

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4762425

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the ASSIGNEE'S ADDRESS previously recorded on Reel 044190 Frame 0682. Assignor(s) hereby confirms the CORRECT ADDRESS IS 5901 E. LOMBARD ST., BALTIMORE, MD 21224.

**CONVEYING PARTY DATA**

Name	Execution Date
HUMAN GENOME SCIENCES, INC.	10/02/2017

**RECEIVING PARTY DATA**

<b>Name:</b>	EMERGENT MANUFACTURING OPERATIONS BALTIMORE LLC
<b>Street Address:</b>	5901 E. LOMBARD ST.
<b>City:</b>	BALTIMORE
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	21224

**PROPERTY NUMBERS Total: 12**

Property Type	Number
Patent Number:	7601351
Patent Number:	7906119
Application Number:	60391162
Application Number:	60406339
Application Number:	60417305
Application Number:	60426360
Application Number:	60434807
Application Number:	60438004
Application Number:	60443858
Application Number:	60443781
Application Number:	60454613
Application Number:	60468651

**CORRESPONDENCE DATA**

Fax Number: (314)667-3633

*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: 314-552-6000

Email: ipdocket@thompsoncoburn.com

**Correspondent Name:** THOMPSON COBURN LLP/WILLIAM A. HOLTZ  
**Address Line 1:** ONE US BANK PLAZA  
**Address Line 4:** ST. LOUIS, MISSOURI 63101

<b>ATTORNEY DOCKET NUMBER:</b>	57964-171353
<b>NAME OF SUBMITTER:</b>	WILLIAM HOLTZ
<b>SIGNATURE:</b>	/William A. Holtz/
<b>DATE SIGNED:</b>	01/03/2018

**Total Attachments: 8**

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<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4699362

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HUMAN GENOME SCIENCES, INC.	10/02/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMERGENT MANUFACTURING OPERATIONS BALTIMORE LLC
<b>Street Address:</b>	400 PROFESSIONAL DRIVE <u>5901 E. Lombard St.</u>
<b>Internal Address:</b>	SUITE-400
<b>City:</b>	GAITHERSBURG <u>Baltimore</u>
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20879 <u>21224</u>
<b>PROPERTY NUMBERS Total: 12</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7601351
Patent Number:	7906119
Application Number:	60391162
Application Number:	60406339
Application Number:	60417305
Application Number:	60426360
Application Number:	60434807
Application Number:	60438004
Application Number:	60443858
Application Number:	60443781
Application Number:	60454613
Application Number:	60468651
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(314)667-3633
<i>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.</i>	
<b>Phone:</b>	314-552-6000
<b>Email:</b>	ipdocket@thompsoncoburn.com
<b>Correspondent Name:</b>	THOMPSON COBURN LLP/WILLIAM A. HOLTZ
<b>Address Line 1:</b>	ONE US BANK PLAZA

PATENT ASSIGNMENT

This Patent Assignment (this "Assignment"), is entered into as of October 2, 2017, by and between Human Genome Sciences, Inc., a Delaware corporation ("Assignor") and Emergent Manufacturing Operations Baltimore LLC, a Delaware limited liability company ("Assignee").

Pursuant to the terms and subject to the conditions of the Asset Purchase Agreement (the "Asset Purchase Agreement"), dated as of July 19, 2017, by and between Human Genome Sciences, Inc., a Delaware corporation, GlaxoSmithKline LLC, a Delaware limited liability company (collectively, "Seller") and Emergent BioSolutions Inc., a Delaware corporation ("Buyer"), at and effective as of the Closing, Seller has agreed to sell, transfer, convey, assign and deliver to Buyer, and Buyer has agreed to purchase, acquire and accept from Seller, all of Seller's and its Affiliates' rights, titles and interests in, to or under the patents set forth on Schedule A hereto, all patent applications (including provisional applications) from which such patents issued (including those listed on Schedule A hereto), and all continuations, continuations in part, substitutions, reissues, renewals, patent term extensions or adjustments, reexaminations, supplemental protection certificates, extensions, registrations and confirmations thereof (the "Assigned Patents").

Assignor is the owner of the Assigned Patents.

