

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GRAHAM F. HATFULL	05/16/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	UNIVERSITY OF PITTSBURGH - OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION
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<b>State/Country:</b>	PENNSYLVANIA
<b>Postal Code:</b>	15260
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
PCT Number:	US2012061059
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<b>ATTORNEY DOCKET NUMBER:</b>	96700-1899
<b>NAME OF SUBMITTER:</b>	BRIAN J. AMOS
<b>SIGNATURE:</b>	/Brian J. Amos/
<b>DATE SIGNED:</b>	05/19/2014
<b>Total Attachments: 3</b>	
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source=Assignment#page3.tif	

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of good and valuable consideration, the receipt of which is hereby acknowledged,

ASSIGNOR:

Full Name of Inventor: Graham F. Hatfull  
Residence: 1529 Jenkins Drive, Pittsburgh, Pennsylvania 15241  
Citizenship: US

hereby sells, assigns, and transfers to ASSIGNEE:

University of Pittsburgh - Of the Commonwealth System of Higher Education  
200 Gardner Steel Conference Center  
Thackeray & O'Hara Streets  
Pittsburgh, Pennsylvania 15260

and the successors, assigns, and legal representatives of the ASSIGNEE, the entire right, title, and interest for the United States and its territorial possessions, and in all foreign countries and regions, including all rights to claim priority, in and to the invention entitled:

**RECOMBINANT MYCOBACTERIOPHAGES FOR DELIVERY  
OF NUCLEIC ACIDS OF INTEREST INTO MYCOBACTERIA**

that was invented by ASSIGNOR, and which is found in PCT International Patent Application No. PCT/US2012/61059, filed October 19, 2012, and any legal equivalent thereof in a foreign country or region, including the right to claim priority, including any and all improvements disclosed therein, and in and to all Letters Patent to be obtained for said invention by the above application, or any continuation, divisional, renewal, or substitute thereof, and, as to Letters Patent, any reissue or re-examination thereof.

ASSIGNOR hereby covenants that no assignment, sale, agreement, or encumbrance has been, or will be, made or entered into which would conflict with this Assignment.

ASSIGNOR authorizes ASSIGNEE to make applications for, and to receive, Letters Patent for said invention in any of said countries or regions, in ASSIGNEE's name, or in ASSIGNOR'S name, at ASSIGNEE's election.

ASSIGNOR covenants and agrees to execute or procure any further necessary assurance of the title to said invention, and any Letters Patent which may issue therefor, and to, at any time, upon the request and at the expense of ASSIGNEE, deliver any testimony in any interference, litigation, or proceeding related thereto, and to execute all papers that may be necessary or desirable to perfect the title to said invention, or any Letters Patent which may be granted therefor in ASSIGNEE, its successors, assigns, or other legal representatives, and to, at any time, upon the request and at the expense of ASSIGNEE, execute any continuation, continuation-in-part, divisional, renewal, or substitute thereof, and, as to Letters Patent, any reissue or re-examination thereof, or any other additional applications for Letters Patent for said invention or any part thereof, all of which applications and any Letters Patent issuing thereon are hereby assigned to ASSIGNEE, will make all rightful oaths or declarations, and do all lawful acts requisite for procuring the same therein, without further compensation, but at the expense of ASSIGNEE, its successors, assigns, or other legal representatives.

ASSIGNOR authorizes and requests the Commissioner of Patents to issue any and all Letters Patent of the United States for said invention, resulting from the aforesaid application, to

said University of Pittsburgh - Of the Commonwealth System of Higher Education, as the  
ASSIGNEE.

WITNESS my hand and seal on:

  
\_\_\_\_\_  
Graham F. Hatfull

5-16-2014  
\_\_\_\_\_  
Date