ASSIGNMENT RECORDATION FORM COVER SHEET Patents Only		
To the Honorable Commissioner of Patents and Trademarks:	Date: November 8, 2004 Attorney Docket No. 5470-147IP	
Please record the attached original documents or copy thereof.	/ Montey Booket No. 0470-1471	
Name of conveying party(ies):	Name and address of receiving party(ies):	
1) Robert E. Johnston 101 Marin Place Chapel Hill, NC 27516	University of North Carolina at Chapel Hill 308 Bynum Hall Chapel Hill, NC	
2) Nancy L. Davis 132 New Castle Drive Chapel Hill, NC 27514-7927	Additional name(s) & address(es) attached? Yes X_No	
 Dennis A. Simpson 911 New Hope Church Road Chapel Hill, NC 27514 		
4) Mark T. Heise 113 Weatherstone Drive, Apt. E Chapel Hill, NC 27514		
Additional name(s) of conveying party(ies) attached? _Yes_X_No		
Nature of conveyance:		
X Assignment		
Merger Security Agreement Change of Name		
Other Executed on: 1) <u>February 7, 2002;</u> 2) <u>February 7, 2002;</u> 3) <u>February 8, 2002;</u> 4) <u>February 8, 2002</u>		
4. Application Serial No. 09/367,764		
If this document is being filed together with a new application, this:	e execution date of the application	
Additional numbers attached? Yes _X_ No	1	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved 1	
Karen A. Magri	7. Total fee (37 CFR 3.41) \$40.00 Enclosed X Authorized to be charged to deposit account	
Myers Bigel Sibley & Sajovec P. O. Box 37428 Raleigh NC 27627	A Authorized to be disalged to deposit addouble	
*	8. Deposit account number: 50-0220	
9. Statement and signature To the best of my knowledge and belief, the foregoing information the original document. Karen A. Magri Registration No. 41,965	on is true and correct and any attached copy is a true copy of II 8 0 4 Date:	
Certificate of Transmission under 37 CFR 1.8 I hereby certify that this correspondence is being facsimile transmit Patent and Trademark Office to (703) 306-5995 on November 8, 2 Sarah Brunmeier Total number of pages including cover sheet, attachments and doc	<u>004.</u>	

Attorney Docket No. 5470-147IP

ASSIGNMENT

THIS ASSIGNMENT, made by us, ROBERT E. JOHNSTON, a citizen of the United States of America, residing at 101 Marin Place, Chapel Hill, North Carolina; NANCY L. DAVIS, a citizen of the United States of America, residing at 132 New Castle Drive, Chapel Hill, North Carolina; DENNIS A. SIMPSON, a citizen of the United States of America, residing at 911 New Hope Church Road, Chapel Hill, North Carolina; MARK T. HEISE, a citizen of the United States of America, residing at 113 Weatherstone Drive, Apt. E, Chapel Hill, North Carolina

WITNESSETH: That.

WHEREAS, we are joint inventors of certain new and useful improvements in SYSTEM FOR THE IN VIVO DELIVERY AND EXPRESSION OF HETEROLOGOUS GENES IN THE BONE MARROW for which an application for United States Letters Patent has been filed in the United States Patent and Trademark Office as Application No. 09/09/367,764, filed November 12, 1999; and

WHEREAS, The University of North Carolina at Chapel Hill, an educational institution having a principal place of business at 308 Bynum Hall, Campus Box 4105; County of Orange, State of North Carolina, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as

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fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _7 day of

FEBRUARY 2007-	-5. (SEAL)
Robert E.	
STATE OF NORTH CAROLINA))
COUNTY OF ORANGE)
Before me personally appear	ed Robert E. Johnston to me known to be the person
	oregoing instrument, and he acknowledged to me that he
executed the same for the purposes t	herein stated, this 7^{16} day of $F_{EBRUARY}$,
20 <u>03</u>	Elanie M Smith
SEAL	Notary Public
SEAD .	
My Commission Expires: Aug.	<u> 12, 2005 </u>
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IN WITNESS WHEREOF, we have hereunto set our hands and seals on this 74.		
day of February, 2001.		
Nancy L. Davis (SEAL)		
Nancy L. Davis		
STATE OF NORTH CAROLINA)) ss:		
COUNTY OF ORANGE)		
Before me personally appeared Nancy L. Davis to me known to be the person		
described in and who executed the foregoing instrument, and she acknowledged to me that		
she executed the same for the purposes therein stated, this 7th day of		
FEERUARY, 2002. Ellen M Smith Notary Public		
11011113 1 1011111		
SEAL		
My Commission Expires:		
IN WITNESS WHEREOF, we have hereunto set our hands and scals on this day of, 2002		
Dennis A. Simpson		
Dennis A. Simpson STATE OF NORTH CAROLINA) ss:		
Dennis A. Simpson STATE OF NORTH CAROLINA) ss: COUNTY OF ORANGE)		
Dennis A. Simpson STATE OF NORTH CAROLINA)) ss: COUNTY OF ORANGE) Before me personally appeared Dennis A. Simpson to me known to be the person		
Dennis A. Simpson STATE OF NORTH CAROLINA) ss: COUNTY OF ORANGE Before me personally appeared Dennis A. Simpson to me known to be the person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purposes therein stated, this 2002.		
Dennis A. Simpson STATE OF NORTH CAROLINA) ss: COUNTY OF ORANGE Before me personally appeared Dennis A. Simpson to me known to be the person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purposes therein stated, this 2002.		
Dennis A. Simpson STATE OF NORTH CAROLINA) ss: COUNTY OF ORANGE Before me personally appeared Dennis A. Simpson to me known to be the person described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same for the purposes therein stated, this day of FERRARY.		

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IN WITNESS WHEREOF, v	we have hereunto set our hands and seals on this #TL
day of <u>February</u> , 20 <u>02</u> .	2-00-
	CT Ken (SEAL)
Mark T. H	eise
STATE OF NORTH CAROLINA)) ss:
COUNTY OF ORANGE)
Before me personally appear	ed Mark T. Heise to me known to be the person described
	nstrument, and he acknowledged to me that he executed
the same for the purposes therein sta	ated, this, day of, 20
	- Elaine M Smith
	Notary Public
SEAL	
My Commission Evnires: Aug	22 2005

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