

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

EPAS ID: PAT5493898

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAVID M. KRISKY	04/05/2017
JAMES B. WECHUCK	04/05/2017
JAMES R. GOSS	04/18/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	PERIPHAGEN, INC.
<b>Street Address:</b>	2100 WHARTON STREET
<b>Internal Address:</b>	SUITE 701
<b>City:</b>	PITTSBURGH
<b>State/Country:</b>	PENNSYLVANIA
<b>Postal Code:</b>	15203
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16088393
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)502-5002
<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>	617-248-5000
<b>Email:</b>	PatentDocket@choate.com
<b>Correspondent Name:</b>	CHOATE HALL & STEWART LLP-PATENT DOCKET
<b>Address Line 1:</b>	TWO INTERNATIONAL PLACE
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02110
<b>ATTORNEY DOCKET NUMBER:</b>	2012073-0008
<b>NAME OF SUBMITTER:</b>	ROBERT N. SAHR, PHD, JD
<b>SIGNATURE:</b>	/Robert N. Sahr/
<b>DATE SIGNED:</b>	04/25/2019
<b>Total Attachments: 8</b>	
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**COMBINED JOINT ASSIGNMENT & DECLARATION**

**A. ASSIGNMENT**

WHEREAS, each of the below-named inventors whose name and residence is set forth in the following Table 1:

Inventor Name	City, State
1. David M. Krisky	Pittsburgh, Pennsylvania
2. James B. Wechuck	Pittsburgh, Pennsylvania
3. James R. Goss	Pittsburgh, Pennsylvania

Table 1

hereby declares and agrees, on behalf of himself/herself and all of his/her successors and assigns that each is aware of the patent application(s) entitled:

**HIGH-TRANSDUCING HSV VECTORS; and**

prepared for filing in the United States Patent and Trademark Office; or

identified by United States Application Serial No. \_\_\_\_\_  
filed in the United States Patent and Trademark Office on; \_\_\_\_\_; and

identified by International Patent Application No. PCT/US17/24092  
filed on March 24, 2017; and

and is also aware of the following priority applications:

Serial No.	Filed
62/313,391	March 25, 2016

WHEREAS, PeriphaGen, Inc. (hereinafter "ASSIGNEE"), having a usual place of business at 2100 Wharton Street, Suite 701, Pittsburgh, Pennsylvania 15203, desires to acquire or confirm an interest therein;

NOW, THEREFORE, to all whom it may concern be it known that, in consideration of agreements previously and duly entered into between the parties, and/or for other good and valuable consideration, the receipt of which is hereby acknowledged, each of us has sold, assigned, and transferred and/or do hereby sell, assign, and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title, and interest in and throughout the United States of America, its territories and all foreign countries, in and to any and all inventions described in the patent application, and/or any priority applications noted above, including any right of priority thereto; and

hereby confirm that my sale, assignment and transfer is and was effective at least as of the filing date of the patent application and/or priority application. Our sale, assignment and transfer applies to the above-referenced patent application, and to any application that is based in whole or in part on the patent application, including any divisional, continuing, substitute, renewal, reissue, reexamination and other applications, for example that claim priority to the patent application. Also, this sale, assignment and transfer pertains to any and all other rights arising under or pursuant to any and all international agreements, treaties, or laws relating to the protection of industrial property, including all rights of priority under the International Convention for the Protection of Industrial Property, and in and to any such patent(s) as may issue thereon including any and all original and reissued patents which have been or shall be issued in the United States and foreign countries; said inventions, applications, and patent(s) to be held and enjoyed by ASSIGNEE for its own use and for its successors, assigns and legal representatives, to the full end of the term for which said patent(s) may be granted as fully and entirely as the same would have been held by each of us had this sale, assignment and transfer not been made;

AND, each of us hereby acknowledges that this Assignment, being of our entire right, title, and interest in and to the inventions, carries with it the right in ASSIGNEE, by attorneys and agents of ASSIGNEE selection, to apply for and receive any and all patent(s) for said inventions in its own name;

