PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Johan van Walsem	02/24/2011
Erik Anderson	02/24/2011
John Licata	02/24/2011
Kevin A. Sparks	02/24/2011
William R. Farmer	02/24/2011
Christopher Mirley	02/24/2011
Jeffrey A. Bickmeier	02/24/2011
Ann D'Ambruoso	03/17/2011
Frank A. Skraly	02/24/2011
Thomas M. Ramseier	03/21/2011
M. S. Sivasubramanian	02/24/2011

RECEIVING PARTY DATA

Name:	Metabolix, Inc.
Street Address:	21 Erie Street
City:	Cambridge
State/Country:	MASSACHUSETTS
Postal Code:	02139

PROPERTY NUMBERS Total: 1

Property Type	Number
PCT Number:	US1124612

CORRESPONDENCE DATA

Fax Number: (978)341-0136

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

9783410036 Phone: Email: tet@hbsr.com Correspondent Name: Alice O. Carroll

> **PATENT REEL: 026244 FRAME: 0618**

501524446

Address Line 1: 530 Virginia Road, P.O. Box 9133 Address Line 2: Hamilton, Brook, Smith & Reynolds, P.C. Address Line 4: Concord, MASSACHUSETTS 01742-9133 ATTORNEY DOCKET NUMBER: 4614.1001-000 NAME OF SUBMITTER: Tiffany Testagrossa Total Attachments: 7 source=46141001000Assignment#page1.tif source=46141001000Assignment#page2.tif source=46141001000Assignment#page3.tif source=46141001000Assignment#page4.tif source=46141001000Assignment#page5.tif source=46141001000Assignment#page6.tif source=46141001000Assignment#page7.tif

> PATENT REEL: 026244 FRAME: 0619

Joint

ASSIGNMENT

WHEREAS, we, Johan van Walsem, Erik Anderson, John Licata, Kevin A. Sparks, William R. Farmer, Christopher Mirley, Jeffrey A. Bickmeier, Ann D'Ambruoso, Frank A. Skraly, Thomas M. Ramseier and M.S. Sivasubramanian, have invented a certain improvement in Process for Gamma-Butyrolactone Production, described in an application for Patent,

the specification of which is about to be filed in the United States Patent Office (use for utility (37 CFR § 1.53(b)) and design filings only);

is about to be filed in the United States Patent Office as a Provisional Application;
the specification of which is United States Application No. filed

the specification of which is a Patent Cooperation Treaty Application, International Application No. PCT/US2011/024612, filed 11 February 2011,

which designates the United States of America;

which was patented under United States Patent No. [].

WHEREAS, Metabolix, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 21 Erie Street, Cambridge, Massachusetts 02139 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America. its territories and all foreign countries, in and to said invention as described in said application. together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements. treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the Patent

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Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature:	announce of the second	
Johan van Wal	sem	
State/Commonwealth /-		
of Massachusetts		
County of Maddle, see		
On this day of figure 20 before me, the undersigned notary public, personally appeared Johan van Walsem,		
personally known to me, or		
proved to me through satisfactory evidence of	identification, which was	
to be the person whose name was signed on the foregacknowledged that he/she signed the foregoing instru		
(SEAL) Notary P	rublic andrew M. Leves Meni	
and the second second	<u> M. Secra, Mas Oscolo, (print name)</u>	
My Com	mission expires <u>03/31/30</u> 14	

Inventor's Signature: 2M 0 (M)	Copur	
Erik Anderson State/Commonwealth of Massachuse 145 County of Massachuse 145		
On this day of the day of 20 1, before me, the undersigned notary public, personally appeared Erik Anderson, personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on acknowledged that he/she signed the foregoing	the foregoing instrument in my presence, and ng instrument as his/her free act and deed.	
(SEAL)	Notary Public and March (print name)	
	My Commission expires 03/3/3014	
Inventor's Signature: John Licata State/Commonwealth of Mussachuce His County of Middleses		
On this day of howard public, personally appeared John Licata,	20, before me, the undersigned notary	
personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
(SEAL)	Notary Public Andrew M. Lean Down. Andrew M. Secra Musciani (print name) My Commission expires 03 / 31 / 304	

