PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4170430

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HELOMICS CORPORATION	12/02/2016

RECEIVING PARTY DATA

Name:	CYTOMICS, INC.
Street Address:	C/O HEALTHCARE ROYALTY PARTNERS
Internal Address:	300 ATLANTIC STREET, SUITE 600
City:	STAMFORD
State/Country:	CONNECTICUT
Postal Code:	06901

PROPERTY NUMBERS Total: 35

Property Type	Number
Patent Number:	5728541
Patent Number:	6416967
Patent Number:	6887680
Patent Number:	6900027
Patent Number:	6933129
Patent Number:	7112415
Patent Number:	7314731
Patent Number:	7501260
Patent Number:	7563593
Patent Number:	7678552
Patent Number:	7771963
Patent Number:	8058025
Patent Number:	8183009
Patent Number:	7575868
Patent Number:	7829288
Patent Number:	8039213
Patent Number:	7642048
Patent Number:	8236489
Patent Number:	7972769

PATENT REEL: 040529 FRAME: 0022

504123760

Property Type	Number
Patent Number:	8187800
Application Number:	14668088
Application Number:	13304990
Application Number:	12878239
Application Number:	13029895
Application Number:	12957608
Application Number:	12957604
Application Number:	12820573
Application Number:	12791425
Application Number:	12795286
Application Number:	12530541
Application Number:	12466129
Application Number:	10399563
Application Number:	09095993
PCT Number:	US2009063060
Application Number:	14728912

CORRESPONDENCE DATA

Fax Number: (202)842-7899

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: (206) 452-8700

Email: joliver@cooley.com

Correspondent Name: COOLEY LLP

Address Line 1: 1299 PENNSYLVANIA AVENUE, NW, SUITE 700

Address Line 2: ATTN: PATENT DEPT
Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	306520-2000	
NAME OF SUBMITTER:	ALYSON C. FULLER	
SIGNATURE:	/Alyson C. Fuller/	
DATE SIGNED:	12/05/2016	

Total Attachments: 6

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PATENT REEL: 040529 FRAME: 0023

CONFIRMATORY ASSIGNMENT OF PATENT RIGHTS (Company to Company)

Helomics Corporation, a Delaware corporation having its principal place of business at 94 43rd Street, Pittsburgh, PA 15201 (herein referred to as "Assignor") owns the entire right, title and interest in any Letters Patent(s) ("said patent(s)") and any Patent application(s) ("said application(s)") set forth below, as well as any invention(s) ("said invention(s)") disclosed in said application(s) and said patent(s).

Letters Patent(s)

Patent No.: See Schedule A Assignment Recordation Date: _____ Reel/Frame No.: _____ Title: See Schedule A Patent Application(s) Application Serial No.: See Schedule A File Date: Assignment Recordation Date: _____ Reel/Frame No.: _____ Title: See Schedule A

WHEREAS, Cytomics, Inc., a Delaware corporation (the "Assignee"), is desirous of acquiring the entire right, title, and interest in and to said invention(s), said application(s), and said patent(s), the right to file applications on said invention(s), the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said application(s), the right to recover any and all past, present, and future damages, including provisional or other royalties, for any and all past, present, and future infringements of said application(s) and said patent(s), and the entire right, title, and interest in and to any and all Letters Patent or Patents, United States or foreign, to be obtained for said invention(s) and said application(s);

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to said invention(s), said application(s), and said patent(s), the right to file applications on said invention(s), the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said application(s), including divisions, continuations, and continuations-in-part of said application(s), the

right to recover any and all past, present, and future damages, including provisional or other royalties, for any and all past, present, and future infringements of said application(s) and said patent(s), the entire right, title and interest in and to any and all Letters Patent or Patents, United States or foreign, to be obtained for said invention(s) and said application(s), the entire right, title and interest in and to any and all reissues and extensions of said patent(s), and all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property, and under the Patent Cooperation Treaty, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to said invention(s), said application(s), and said patent(s), and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said invention(s), said application(s), said patent(s), any application claiming priority to said application(s), any reissue or extension of said patent(s), and any United States or foreign Letters Patent or Patents for said invention(s) or said application(s), including interference and derivation proceedings, and any post-grant proceedings (e.g., opposition proceedings, post-grant reviews, *Inter partes* reviews, supplemental examinations, etc.), is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent or Patents for said invention(s), without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents to issue any and all aforementioned patent(s) of the United States to the Assignee, as the Assignee of said invention(s) and the Letters Patent to be issued thereon for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: December 2, 2016	By: Die Santie
	Name: Dane Saglio
	Title: President
	Company: Helomics Corporation
Date:	By:
	Name: Todd C. Davis
	Title: President
	Company: Cytomics, Inc.

AND the Assignor hereby requests the Commissioner of Patents to issue any and all aforementioned patent(s) of the United States to the Assignee, as the Assignee of said invention(s) and the Letters Patent to be issued thereon for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date:	Ву:
	Name: Dane Saglio
	Title: President
	Company: Helomics Corporation
	100
Date: December 2, 2016	By: <u> </u>
	Name: Todd C. Davis
	Title: President

Company: Cytomics, Inc.