In consideration of the mutual covenants, terms and conditions set forth in the Asset Purchase Agreement and herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor and Assignee, intending to be legally bound, hereby agree as follows:

1. Defined Terms; Interpretation. Except as otherwise set forth herein, capitalized terms used in this Assignment shall have the meanings assigned to them in the Asset Purchase Agreement. This Assignment shall be interpreted in accordance with the rules of construction set forth in Section 10.11 of the Asset Purchase Agreement.
2. Conveyance and Acceptance of Assigned Patents. Assignor hereby sells, conveys, assigns, transfers and delivers to Assignee all of Assignor's right, title and interest in, to and under the (a) Assigned Patents, (b) proceeds, benefits, privileges, causes of action, and remedies relating to the Assigned Patents and arising on and after the effective date hereof, (c) rights to bring an action, whether at law or in equity, for past, present or future infringement of the Assigned Patents against any third party (but only if such action is initiated by Assignee after the Closing), and (d) rights to recover damages, profits and injunctive relief for past, present or future infringement of the Assigned Patents (but only if the action in respect of such recovery is initiated by Assignee after the Closing), and Assignee hereby purchases and acquires such assets and accepts such sale, conveyance, assignment and transfer.
3. Recordation. Assignee may record this Assignment with the United States Patent and Trademark Office. All costs associated with any such recordation shall be paid by Assignee.
4. Asset Purchase Agreement. Nothing in this Assignment, express or implied, is intended to or shall be construed to modify, expand, supersede or limit in any way the terms, conditions, obligations, rights and remedies set forth in the Asset Purchase Agreement. To the extent that any provision of this Assignment conflicts or is inconsistent with the terms of the Asset Purchase Agreement, the Asset Purchase Agreement shall control and govern.
5. Effective Time. This Assignment shall be effective as of the Closing.

6. Amendments. This Assignment may not be modified, amended, altered or supplemented except upon the execution and delivery of a written agreement executed by all parties hereto.

7. Governing Law. Construction and interpretation of this Assignment shall be in accordance with the Laws of the State of New York without regard to conflicts of laws principles that might otherwise refer construction or interpretation of this Assignment to the substantive law of another jurisdiction.

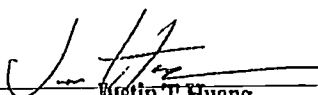
8. Execution of Assignment; Counterparts. This Assignment may be executed in any number of counterparts, each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument. The exchange of copies of this Assignment or amendments thereto and of executed signature pages by facsimile transmission or by email transmission in portable document format (PDF), or similar format, shall constitute effective execution and delivery of such instrument(s) as to the parties hereto and may be used in lieu of the original Assignment or amendment for all purposes. Signatures of the parties hereto transmitted by facsimile or by email in portable document format (PDF), or similar format, shall be deemed to be their original signatures for all purposes.

**[The remainder of this page left intentionally blank; signature page follows.]**

IN WITNESS WHEREOF, the parties hereto have caused this Assignment to be executed as of the date first written above.

**ASSIGNOR:**

HUMAN GENOME SCIENCES, INC.

By:   
Name: Justin T. Huang  
Its: Assistant-Secretary

**ASSIGNEE:**

EMERGENT MANUFACTURING  
OPERATIONS BALTIMORE LLC

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

*[Signature Page to Patent Assignment]*

IN WITNESS WHEREOF, the parties hereto have caused this Assignment to be executed as of the date first written above.


**ASSIGNOR:**

HUMAN GENOME SCIENCES, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

**ASSIGNEE:**

EMERGENT MANUFACTURING  
OPERATIONS BALTIMORE LLC

By:   
Name: Sean Kirk  
Its: SVP, Executive Manager

*[Signature Page to Patent Assignment]*

**Schedule A**  
**Assigned Patents**

<b>Case Reference</b>	<b>Country</b>	<b>Application No.</b>	<b>Grant No.</b>	<b>Date Granted</b>
7,601,351	United States	10/602,727	7,601,351	10/13/2009
7,906,119	United States	12/421,139	7,906,119	03/15/2011

Provisional application No. 60/391,162, filed on Jun. 26, 2002

Provisional application No. 60/406,339, filed on Aug. 28, 2002

Provisional application No. 60/417,305, filed on Oct. 10, 2002

Provisional application No. 60/426,360, filed on Nov. 15, 2002

Provisional application No. 60/434,807, filed on Dec. 20, 2002

Provisional application No. 60/438,004, filed on Jan. 6, 2003

Provisional application No. 60/443,858, filed on Jan. 31, 2003

Provisional application No. 60/443,781, filed on Jan. 31, 2003

Provisional application No. 60/454,613, filed on Mar. 17, 2003

Provisional application No. 60/468,651, filed on May 8, 2003