Form PTO-1595	RECORDATION FOR	M COVER SHEET U.S. DEPARTMENT OF COMMERCE	
(Rev. 03/01) OMB No. 0651-0027 (exp. 5/31/2002)	PATENTS	U.S. Patent and Trademark Office	
To the Honorable Commissioner of	Patents and Trademarks: Pi	lease record the attached original documents or copy thereof	
Name of conveying party(ies):	7 atoma and Trademarks. Th	Name and address of receiving party(ies)	
Sanford D. Markowitz			
		Name: Howard Hughes Medical Institute	
		Internal Address.	
Additional name(s) of conveying party(ies) attached?	Yes x No	Street Address: 11001 Cedar Rd., UCRC II, Rm. 200	
3. Nature of Conveyance:			
x Assignment	Merger		
Security Agreement	Change of Name	City: Cleveland	
Other	_	State: OH Zip: 44106	
Execution Date: Februa	ary 5, 2004	Additional name(s) & Yes X No	
execution Date: Febru	ary 5, 2004	address(es) attached:	
4. Application number(s) or pater	t number(s):		
If this document is being filed together w	ith a new application, the exec	cution date of the new application is:	
A. Patent Application No.(s):		B. Patent No.(s):	
	49591 08/26/03 3/27085 08/26/03	;	
	34087 09/20/00		
Α	dditional numbers attache	ed? x Yes No	
Name and address of party to wh concerning document should be r		6. Total number of applications and patents involved: . 22	
Name: Anita Varma			
ROPES & GRAY LLP		7. Total fee (37 CFR 3.41) \$880.00	
Internal Address:		Enclosed	
Street Address: One International Place		x Authorized to be charged to deposit account	
One titlemational Place		Authorized to be charged to credit card	
		(Form 2038 énclosed)	
City: St	ate: Zip:	8. Deposit account number:	
Boston MA	· · · · · · · · · · · · · · · · · · ·	18-1945 (Attach duplicate copy of this page if paying by deposit account)	
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Statement and signature.	201101 002 1	IIIO OI AOL	
-	haliaf the formaning infor	mation is true and correct and any attached copy	
is a true copy of the original docum		madon is true and consect and any attached copy	
A-14- \/ 42 000	. ⊅ ்	1- 1/2 Hambat 2004	
Anita Varma – 43,221 Name of Person Signir		Signature Date	
-	es including cover sheet, attach	hments, and documents: 6	
	च्या विकास क्षेत्र का विकास का विकास का		
I hereby certify that this correspondence 5995, on the date shown below.	ls being facsimile transmitted t	to the Patent and Trademark Office, facsimile no. (703) 306-	
Dated: 3-1/-04	Signature: 7milia	A. Pallay (Gallagher)	

PATENT REEL: 014421 FRAME: 0718 11-2004 18:36 ROPES & GRAY P.03

Form PTO-1595	ORDATION FORM CO Continued	
Additional Conveying Party(ies) (1. Continued):	
Additional Assignees (2. Continue	ed):	
Assignee Name:		
Internal Address:		
Street Address:		
Chan	Ptoto	Zin Andor
City:	State:	Zip Code:
Assignee Name:		
Internal Address:		
Street Address:		
City:	State:	Zip Code:
Olly.	State.	zip code
Assignee Name:		
Internal Address:		
Street Address:		
City:	State:	Zip Code:
Additional Applications and/or Pat	tents (4. Contînu	ed):
Additional Patent Application Numbers 4A. Continued:		Additional Patent Numbers 4B. Continued:
09/957661 09/20/01 09/239864 US01/29713 09/20/01 09/878905	01/29/99 06/13/01	
60/327537 10/05/01 10/646640 10/266103 10/07/02 37791/00	08/21/03 05/30/02	
U\$02/31988 10/07/02 60/495064 60/386653 06/05/02 10/650112	08/14/03 08/26/03	
10/456930 06/05/03 US03/27086 US03/18239 06/05/03	08/26/03	parameter and the second secon
Additiona	I numbers attached?	Yes X No

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Docket No.: CWRU

ASSIGNMENT

Assignment made francy 5, 2004 by Sanford D. Markowitz, MD, PhD, ("Inventor") to the Howard Hughes Medical Institute, a Delaware corporation (the "Institute").

