	U.S. DEPARTMENT OF U.S. Patent and Tra	
(Rev. 10/02) { OMB No. 0651-0027 (exp. 6/30/2005)	O.S. Patent and Tra	uema
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Name of conveying party(ies):     REDDY, K. Raja	Name and address of receiving party(ies)     Name: _Metabasis Therapeutics, Inc.	
ERION, Mark D.	Name: Metabasis Therapeutics, Inc.  Internal Address:	
MATELICH, Michael C.	Internal Address:	<del></del> -
KOPCHO, Joseph J.  Additional name(s) of conveying party(les) attached? Yes V	0	
3. Nature of conveyance:		C
Assignment Merger		_ <u></u>
Security Agreement Change of Name	Street Address: 9390 Towne Centre Drive	<del></del>
	Building 300	•
Other		
05/07/03	City: San Diego State: CA Zip: 9	2121
Execution Date:	Additional name(s) & address(es) attached? Y	es [
A. Patent Application No.(s) 10/436,922  Additional numbers		
	B. Patent No.(s)	
Additional numbers  5. Name and address of party to whom correspondence	B. Patent No.(s)  s attached? Yes No  e 6. Total number of applications and patents in	nvolv
5. Name and address of party to whom correspondent concerning document should be mailed:	B. Patent No.(s)	nvolv
Additional numbers  5. Name and address of party to whom correspondence concerning document should be mailed:  Name:Diana L. Bush, Ph.D., Esq.	B. Patent No.(s)  attached? Yes No  e 6. Total number of applications and patents in	nvolv
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5. Name and address of party to whom correspondence concerning document should be mailed: Name:Diana L. Bush, Ph.D., Esq.  Internal Address: Paul, Hastings, Janofsky & Walker LLP  Street Address: Street Address: City: San DiegoState:CA_Zip:92130	B. Patent No.(s)  stattached? Yes No  e 6. Total number of applications and patents in  7. Total fee (37 CFR 3.41)	nvolv
5. Name and address of party to whom correspondence concerning document should be mailed:  Name:Diana L. Bush, Ph.D., Esq.  Internal Address:  Paul, Hastings, Janofsky & Walker LLP  Street Address:  Street Address:  City:_San DiegoState:_CA_Zip:92130	B. Patent No.(s)  attached? Yes No  e 6. Total number of applications and patents in  7. Total fee (37 CFR 3.41)	nvolv
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5. Name and address of party to whom correspondence concerning document should be mailed: Name:Diana L. Bush, Ph.D., Esq.  Internal Address: Paul, Hastings, Janofsky & Walker LLP  Street Address: Street Address: City: _San Diego State: _CA _Zip: _92130  DO NOT U  9. Signature.  Diana L. Bush, Esq., Ph.D., Reg. No. 51,109	B. Patent No.(s)  attached? Yes No  e 6. Total number of applications and patents in  7. Total fee (37 CFR 3.41)	
5. Name and address of party to whom correspondent concerning document should be mailed:  Name:Diana L. Bush, Ph.D., Esq.  Internal Address: Paul, Hastings, Janofsky & Walker LLP  Street Address: Street Address:  City:_San Diego	B. Patent No.(s)  statached? Yes No  e 6. Total number of applications and patents in  7. Total fee (37 CFR 3.41)	