Schedule A

Contributed Assets

Patents and Patent Applications:

- 1. U.S. Patent No. 5,728,541, METHOD FOR PREPARING CELL CULTURES FROM BIOLOGIAL SPECIMENS FOR CHEMOTHERAPEUTIC AND OTHER ASSAYS
- 2. U.S. Patent No. 6,416,967, METHOD FOR USING MULTICELLULAR PARTICULATES TO ANALYZE MALIGNANT OR HYPERPROLIFERATIVE TISSUE
- 3. U.S. Patent No. 6,887,680, METHOD FOR PREPARING CELL CULTURES FROM BIOLOGICAL SPECIMENS FOR CHEMOTHERAPEUTIC AND OTHER ASSAYS
- 4. U.S. Patent No. 6,900,027, PRECISE EFFICACY ASSAY METHODS FOR ACTIVE AGENTS INCLUDING CHEMOTHERAPEUTIC AGENTS
- 5. U.S. Patent No. 6,933,129, METHOD FOR CULTURING AND ASSAYING CELLS
- 6. U.S. Patent No. 7,112,415, METHOD OF PREPARING CELL CULTURES FROM BIOLOGICAL SPECIMENS FOR ASSAYING A RESPONSE TO AN AGENT
- 7. U.S. Patent No. 7,314,731, METHOD FOR SELECTING THERAPEUTIC AGENTS FOR CANCER
- 8. U.S. Patent No. 7,501,260, METHODS FOR DETERMINING EFFICACY OF CHEMOTHERAPEUTIC AGENTS FOR A PATIENT PRIOR TO TREATMENT
- 9. U.S. Patent No. 7,563,593, METHOD FOR PREPARING CELL CULTURES FROM BIOLOGICAL SPECIMENS FOR ASSAYING SECRETED FACTORS
- 10. U.S. Patent No. 7,678,552, METHOD FOR SELECTING THERAPEUTIC AGENTS FOR CANCER TREATMENT
- 11. U.S. Patent No. 7,771,963, METHODS FOR DETERMINING EFFICACY OF CHEMOTHERAPEUTIC AGENTS
- 12. U.S. Patent No. 8,058,025, METHODS FOR DETERMINING EFFICACY OF CHEMOTHERAPEUTIC AGENTS
- 13. U.S. Patent No. 8,183,009, ASSAYING CELLULAR MARKER FOR THE EVALUATION OF TUMORS
- 14. U.S. Patent No. 7,575,868, METHODS FOR ASSESSING EFFICACY OF CHEMOTHERAPEUTIC AGENTS
- 15. U.S. Patent No. 7,829,288, METHODS FOR ASSESSING EFFICACY OF CHEMOTHERAPEUTIC AGENTS
- 16. U.S. Patent No. 8,039,213, METHODS FOR ASSESSING EFFICACY OF CHEMOTHERAPEUTIC AGENTS
- 17. U.S. Patent No. 7,642,048, CHEMO-SENSITIVITY ASSAYS USING TUMOR CELLS EXHIBITING PERSISTENT PHENOTYPIC CHARACTERISTICS
- 18. U.S. Patent No. 8,236,489, CHEMO-SENSITIVITY ASSAYS USING TUMOR CELLS EXHIBITING PERSISTENT PHENOTYPIC CHARACTERISTICS
- 19. U.S. Patent No. 7,972,769, METHOD FOR PREPARING CELL CULTURES FROM BIOLOGICAL SPECIMENS FOR CHEMOTHERAPEUTIC AND OTHER ASSAYS

- 20. U.S. Patent No. 8,187,800, METHODS FOR SELECTING ACTIVE AGENTS FOR CANCER TREATMENT
- 21. US 14,728,912, METHODS OF SIMULATING CHEMOTHERAPY FOR A PATIENT
- 22. WO 10,051,552, METHODS OF SIMULATING CHEMOTHERAPY FOR A PATIENT
- 23. Provisional U.S. Patent Application EX VIVO LIQUID BIOPSY
- 24. U.S. Patent Application No. 14/668,088, METHODS OF SIMULATING CHEMOTHERAPY FOR A PATIENT
- 25. U.S. Patent Application No. 13304990, METHODS AND SYSTEMS FOR EVALUATING THE SENSITIVITY OR RESISTANCE OF TUMOR SPECIMENS TO CHEMOTHERAPEUTIC AGENTS
- 26. U.S. Patent Application No. 12878239, CALIBRATION DEVICE AND METHODS FOR USE WITH A LIQUID HANDLER
- 27. U.S. Patent Application No. 13029895, METHODS FOR PREDICTING A CANCER PATIENT'S RESPONSE TO SUNITINIB
- 28. U.S. Patent Application No. 12957608, BIOLOGICAL PATHWAYS ASSOCIATED WITH CHEMOTHERAPY OUTCOME FOR BREAST CANCER
- 29. U.S. Patent Application No. 12957604, MULTI DRUG RESPONSE MARKERS FOR BREAST CANCER CELLS
- 30. U.S. Patent Application No. 12820573, METHODS FOR PREDICTING A CANCER PATIENT'S RESPONSE TO ANTIFOLATE CHEMOTHERAPY
- 31. U.S. Patent Application No. 12791425, METHODS AND SYSTEMS FOR EVALUATING THE SENSITIVITY OR RESISTANCE OF TUMOR SPECIMENS TO CHEMOTHERAPEUTIC AGENTS
- 32. U.S. Patent Application No. 12795286, METHODS FOR PREDICTING A PATIENT'S RESPONSE TO EGFR INHIBITORS
- 33. U.S. Patent Application No. 12530541, METHODS FOR EVALUATING ANGIOGENIC POTENTIAL IN CULTURE
- 34. U.S. Patent Application No. 12466129, METHODS FOR PREDICTING A PATIENT'S RESPONSE TO EGFR INHIBITORS
- 35. U.S. Patent Application No. 10399563, Method for tandem genomic/proteomic analysis of proliferating cells
- 36. U.S. Patent Application No. 09095993, STAINING AGENTS AND PROTOCOLS FOR CHARACTERIZING MALIGNANT CELLS IN CULTURE

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RECORDED: 12/05/2016