Recitals

WHEREAS, Inventor is an employee of the Institute and, as a condition of his employment, has signed the Agreement appended to the Institute's Policy on Intellectual Property (the "Intellectual Property Agreement");

WHEREAS, pursuant to the Intellectual Property Agreement, Inventor has agreed (a) to assign to the Institute all rights he may acquire in any invention, discovery, improvement, or other intellectual property, whether or not patentable or copyrightable, developed directly or indirectly as a result of a program of research financed by Institute funds or funds under the control of the Institute (each a "Subject Property") and (b) to execute any agreements that may be desired by the Institute in connection with such assignment;

WHEREAS, Inventor has, alone or with others invented all matters listed on Appendix A, (the "Inventions"), and the Inventions are a Subject Property; and

WHEREAS, Inventor seeks to make a formal assignment of his interest in the Inventions to the Institute, and the Institute desires the execution of a formal assignment of all Inventor's right, title, and interest in the Inventions.

NOW, THEREFORE, in consideration of the promises contained in and the acts performed and to be performed pursuant to the Intellectual Property Agreement and of other good and valuable consideration, the receipt of which is hereby acknowledged by Inventor, Inventor agrees as follows:

- 1. <u>Assignment</u>. Inventor hereby assigns to the Institute his entire right, title, and interest in the Inventions; any United States patent applications and all corresponding foreign patent applications which are directed to the Inventions, and any and all patents issued therefrom; all United States or foreign divisional and continuation applications based on any of the foregoing, and any and all patents issued therefrom; and all claims which are directed to the Inventions and which may be contained in continuation-in-part applications or in patents which issue therefrom, substitute applications, and reissues or extensions thereof; and all resulting patents.
- 2. <u>Cooperation</u>. Inventor agrees to execute upon request such further assignments, documents, and other instruments as may be necessary or desirable to assigning Inventor's entire right, title and interest in the Inventions to the Institute and to assist the Institute (or others at the direction of the Institute) in applying for, obtaining, and enforcing patents, copyrights, or other rights in the United States and in any foreign country with respect to the Inventions.

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- Parties. The terms and provisions of the Assignment shall inure to the benefit of 3. the Institute and its successors and assigns and shall be binding on the Inventor and his heirs, personal representatives and assigns.
- Warranty. Inventor warrants and represents that he has not entered into any assignment, contract, or understanding in conflict herewith, and that there is no other person or entity whose consent is required in order for the Inventor to make the assignment contained herein.

State of Ohio) County of Outaloga)
Then personally appeared before me the above-named Sanford D. Markowitz, MD, PhD and acknowledged that he executed the foregoing instrument in his authorized capacity this
Notary Public: Larrela Roma
(SEAL) (Print Name)

