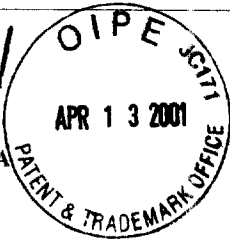


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04-20-2001



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FORM PTO-1619A
Expires 06/30/99
OMB 0651-0027

U.S. Department of Commerce
Patent and Trademark Office
PATENT 030727.0013.CIPI

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Submission Type

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Conveyance Type

Assignment Security Agreement

License Change of Name

Merger Other

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Departmental File Secret File

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Execution Date
Month Day Year

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If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

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Correspondent Name and Address **Area Code and Telephone Number** (858) 720-2500

Name Jessica Wolff, Esq.

Address (line 1) Brobeck, Phleger & Harrison LLP

Address (line 2) 12390 El Camino Real

Address (line 3) San Diego, California 92130-2081

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments. # 4

Application Number(s) or Patent Number(s) Mark if additional numbers attached.
 Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)			Patent Number(s)		
09/518,501					

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)
 Enter PCT application number only if a U.S. Application Number has not been assigned

PCT		PCT		PCT	
PCT		PCT		PCT	

Number of Properties Enter the total number of properties involved. # 1

Fee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment: Enclosed Deposit Account

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 Deposit Account Number: # 50-1273

Authorization to charge additional fees: Yes No

Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Richard H. Pagliery (44,276) *Richard Pagliery* April 10, 2001
 Name of Person Signing Signature Date



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RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT 030727.0013.CIP1

Conveying Party(ies)

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Execution Date
Month Day Year

Name (line 1) **Serge H. Boyer**

3/28/01

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

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If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 1)

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Address (line 1)

Address (line 2)

Address (line 3)
City State/Country Zip Code

Name (line 1)

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

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Application Number(s) or Patent Number(s)

Mark if additional numbers attached.

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

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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.

