PATENT ASSIGNMENT

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| Egil Lien | 09/15/2006 |
| Jon D. Goguen | 09/15/2006 |

RECEIVING PARTY DATA

| Name: | University of Massachusetts |
|-----------------|-------------------------------|
| Street Address: | 225 Franklin Street, Floor 12 |
| City: | Boston |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02110 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------|-----------|
| PCT Number: | US0607443 |

CORRESPONDENCE DATA

Fax Number: (617)832-7000

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 617-832-1000

Email: iclauss@foleyhoag.com
Correspondent Name: Isabelle M. Clauss, Esq.
Address Line 1: 155 Seaport Blvd.

Address Line 4: Boston, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER: UMK-00525

NAME OF SUBMITTER: David M. Narkunas

Total Attachments: 2

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PATENT REEL: 019756 FRAME: 0542

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ASSIGNMENT

WHERE So we, Egil Lien, of 515 Putnam Avenue, #4, Cambridge, Massachusetts 02139, and John D. Goguen, of 237 Beatle St. Have MA 01520, have developed certain inventions described in a patent application entitled Modified Pathogens for Use as Vaccines, filed on March 2, 2006 and having International Patent Application No. PCT/US2006/007443 and having full right to convey our entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, *University of Massachusetts* ("Assignee"), a non-profit corporation of the Commonwealth of Massachusetts, having its principal place of business at 225 Franklin Street, 12th Floor, Boston, Massachusetts 02110, is desirous of acquiring the entire right, title and interest in and to said invention or inventions and any and all patents to be obtained therefor;

NOW, THEREFORE, in valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the undersigned, the undersigned do hereby sell, assign, transfer and set over unto said Assignee, its successors and assigns, their entire right, title and interest throughout the world in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any applications to which the aforesaid application claims priority; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications and claim priority under the provisions of any international convention or treaty; also the entire right, title and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize and request the issuing authority to issue any and all patents on said application or applications to said Assignee or its successors and assigns.

The undersigned further agree, without any further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

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9/15/06 (Date) Egil Lien Commonwealth of Massachusetts County of Wacester On this the 15th day of September, 2006 before me personally appeared Egil Lien, to me personally known, and known to me to be the person who signed the foregoing assignment, and acknowledged the signing of same as his free act and deed. Notary Public

My commission expires 5/5/// Goguen Commonwealth of Massachusetts County of Workster foregoing assignment, and acknowledged the signing of same as his free act and deed. Notary Public

My commission expires 5/5/11

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IN TESTIMONY WHEREOF, the undersigned have hereunto set their hands and seals

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RECORDED: 08/28/2007

on the date after their signatures.

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