Form PTO-1595 (Rev. 03-05) OMB No. 0651-0027 (exp. 6/30/2005)

A. Patent Application No.(s)

NEW

03-05-2007

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

nents or the new address(es) below.



103377594

163-8001

To the Director of the U.S. Patent an

1. Name of conveying party(ies): Takaji WAKITA (1/31/2007), Takanobu KATO (1/31/2007), Tomoko DATE (1/31/2007), Michiko MIYAMOTO (1/31/2007),

Additional name(s) of conveying party(ies) attached? | X | Yes

3. Nature of conveyance/Execution Date(s):					
Execution Date(s): in parentheses after inventor name					
X Assignment Merger Change of Name					
Security Agreement Joint Research Agreement					
Government Interest Assignment					

2.	Name	and	address	of	receiving	party(i	es)
N:	ame.	Tol	kva Metror	no lit	an Omaniza	tion for N	Mac

Internal Address: Street Address: 8-1, Nishishinjuku 2-chome Shinjuku-ku Tokyo

JAPAN

State:	<del></del>
Country:	Zip:
Additional name(s) & address(es) attached:	X

4. Applicati	on or pater	nt number(s):	

Executive Order 9424, Confirmatory License

X This document is being filed together with a new application. B. Patent No.(s)

Additional	numbers	attached

_,	$\overline{}$	
Yes	×	No

lame and address to whom correspondence oncerning document should be mailed:

Name:

9. Signature:

Gerald M. Murphy, Jr.

BIRCH, STEWART, KOLASCH & BIRCH,

Internal Address: Atty. Dkt.: 1254-0339PUS1 Street Address: 8110 Gatehouse Road

Suite 100 East P.O. Box 747

City:		Falls Church	
State:	VA	Zip:	22040-0747
Phone Number:		(703) 205-80	000
Fax Number:		(703) 205-80	50
Email Address:		mailroom@bsk	kb.com

Name of Person Signing

Total number of applications and patents involved:	

7. Total	l fee (37 CFR 1.21(h) & 3.41)	\$	40.00
	Authorized to be charged by	credit	card
	Authorized to be charged to	deposit	t account
×	Enclosed		

None required (government interest not affecting title)					
. Payment Inform	nation				
a. Credit Card	Last 4 Numbers				
	Expiration Date	-			

b. Deposit Account Number Authorized User Name

Gerald M. Murphy, Jr. - 28,977

February 22, 2007 24/26/2007 SFREY1 Date 0000057 1166879

Total number of pages including cover sheet attachments:

.00 OP

Birch, Stewart, Kolasch & Birch, LLP

REEL: 018980 FRAME: 0115



## 11/660794 IAP8 Rec'd PCT/PTO 22 FEB 2007

Form PTO-1595 (continued)							
Additional Conveying Party(ies)/Execution Date(s) (1. Continued):							
Raif BARTENS	CHLAGER (1/23/2007), Jun-ichi TAN	ABE (1/31/2007), and Saburo SON	NE (1/31/2007)				
Additional As	ssignees (2. Continued):						
Assignee Name:	TORAY INDUSTRIES, INC.						
Internal Address:							
Street Address:	1-1, Nihonbashi-Muromachi 2-chome, Ch Tokyo 103-8666 JAPAN	uo-ku					
City:	State:	Country:	Zip:				
Assignee Name:							
Internal Address:							
Street Address:							
City:	State:	Country:	Zip:				
Assignee Name:							
Internal Address:							
Street Address:							
			!				
City:	State:	Country:	Zip:				
Additional Applications and/or Patents (4. Continued):							
Additional Patent Application Numbers 4A. Continued:  Additional Patent Numbers 4B. Continued:							
	Additional numbers attached?	Yes No					

2

Docket No.: 1254-0339PUS1

## IAP8 Rec'd PCT/PTO 22 FEB 2007.

Attorney's Docket No.: 1254-0339PUS1

## **Assignment of Application**

I(We),
Takaji WAKITA of 5-17-205, Narimasu 4-chome, Itabashi-ku, Tokyo 175-0094 Japan,
Takanobu KATO of Eminence-Ishikawabashi 206, 1-41, Shogetsu-cho, Mizuho-ku,
Nagoya-shi, Aichi 467-0004 Japan, Tomoko DATE of Terrace-Shinjo 303, 13-5,
Shinjo 3-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0044 Japan,
Michiko MIYAMOTO of Sunrise-Hill 7-202, 32-1, Honshuku-cho 1-chome, Fuchu-shi,
Tokyo 183-0032 Japan, Ralf BARTENSCHLAGER of Eichenweg 16, Schriesheim 6919
Germany, Jun-ichi TANABE of 9-5-101, Hananoki, Fujisawa-shi, Kanagawa 251-0874 Japan
and Saburo SONE of 1120-3, Yoshida-cho, Totsuka-ku, Yokohama-shi, Kanagawa
244-0817 Japan , respectively,
have invented certain new and useful improvements in:
MODIFIED HUMAN HEPATITIS C VIRUS GENOMIC RNA THAT CAN B
AUTONOMOUSLY REPLICATED
for which an application for Letters Patent was executed on
(Application No. NEW , filed 02/22/07 ), and
WHEREAS, TOKYO METROPOLITAN ORGANIZATION FOR MEDICAL
RESEARCH and TORAY INDUSTRIES, INC.
(hereinafter referred to as "ASSIGNEE")having a place of business at:
8-1, Nishishinjuku 2-chome, Shinjuku-ku, Tokyo 163-8001 Japan and
1-1, Nihonbashi Muromachi 2-chome, Chuo-ku, Tokyo 103-8666 Japan
is desirous of acquiring the entire right, title and interest in and to said invention and in and to an
Letters Patent that may be granted therefore in the United States and its territorial possessions and
in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any official of any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

PATENT REEL: 018980 FRAME: 0117 Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its legal representatives and assigns covenant and any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of BIRCH, STEWART, KOLASCH & BIRCH, LLP of 8110 Gatehouse Road, Suite 100 East, Falls Church, Virginia 22042-1248 U.S.A. the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: Jamay 31. 2007	Talinji Walie
	(Signature of inventor) Takaji WAKITA
Date: January 31. 2007	(Signature of inventor) Takanobu KATO
Date: January . 31. 2007.	Signature of inventor) Tomoko DATE
Date: January 31, 2007	Michiko Miyamoto (Signature of inventor) Michiko MIYAMOTO
Date: January 28rd 2007	(Signature of inventor) Ralf BARTENSCHLAGER
Date: January 31, 2007	Signature of inventor) Jun-ichi TANABE
Date: January 31, 2007	Salva Scane (Signature of inventor) Saburo SONE

**RECORDED: 02/22/2007** 

PATENT REEL: 018980 FRAME: 0118