Inventor's Signature:		
Kevin A. Sparks State/Commonwealth of Massach weeks County of Massach weeks		
On this day of		
personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
(SEAL) Notary Public On Los Comments (print name)		
My Commission expires 23 /24 / 2019		
Inventor's Signature: When he was a signature of the sign		
William R. Farmer State/Commonwealth of MUSSACTUSE 1 TO County of MANUSEL		
On this day of 2012, before me, the undersigned notary public, personally appeared William R. Farmer,		
personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
(SEAL) Notary Public And Long Commission expires 1/2/2019		

Inventor's Signature: Un while		
Christopher Mirley State/Commonwealth of Massachausetts County of Massachausetts		
On this \(\frac{1}{2} \frac{1}{2} \) day of \(\frac{1}{2} \) \(\frac{1}{2} \) day of \(\frac{1}{2} \) \(\frac{1}{2} \) before me, the undersigned notary public, personally appeared Christopher Miney,		
personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
(SEAL) Notary Public and leng mon.		
<u> </u>		
My Commission expires (3 / >) / >)		
Inventor's Signature: Jeffrey A. Bickmeier State/Commonwealth of Masker Action County of Masker Action On this day of fellowing 201, before me, the undersigned notary public, personally appeared Jeffrey A. Bickmeier,		
personally known to me, or		
proved to me through satisfactory evidence of identification, which was		
to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
(SEAL) Notary Public And Mark Commission expires 3 / 20 / 30 / 30 / 30 / 30 / 30 / 30 /		

	Inventor's Signature:	La James	
		in D'Ambruoso	
	State/Commonwealth of Massachuse445		
	County of Addlesses		
	On this 17 h day of Musch 2011, before me, the undersigned notary public, personally appeared Ann D'Ambruoso,		
	personally known to me, or		
	proved to me through satisfactory	evidence of identification, which was	
to be the person whose name was signed on the foregoing instrument in my presence, acknowledged that he/she signed the foregoing instrument as his/her free act and deed			
	(SEAL)	Notary Public lades & Level & Same	
Andrea M. Serra Music		Andrea M. Secca, Mascisco (print name)	
		My Commission expires <u>93/3-1/201</u> 7	
	Inventor's Signature: State/Commonwealth of Massalus D County of Maddings	rayak A. Skrylly	
	On this 24% day of February public, personally appeared Frank A. Skri		
	personally known to me, or	·	
	proved to me through satisfactory	evidence of identification, which was	
	to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
	(ŚEĄL)	Notary Public	
		The L. Various (print name)	
		My Commission expires Jo- / 26 / 20/8	
		JEFFREY LEE VAUGHN	
		COMMONWEATH OF MASSACHUSETTS My Commission Expires	

January 28, 2018

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	Inventor's Signature: <u>TW-RAWS</u>		
	Thomas M. Ramseier State/Commonwealth		
	of Massach was 115 County of Middlese 1		
	On this day of March public, personally appeared Thomas M. Rau	20 <u>\\</u> , before me, the undersigned notary mseier,	
	personally known to me, or		
	proved to me through satisfactory evidence of identification, which was		
	to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
	(SEAL)		
and the second		Andrea M. Secra Muscians (print name)	
	My Commission expires O3 / 201 / 201		
	State/Commonwealth of 1850 154 155 County of 1841 564	Sivasubramanian	
	On this day of 201, before me, the undersigned notary public, personally appeared M.S. Sivasubramanian, personally known to me, or proved to me through satisfactory evidence of identification, which was		
	to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.		
	(SEAL)	Notary Public adva to least to the Andrea Mascock (print name)	
		My Commission expires 23/21/2014	

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