PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:			NEW ASSIGNMENT				
NATURE OF CONVEYANCE:			ASSIGNMENT				
CONVEYING PARTY	CONVEYING PARTY DATA						
		Na		ecution Date			
Mark D. ERION			03/28/				
K. Raja REDDY			03/28/				
Serge H. BOYER			03/28/	2001			
RECEIVING PARTY DATA							
Name:	Metabasis Therapeutics, Inc.						
Street Address:	11085 North	11085 North Torrey Pines Road					
Internal Address:	Suite 300						
City:	La Jolla						
State/Country:	CALIFORNIA	CALIFORNIA					
Postal Code:	92037						
PROPERTY NUMBERS Total: 1 Property Type Number							
Property Type			Number				
Application Number: 12889		1288988	89				
CORRESPONDENCE DATA							
Fax Number:	(202)94	2-5000					
			en the fax attempt is unsuccessful.	Ğ			
Phone: 2029425000							
Email:							
Correspondent Name: Arnold & Porter LLP							
Address Line 1: 555 Twelfth Street, NW Address Line 2: Attn: IP Docketing							
Address Line 2. Autr. IP Docketing Address Line 4: Washington, DISTRICT OF COLUMBIA 20004							
ATTORNEY DOCKET NUMBER:			23032.173				
NAME OF SUBMITTER:			Milan M. Vinnola				
Total Attachments: 4 PATENT							

ASSIGNMENT

For valuable consideration, we, MARK D. ERION of Del Mar, California and a citizen of the United States of America; K. RAJA REDDY of San Diego, California and a citizen of the United States of America; and SERGE H. BOYER of San Diego, California and a citizen of France (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 and having a place of business at 9390 Towne Centre Drive, San Diego, California 92121, USA, 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 Patent filed March 3, 2000, U.S. Serial No. 09/518,501 entitled NOVEL PHOSPHORUS-CONTAINING PRODRUGS, 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, 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.

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PATENT REEL: 025040 FRAME: 0282

WITNESS my hand at	San Diego. CA	•••••••••••••••••••••••••••••••••••••••
this _28 day of Harch		, 2001.
	lock & h	•
	MARK D. ERION	
STATE OF California	· · · · · · · · · · · · · · · · · · ·	• •
COUNTY OF San Diego) SS)	
March 28, 2001 Onbef	Elisa Lynne Weston, Notary Pub.	
	RK D. ERION	

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WITNESS my hand and official seal.



Notary Public in and for said County and State

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WITNESS my hand at	San Diego, CA	
28 March this day of		_, 2001.
	KRANDE	
a and a second and a	K. RAJA REDDY	
STATE OF California)	
COUNTY OF San Diego) ==	
On March 28, 2001 befo	Elisa Lynne Weston, Notary Public, re me, personally appear	
K. R	AJA REDDY	ed

personally known to me -OR - - proved to me on the busis of satisfactory evidence-to 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 day of March	·	, 200 1.
	SERCE II STA	
STATE OF	SERGE H. HOYER	
San Diego) ss)	
March 28, 2001 Onbef	The second se	blic
SET	GE H. BOYER	sonally appeared

Experionally known to me -OR - proved to me on the basis of setisfastory evidence to be the person(x) whose name(x) (x) and the subscribed to the within instrument and acknowledged to me that Resh/they executed the same in the heritation of the entity upon behalf of which the person(x) acted, signature(x) on the instrument the person(x), or the entity upon behalf of which the person(x) acted, executed the instrument.

WIINESS my hand and official seal.



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Notary Public in and for said County and State

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RECORDED: 09/24/2010