PATENT REEL: 015041 FRAME: 0001

## **ASSIGNMENT**

For valuable consideration, we, K. Raja Reddy of San Diego, CA, and a citizen of the United States of America; Mark D. Erion of Del Mar, CA, and a citizen of the United States of America; Michael C. Matelich of San Diego, CA and a citizen of the United States of America; and Joseph J. Kopcho of San Diego, CA and a citizen of the United States of America hereinafter referred to as "Assignors") hereby assign to METABASIS THERAPEUTICS, INC., a corporation organized and existing under and by the virtue of the laws of the State of Delaware, having a place of business located at 9390 Towne Centre Drive, Bldg. 300, San Diego, CA 92121, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the invention and improvements which are the subject of an application for United States Provisional Application, U.S. Serial No. 60/380,545, filed May 13, 2002, entitled "NOVEL PHOSPHONIC ACID BASED PRODRUGS OF PMEA AND ITS ANALOGUES," and related applications and patents, this assignment including said application, any and all United States and foreign patents granted for any of said inventions or improvements, including all divisions, continuations, reissues, continuations-in-part and extensions thereof, and the right to claim priority based on the filing date of said application and based on the filing date of any provisional application of which said application claims the benefit under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our names or in its own name for patents and like rights of exclusion and for inventor's certificates for said inventions and improvements; and we agree for ourselves and our heirs, legal representatives and assigns, without further compensation, upon request to perform such lawful acts, to promptly provide Assignee with all pertinent facts and documents relating to said invention or application as may be known and accessible to us, to testify in any interference or litigation related to said invention or application and to sign such further applications, assignments,

Page 1 of 5

SAN/65212.1

PATENT REEL: 015041 FRAME: 0002 Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

The Assignors hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this Agreement.

personally known to me - OR - proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) (s) and subscribed to the within instrument and acknowledged to me that he she/thely executed the same in his/her/thely authorized capacity(ins), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public in and for said County and State

WITNESS my hand at,San	Diego, CA
this 6 day of May	
	Q40.L
	MARK D. ERION
STATE OFCalifornia	
COUNTY OF	) ss )
	Dublia.
On May 6, 2003 before	me, Elisa Lynne Weston, Notary, personally appeared
	D. ERION
be the person(x) whose name(x) is all that he she/they executed the same in	OR - proved to me on the basis of satisfactory evidence to subscribed to the within instrument and acknowledged to me his/her/their authorized capacity(les), and that by his/her/their son(x), or the entity upon behalf of which the person(x) acted,
WITNESS my hand and offic	ial seal.
ELISA LYNNE WESTON Commission # 124415 Notary Public - Californ San Diego County	A Total South Little Street Council Council Council Charles

WITNESS my hand at _	San Diego, CA			
this 7 day of May				, 2003.
				•
		Michael (	Malket ATELICH	3
STATE OF <u>California</u>	)			
	) ss			
COUNTY OF San Diego	)			
	pefore me, Elisa Lyr		Public, personally	appeared
- N	<u> MICHAEL C. MATE</u>	LICH		
personally known to be the person(3) whose name(3) that newske/fixey executed the sa signature(3) on the instrument t executed the instrument.	(is) and subscribed to the in his her/their a	the within instrum uthorized capacity	nent and acknowl (i🔌), and that by	ledged to me his/her/their
WITNESS my hand and	d official seal.			

ELISA LYNNE WESTON
Commission # 1244152
Natary Public - California
San Diego County
My Comm. Expires Dec 25, 2003

Notary Public in and for said County and State

WITNESS my hand at _	San Diego, CA		
his 7 day of May			, 2003.
		Ma	:
		JOSEPH J. KOPCHO	
STATE OF <u>California</u>	) ss		
COUNTY OF San Diego	)		
On May 7, 2003 }	oefore me <u>, Elisa Ly</u> OSEPH J. K <u>OPC</u> HC	ynne Weston, Notary, per )	sonally appeared
personally known to be the person(x) whose name(x) that the size/they executed the size signature(x) on the instrument to executed the instrument.	) (5% and subscribed to ame in his/her/their a	authorized capacity(iæs), and	acknowledged to me I that by his(hAr/their
WITNESS my hand and	d official seal.		
ELISA LYNNE W Commission # Notary Public - C San Diego Co My Comm. Expires D	1244152 California & , ounty F	Notary Public in and for said Co	ounty and State

SAN/65212.1

RECORDED: 03/08/2004

PATENT REEL: 015041 FRAME: 0006