Inventor: Sanford D. Markowitz, MD PhD

CARMELA THOMAS, NOTARY PUBLIC IN AND FOR THE STATE OF OHIO MY COMMISSION EXPIRES NOV. 1, 2004

My Commission Expires: ___

APPENDIX A

Serial Number	Filing Date Title		Docket Number
Sellat Laninger	2/27/01	NOVEL METHODS OF DIAGNOSIS OF	CWRU-P60-002
	2/2//01	METASTIC COLORECTAL CANCER,	
		COMPOSITIONS AND METHODS OF	
		SCREENING FOR MODULATORS OF	1
		METASTIC COLORECTAL CANCER	
<u></u>	2/27/01	NOVEL METHODS OF DIAGNOSIS OF	CWRU-P61-002
	2/2//01	METASTIC COLORECTAL CANCER,	
		COMPOSITIONS AND METHODS OF	
		SCREENING FOR MODULATORS OF	ļ
	1	METASTIC COLORECTAL CANCER	
-0406006	8/27/02	METHODS FOR TREATING PATIENTS	CWRU-P60-003
60/406296	0/2//04	AND IDENTIFYING THERAPEUTICS	
	8/26/02	METHODS FOR CATEGORIZING	CWRU-P01-003
10/229345	8/20/02	PATIENTS	
	10/10/00	METHODS AND COMPOSITIONS FOR	CWRU-P02-003
10/274177	10/18/02	CATEGORIZING PATIENTS	
	0/06/02	METHODS FOR CATEGORIZING	CWRU-P03-003
10/649591	8/26/03	PATIENTS	
	0/07/02	METHODS AND COMPOSITIONS FOR	CWRU-PWO-003
US03/27085	8/26/03	CATEGORIZING PATIENTS	
<u></u>	0.000	METHODS AND COMPOSITIONS FOR	CWRU-P60-006
60/234087	9/20/00	DETECTING CANCERS ASSOCIATED	10
		WITH METHYLATION OF LMLH1	
		PROMOTER DNA	
		METHODS AND COMPOSITIONS FOR	CWRU-P01-006
09/957661	9/20/01	DETECTING CANCERS ASSOCIATED	1
		WITH METHYLATION OF hMLH1	
		PROMOTER DNA	
		METHODS AND COMPOSITIONS FOR	CWRU-PWO-006
US01/29713	9/20/01	DETECTING CANCERS ASSOCIATED	Owned 2 hours
		WITH METHYLATION OF MALH!	
		WITH WEIGHT CALLON OF MALLET	
		PROMOTER DNA	CWRU-P60-008
60/327537	10/5/01	METHODS AND COMPOSITIONS FOR	CWKO-100-000
		DETECTING COLON CANCERS	CWRU-P01-008
10/266103	10/7/02	METHODS AND COMPOSITIONS FOR	CWKO-FOI-008
10.200		DETECTING COLON CANCERS	CWRU-PWO-008
US02/31988	10/7/02	METHODS AND COMPOSITIONS FOR	CWRO-FWO-008
0302/51500		DETECTING COLON CANCERS	CWRU-P60-010
60/386653	6/5/02	COLON CANCER DIAGNOSTIC TOOLS	
10/456930	6/5/03	METHODS AND COMPOSITIONS FOR	CWRU-P01-010
	0,5.55	DETECTING CANCERS	
TTC02/19230	6/5/03	METHODS AND COMPOSITIONS FOR	CWRU-PWO-010
US03/18239	0,0,00	DETECTING CANCERS	
09/239864	1/29/99	CANCER DIAGNOSIS AND THERAPY	CWRU-P03-011
	1129199	BASED ON MUTATIONS IN TGF-B	
		RECEPTORS	
09/878905	6/13/01	CANCER DIAGNOSIS AND THERAPY	CWRU-P04-011
	0/13/01	BASED ON MUTATIONS IN TGF-B	
	1	RECEPTORS	

PATENT **REEL: 014421 FRAME: 0722**

10/646640 8/21/03		CANCER DIAGNOSIS AND THERAPY BASED ON MUTATIONS IN TGF-B	CWRU-P05-011
37791/00	5/30/02	CANCER DIAGNOSIS AND THERAPY BASED ON MUTATIONS IN TGF-B	CWRU-PA1-011
60/495064	8/14/03	METHOD AND COMPOSITIONS FOR DETECTING COLON CANCERS	CWRU-P60-020
10/650112	8/26/03	METHODS FOR TREATING PATIENTS AND IDENTIFYING THERAPEUTICS	CWRU-P01-044
US03/27086	8/26/03	METHODS FOR TREATING PATIENTS AND IDENTIFYING THERAPEUTICS	CWRU-PWO-044

PATENT REEL: 014421 FRAME; <u>0</u>723