



Form PTO-1595 (Rev. 07/05)
OMB No. 0651-0027 (exp. 6/30/2008)

07-19-2007

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office



103428122

To the Director of the U.S. Patent and

Documents or the new address(es) below.

1. Name of conveying party(ies)

1. Ekambar R. Kandimalla; 2. Daqing Wang; 3. Yukui Li; 4. Dong Yu; 5. FuGang Zhu; 6. Lakshmi Bhagat; 7. Sudhir Agrawal

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 1-5. 2/13/07; 6-7. 2/12/07

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Idera Pharmaceuticals, Inc.

Internal Address: _____

Street Address: 167 Sidney Street

City: Cambridge

State: MA

Country: US

Zip: 02139

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

11/549,048

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Keown & Zuccherro, LLP

Internal Address: Suite 1200

Street Address: 500 West Cummings Park

City: Woburn

State: MA

Zip: 01801

Phone Number: 781-938-1805

Fax Number: 781-938-4777

Email Address: jzuccherro@keownlaw.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40

- ☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____

Expiration Date _____

b. Deposit Account Number 502285

Authorized User Name Keown & Zuccherro, LLP

9. Signature:

Joseph C. Zuccherro
Signature

Joseph C. Zuccherro, Reg. No. 55762

Name of Person Signing

7-12-07

Date

Total number of pages including cover sheet, attachments, and documents: _____

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT
REEL: 019593 FRAME: 0631

ASSIGNMENT

WHEREAS we, **Ekambar R. Kandimalla**, being a citizen of India and residing at 6 Candlewood Lane, Southboro, Massachusetts, 01772-1981; **Daqing Wang**, being a citizen of Canada and residing at 7 Selfridge Road, Bedford, Massachusetts, 01730; **Yukui Li**, being a citizen of the United States of America and residing at 69 Prospect Street, Newton, Massachusetts, 02465; **Dong Yu**, being a citizen of China and residing at 25 Indian Pond Road, Westboro, Massachusetts, 01581; **FuGang Zhu**, being a citizen of Canada and residing at 16 Woodland Road, Bedford, Massachusetts, 01730; **Lakshmi Bhagat**, being a citizen of India and residing at 1550 Worcester Street, Framingham, Massachusetts, 01702 and **Sudhir Agrawal**, being a citizen of the United States of America and residing at 61 Lamplighter Drive, Shrewsbury, Massachusetts, 01545, are inventors of certain new and useful inventions and discoveries, for which we have made an application for Letters Patent entitled **IMMUNE REGULATORY OLIGONUCLEOTIDE (IRO) COMPOUNDS TO MODULATE TOLL-LIKE RECEPTOR BASED IMMUNE RESPONSE**, which application was filed in the United States Patent and Trademark Office on October 12, 2006, and assigned Serial No. 11/549,048; and

WHEREAS Idera Pharmaceuticals, Inc., a corporation existing under the laws of Massachusetts, whose address is 167 Sidney Street, Cambridge, MA 02139, which together with its successors and assigns is hereinafter called "ASSIGNEE," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited;

NOW THEREFORE, for and in consideration of good and valuable consideration furnished by ASSIGNEE to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservations:

1. Assign, transfer and convey to ASSIGNEE the entire right, title and interest in and to said inventions and discoveries, said application for Letters Patent, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation,

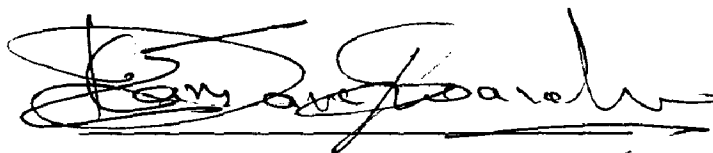
continuation-in-part, and convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon, or arise from, said inventions, said discoveries, said applications and said Letters Patent;

2. Authorize ASSIGNEE to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable, under International Conventions or otherwise;
3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments throughout the world to issue or transfer all said Letters Patent to ASSIGNEE as ASSIGNEE of the entire right, title and interest therein or otherwise as ASSIGNEE may direct;
4. Warrant that we have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same, or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we have good right to assign the same to ASSIGNEE without encumbrance;
5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon ASSIGNEE's request and at ASSIGNEE's expense, but without additional consideration to us or them, all acts reasonably serving to assure that said inventions and discoveries, said patent applications, and said Letters Patents shall be held and enjoyed by ASSIGNEE as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives and assigns as if this Assignment had not been made; and particularly to execute and deliver to ASSIGNEE all lawful application documents including petitions, specifications and oaths, and all assignments, disclaimers and lawful affidavits in form and

substance as may be requested by ASSIGNEE; and to communicate to ASSIGNEE all facts known to me relating to said inventions and discoveries or the history thereof, and to testify as to the same in any court or proceeding; and to furnish ASSIGNEE any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said invention and discoveries.

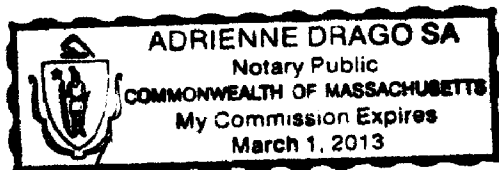
IN TESTIMONY WHEREOF, we have hereunto set our hands and seals.

