PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JON O. RAYNER	06/16/2005
JONATHAN F. SMITH	07/25/2005
BOLYN HUBBY	07/19/2005
ELIZABETH A. REAP	07/08/2005

RECEIVING PARTY DATA

Name:	ALPHAVAX, INC
Street Address:	2 TRIANGLE PARK, P.O. BOX 11307
City:	RESEARCH TRIANGLE PARK
State/Country:	NORTH CAROLINA
Postal Code:	27709

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14229736

CORRESPONDENCE DATA

Fax Number: (720)931-3001

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 720-931-3000

Ssullivan@lathropgage.com, Bsimon@lathropgage.com, Email:

Boulderip@lathropgage.com

Correspondent Name: LATHROP & GAGE LLP

Address Line 1: 4845 PEARL EAST CIRCLE, SUITE 102

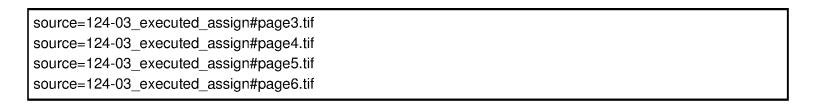
Address Line 4: **BOULDER, COLORADO 80301**

ATTORNEY DOCKET NUMBER:	555979: 124-03B
NAME OF SUBMITTER:	SALLY A. SULLIVAN
SIGNATURE:	/sallyasullivan/
DATE SIGNED:	06/02/2015

Total Attachments: 6

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> **PATENT REEL: 035767 FRAME: 0577** 503332130



PATENT REEL: 035767 FRAME: 0578

ASSIGNMENT

WHEREAS, I, (each herein called "ASSIGNOR"),

2001 Part Marrian (1. 16-16-05)

Jon O. Rayner, residing at 202 Tobacco Farm Lane, Apex, NC 27502, USA;

Jonathan F. Smith, residing at 104 Bronzewood Court, Cary, NC 27511, USA;

Bolyn Hubby (formerly Bolyn Fralish), residing at 101\ Village, Crossing Onve. Chapel Hill, NC 27517 1-18-205

Elizabeth A. Reap, residing at 12 Swallows Ridge Court, Durham, NC 27713, USA;

am an inventor of the invention entitled "TC-83-Derived Alphavirus Vectors, Particles and Methods" for which I have filed applications in the United States Patent and Trademark Office:

U.S. Provisional Patent Application Number 60/572,212, filed on May 18, 2004; and

U.S. Nonprovisional Patent Application Number 11/132,711 filed on May 18, 2005; and

International Patent Application under the Patent Cooperation Treaty, designating all states, filed on May 18, 2005, Application No. PCT/US2005/017766;

AND WHEREAS, Alphavax, Inc., (herein called "ASSIGNEE"), an entity organized and existing under the laws of the State of Delaware, having a principal place of business at 2 Triangle Park, P.O. Box 11307, Research Triangle Park, North Carolina 27709-0307, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said applications;

NOW, THEREFORE, in consideration of my contractual and other legal obligations, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, a said ASSIGNOR, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, my entire right, title and interest in, to and under the said invention, and the said International Application and all national and regional applications and all divisions, renewals, continuations, continuations-in-part and subsequent applications thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in the United States or countries foreign to the United States; together with the right to file such applications and the right to claim for the same the priority of said U.S. Provisional Patent Application and said

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International Patent Application and subsequent related applications as listed above under The International Union for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in the United States or any country foreign to the United States and all extensions, renewals and reissues thereof;

AND I HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

AND I HEREBY covenant and agree that I have full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith;

AND I HEREBY authorize the above-mentioned ASSIGNEE or its legal representative to insert in this instrument the filing date(s) and serial number(s) of said application(s) or any other information that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or the Patent Office of any other country for recordation of this document;

AND I HEREBY further covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all continuing and subsequent applications, including divisional, reissue and foreign applications, make all rightful oaths, and generally cooperate and do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain, maintain, and enforce proper protection for said invention in any and all countries;

IN TESTIMONY WHEREOF, I hereunto set my hand and seal (if applicable) the day and year set opposite my signature.

<u>C-IC-05</u> Date	Jon Ø. Rayner
STATE OF North Carolina)
COUNTY OF Wake) ss.)
2005, personally appeared the abname is subscribed to this instr	authority, on this Le day of June , nove person, known to me to be the person whose ument and who acknowledged to me that s/he see will for the purposes and consideration herein
Date: 16 June 05	Betsy J. Bissett
My Commission expires: No v. /	Notary Public 14, 2009
Additional Assignors on additiona	al sheets: Yes

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7-25-05	quathon	7. Sm. Th
Date	Jonathan F. Smith	
STATE OF NORTH CARONINA) ss.		
COUNTY OF WAKE		
BEFORE ME, the undersigned authorication 2005, personally appeared the above pename is subscribed to this instrument executed the same of her own free will expressed.	erson, known to me to tand who acknowle	o be the person whose dged to me that s/he
Date: <u>A5 July 2005</u> My Commission expires: <u>November</u>	Busy Sol	Notary Public
My Commission expires: November	<u>1</u> 4,2009	SECTIONS IN THE PROPERTY OF TH
Additional Assignors on additional shee	ets: Yes	A PORTE O

Date Bolyn Hubby
STATE OF North Carolina)
STATE OF North Carolina) SS. COUNTY OF Wake.
BEFORE ME, the undersigned authority, on this 19 day of 2005, personally appeared the above person, known to me to be the person whose name is subscribed to this instrument and who acknowledged to me that s/he executed the same of his/her own free will for the purposes and consideration herein expressed.
Date: 19 July 2005 Butsy & Bissett Notary Public Notary Public
My Commission expires: Nov. 14, 2009 Notary Public
Additional Assignors on additional sheets: Yes

Boly 05 Elizabeth A Reap
STATE OF North Carolina) COUNTY OF Wake)
COUNTY OF Wake) ss.
BEFORE ME, the undersigned authority, on this 8 day of 2005, personally appeared the above person, known to me to be the person whose name is subscribed to this instrument and who acknowledged to me that s/he executed the same of his own free will for the purposes and consideration herein expressed.
Date: Bfuly 2005 Betsy Bessett Notary Public My Commission expires: 11/14/09
My Commission expires: 11/14/09
Additional Assignors on additional sheets: No