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	vcying party(ie					of receiving party(ies):
1) Drew M. 1	• • • • •	4/30/04	•			
2) Linzhao (		4/30/04	ŧ		Name: The John	as Hopkins University
3) Yan Cui	2	5/16/04	4		Internal Address:	······································
4) Curt I. Ci	vin	4/30/04	1			
5) Katherine	; Whartenby	4/30/04	\$			
Additional name(	s) of conveying	v partv(ies	s) attached? 🔲 Y	Yes 🖾 No	Street Address: 34	400 N. Charles Street
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Assignt	-		Merger		City: Baltimore	State: <u>MD</u> Zip: <u>212</u>
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Form PTO-1595 RECORDATION FOR PATENT	
OMB No. 0651-0011 (rsp. 4/94)	
To the Honorable Commissioner of Patents and Trademarky: Please record the attact         1. Name of conveying party(les):         Drew M. Pardoll         4/30/04         Linzhao Cheng         4/30/04         Yan Cui         6/16/04         Curt I. Civin         4/30/04         Katherine Whartenby         4/30/04         Additional name(s) of conveying party(ies) attached?         Yes         Nature of conveyance:         Security Agreement         Other         Other	hed original documents or copy thereof.         2. Name and address of receiving perty(ies):         Name: The John Hopkins University         Internal Address:         Strest Address:         City: Baltimore         Strest address: 3400 N. Charles Strest         City: Baltimore         Strest Address: 3400 N. Charles Strest         Name: The solution of
<ol> <li>Application number(s) or patent number(s): If this document is being filed together with a new application, the file A. Patent Application No.(s) 10/471,559</li> </ol>	ing date of the application is: B. Patent No.(s):
Name and address of party to whom correspondence concerning document should be mailed: Name: <u>Oillian M. Penton</u> Internal Address: <u>Foley Hoaz LLP</u> Patent Department Street Address: <u>155 Seaport Blvd</u> Clity: <u>Boston</u> State: <u>MA</u> ZIP <u>02210</u>	<ul> <li>6. Total number of spplications and patents involved (1)</li> <li>7. Total Fac (37 CFR 3.14)</li></ul>
DO NOT LISE	THIS SPACE
9. Statement and signature. To the best of my knowledge and belief, the foregoing information is document.	true and correct and any attached copy is a true copy of the original
Gillian M. Fenton Reg. No. 36,508	
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## ASSIGNMENT

WHEREAS, we, Drew M. Pardoll, Linzhao Cheng, Yan Cui, Curt I. Civin and Katherine Whartenby, and have developed certain inventions described in a US patent application serial number 10/471,559 entitled MODULATION OF SYSTEMIC IMMUNE RESPONSES BY TRANSPLANTATION OF HEMATOPOIETIC STEM CELLS TRANSDUCED WITH GENES ENCODING ANTIGENS AND ANTIGEN PRESENTING CELL REGULATORY MOLECULES, filed on September 12, 2003, having full right to convey our entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, THE JOHNS HOPKINS UNIVERSITY, ("Assignee"), of 3400 N. Charles Street, Baltimore, MD, 21218, a corporation of the State of Maryland, is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the undersigned, the undersigned do hereby sell, assign, transfer and set over unto said Assignee, its successors and assigns, their entire right, title and interest throughout the world in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications and claim priority under the provisions of any international convention or treaty; also the entire right, title and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize and request the issuing authority to issue any and all patents on said application or applications to said Assignee or its successors and assigns.

The undersigned further agree, without any further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

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PATENT REEL: 014902 FRAME: 0538



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Kathenne Whattenby

State of Maryland County of BA Himberl



<u>4/30/04</u> (Date) Ame Berch <u>2/1/07</u> Notary Public

My commission expires\_\_\_\_

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-3-

PATENT REEL: 014902 FRAME: 0540

## ASSIGNMENT

WHEREAS, we, Drew M. Pardoll, Linzhao Cheng, Yan Cui, Curt I. Civin and Katherine Whartenby, and have developed certain inventions described in a US patent application serial number 10/471,559 entitled MODULATION OF SYSTEMIC IMMUNE RESPONSES BY TRANSPLANTATION OF HEMATOPOIETIC STEM CELLS TRANSDUCED WITH GENES ENCODING ANTIGENS AND ANTIGEN PRESENTING CELL REGULATORY MOLECULES, filed on September 12, 2003, having full right to convey our entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, THE JOHNS HOPKINS UNIVERSITY, ("Assignee"), of 3400 N. Charles Street, Baltimore, MD, 21218, a corporation of the State of Maryland, is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the undersigned, the undersigned do hereby sell, assign, transfer and set over unto said Assignee, its successors and assigns, their entire right, title and interest throughout the world in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications and claim priority under the provisions of any international convention or treaty; also the entire right, title and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize and request the issuing authority to issue any and all patents on said application or applications to said Assignee or its successors and assigns.

The undersigned further agree, without any further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

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IN TESTIMONY WHEREOF, the undersigned have hereunto set their hands and seals on the date after their signatures.

	، والذكر المحمد من التربيب من عن المربع عامل من الأليب والتربيب عن المحمد الأكريب والتربيب المربع المربع المربع
Drew M. Pardell	(Date)
State of Maryland ) County of )	
	Notary Public
	My commission expires
Linzhao Cheng	(Date)
State of Maryland ) County of )	
	Notary Public
1/	My commission expires
Yan Cui	(Date)
State of Maryland Low: sime) County of Orleans ) Par.sh Prleans yc	Latterie Mustar
	Notary Public My commission expires for life
Curt I. Civin	06/16/04 (Date)
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	Notary Public
	My commission expires
-DC/86450.1	-2- PATENT
RECORDED: 07/20/2004	REEL: 014902 FRAME:

**RECORDED: 09/06/2005**