Date: Feb. 13, 2007.

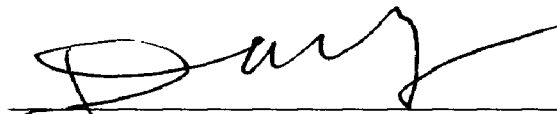


Ekambar R. Kandimalla

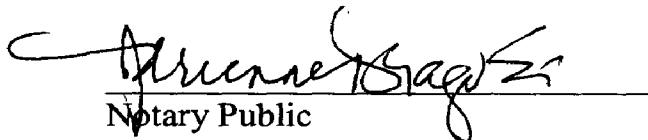
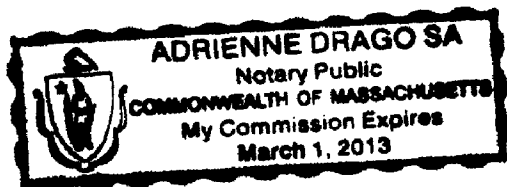
Then personally appeared before me this 13th day of February, 2007, the above named Ekambar R. Kandimalla who acknowledged the execution of the foregoing instrument to be his free act and deed.


Notary Public

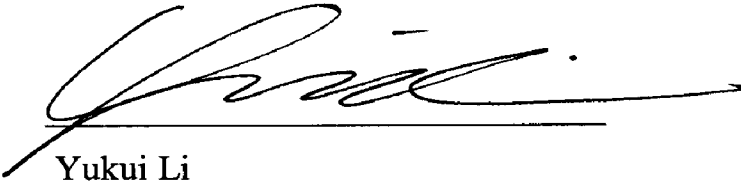
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Daqing Wang

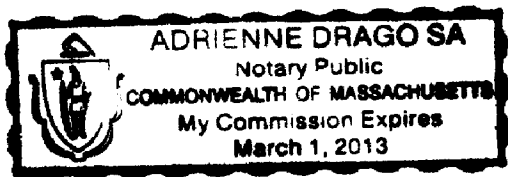
Then personally appeared before me this 13th day of February, 2007, the above named Daqing Wang who acknowledged the execution of the foregoing instrument to be his free act and deed.

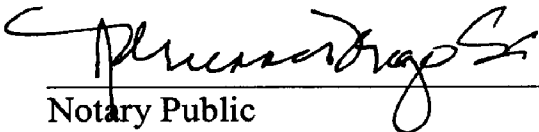

Notary Public

Date: 2/13/2007

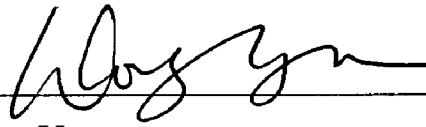

Yukui Li

Then personally appeared before me this 13th day of February, 2007,
the above named Yukui Li who acknowledged the execution of the
foregoing instrument to be his free act and deed.

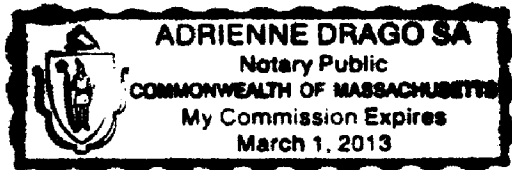




Notary Public

Date: 2-13-07


Dong Yu

Then personally appeared before me this 13th day of February, 2007,
the above named Dong Yu who acknowledged the execution of the
foregoing instrument to be his free act and deed.




Notary Public

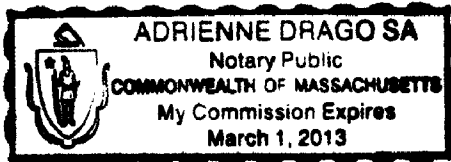
Date:

2-13-07

FuGang Zhu

FuGang Zhu

Then personally appeared before me this 13th day of February, 2007,
the above named FuGang Zhu who acknowledged the execution of the
foregoing instrument to be his free act and deed.



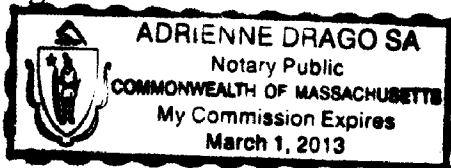
Adrienne Drago SA
Notary Public

Date: 02-12-07

Lakshmi Bhagat

Lakshmi Bhagat

Then personally appeared before me this 12th day of February, 2007,
the above named Lakshmi Bhagat who acknowledged the execution of the
foregoing instrument to be his free act and deed.

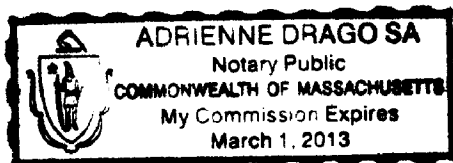


Adrienne Drago SA
Notary Public

Date: 02/12/07

Sudhir Agrawal
Sudhir Agrawal

Then personally appeared before me this 12th day of February, 2007,
the above named Sudhir Agrawal who acknowledged the execution of the
foregoing instrument to be his free act and deed.



Adrienne Drago SA
Notary Public