AND, each of us hereby further agrees 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 patent(s) to ASSIGNEE, its successors, assignees, and legal representatives, but at its expense and charges, including the execution of application for patents in foreign countries, the execution of substitution, reissue, divisional or continuation applications, and the giving of testimony, preliminary statements, or other statements in any interference or other proceeding in which the inventions or any applications or patents directed to the inventions may be involved by communicating to the ASSIGNEE all facts we know relating to the inventions and their history, and generally by doing everything possible which ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for the inventions and for vesting title in the inventions and all applications for patent and all patents on the inventions in ASSIGNEE;

AND, each of us further hereby authorizes ASSIGNEE or its attorneys or agents to insert the correct serial number(s) and/or filing date(s) into this assignment document, if appropriate;

AND, each of us hereby appoints ASSIGNEE as our common agent for purposes of prosecuting international patent applications and any national patent applications for which such common agency is recognized;

AND, each of us hereby requests the Commissioner for Patents of the United States Patent and Trademark Office to issue any and all patent(s) as shall be granted upon

said application or applications based thereon to ASSIGNEE, its successors, assigns, and legal representatives;

AND, each of us covenants with said ASSIGNEE that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

**B. DECLARATION (37 CFR 1.63)**

As below named inventors, we hereby declare that:

This declaration is directed to the patent application entitled:

**HIGH-TRANSDUCING HSV VECTORS; and**

attached hereto or prepared for filing in the United States Patent and Trademark Office; or

identified by United States Application Serial No. \_\_\_\_\_  
filed in the United States Patent and Trademark Office on \_\_\_\_\_; or

identified by International Patent Application No. PCT/US17/24092  
filed on March 24, 2017.

The above-identified application was made or authorized to be made by us.

We believe that we are the original joint inventors of a claimed invention in the application.

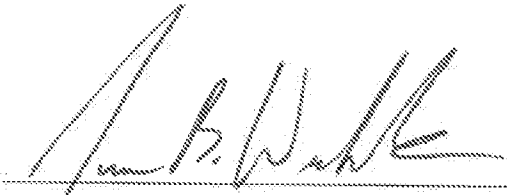
We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

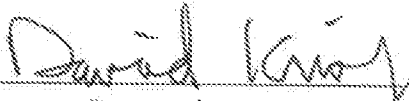
We have reviewed and understand the contents of the application, including the claims and are aware of the duty to disclose to the United States Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR 1.56.


Inventor Signature: David M. Krisky Date: 4/5/2007  
Print Inventor Name: David M. Krisky

Witness Signature: James B. Woodruff  
Print Witness Name: James B. Woodruff

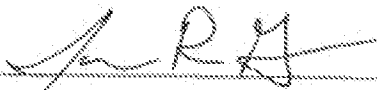
Witness Signature: Sarah Coghlan  
Print Witness Name: Sarah Coghlan

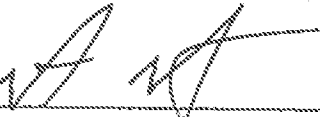
Inventor Signature:  Date: 05 APR 2017  
Print Inventor Name: James B. Wechuck

Witness Signature:   
Print Witness Name: David Kristy

Witness Signature:   
Print Witness Name: Sarah Coghlan



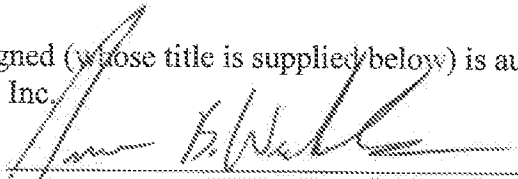
Inventor Signature:  Date: 18 April 2013  
Print Inventor Name: James R. Goss

Witness Signature:   
Print Witness Name: Daniel Ranaykossaini

Witness Signature: A. Nagaraju  
Print Witness Name: NAGARAJU ANLEODY

The undersigned (whose title is supplied below) is authorized to act on behalf of  
PeriphaGen, Inc.

Signature:



Date: 05 APR 2017

Name (printed):

James B. Wechuck

Title (printed):

Vice President Science Operations