled
280182A	US	ALGORITHMS FOR AUTOMATED STAINING AND SEGMENTATION QC IN MULTIOMYX ANALYTICS WORKFLOW – DOCKET ID 280182A					Clarient Diagnostic Services, Inc.	Unfiled
286104	US	INTEGRATED MULTIOMYX AND RNASCOPE IMMUNOFLUORESCENCE ASSAY FOR IN SITU MRNA ANALYSIS AND PROTEIN PROFILING FROM A SINGLE FORMALIN-FIXED PARAFFIN-EMBEDDED (FFPE) SLIDE					Clarient Diagnostic Services, Inc.	Unfiled

Domain Names

Gegenomicservices.com
Gelaboratoryandgenomics.com
Gelaboratoryandgenomicservices.com
Gelaboratoryservices.com