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9 -		U.S. DEPARTMENT OF COMMERCE		
0	102042808	Patent and Trademark Office		
7	VIA FIRST CLASS WITH	PATENTS ONLY Attorney Docket No. CH012-02.US		
5	To the Commissioner for Patents: Please record the att	ached original documents or copy thereof.		
	1. Name of conveying party(ies): Thomas Arrhenius; Jie Fei Cheng Mark E. Wilson; Rossy Serafimov Masahiro Nishimoto; David Mark Wallace Sovouthy Tith; Steve Joel Brown Charles Stanford Harmon; Gary D. Lopaschuk Jason R. Dyck	2. Name and address of receiving party(ies): Chugai Seiyaku Kabushiki Kaisha 1-9, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8301, JAPAN		
	Additional name(s) of conveying party(ies) attached? [] Yes [x] No	OFFICE O		
ſ	3. Nature of conveyance:	NCC P 2		
	[x] Assignment [] Merger [] Security Agreement [] Change of Name [] Other	PINANCE SECTION		
	Execution Date of each conveying party: June 3, 2004; May 12, 2004; June 3, 2004; May 12, 2004; May 12, 2004; May 12, 2004; May 26, 2004; September 7, 2004; May 20, 2004; May 13, 2004; May 13, 2004	N 20		
	4. Application number(s) or patent number(s):			
	If this document is being filed together with a new application, the execution date of the application for each conveying party is:			
	A. Patent Application No.(s) PCT/US02/04729 Additional numbers attached? [] Yes [x] No	B. Patent No.(s) 60/270,034		
	5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1		
	CHUICAI DHADAMA LICA LLC	7. Total fee (37 CFR 3.41): \$ 40.00		
	CHUGAI PHARMA USA, LLC 6225 Nancy Ridge Drive	[x] Authorized to charge any underpayment		
Ì	San Diego, CA 92121 (858) 626-2540	[x] Authorized to charge any overpayment [x] Authorized to be charged to deposit account		
	DO NOT USE THIS SPACE	8. Deposit account number: 50-0854		
	9. Statement and signature.			
To the east of my knowledge and belief, the foregoing information is true and correct and any attacopy of the original document.		nformation is true and correct and any attached copy is a true		
	Luulestel	_September 17, 2004		
	Daniel W. Collins Registration No. 31,912	Date		
t				

09/22/2004 GTON11 00000069 500854 PCTUS0204729

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40.00 DA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Thomas ARRHENIUS et al.

Serial No.: 10/468,378

Title: METHODS FOR TREATING METABOLIC DISEASES USING MALONYL-CoA

DECARROWN AGERG

DECARBOXYLASE INHIBITORS

Attorney Docket No.: CH012-02.US

Customer No.: 29294

Group Art Unit: To Be Assigned

Examiner: To Be Assigned

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Date of Deposit: September 17, 2004

Bv:

Mail Stop Assignment Recordation Services
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RECORDING ASSIGNMENTS

Dear Sir:

Transmitted herewith please find the following documents with respect to the filing of the above-referenced application for utility patent:

- 1) Transmittal Letter (2 pgs.);
- 2) Recordation Form Cover Sheet/Form PTO-1595 (1 pg.);
- 3) Six Partially Executed Assignments (collectively consisting of all inventors) (7 pgs. each/total 42 pgs.); and
- 4) Return/Stamped postcard.

1

PATENT REEL: 015800 FRAME: 0207 The Commissioner is authorized to charge all fees, including any underpayment or overpayment of fees, associated with this transmittal to Deposit Account No. 50-0854.

Please direct all correspondence concerning this application to the undersigned.

Respectfully Submitted,

Daniel W. Collins

Registration No. 31,912

Attorney for Applicants

Chugai Pharma USA, LLC Patent Department 6225 Nancy Ridge Drive San Diego, CA 92121

Phone:

858-626-2540

Facsimile: E-Mail:

858-626-2577 dcollins@chugai-pharm.com

Date: September 17, 2004

ASSIGNMENT

WE have invented certain new and useful improvements for which WE have executed a patent application entitled "METHODS FOR TREATING METABOLIC DISEASES USING MALONYL-CoA DECARBOXYLASE INHIBITORS", in the United States, which:

Is filed herewith, and WE hereby authorize the assignee below to add the serial number assigned to this application, when assigned, without our reexecution or reassignment.

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In consideration of the sum of One Dollar (\$1.00) and other good, valuable consideration, the receipt of which is hereby acknowledged, we, the inventors and Assignors, hereby acknowledge for ourselves and for our heirs, legal representatives and assigns that:

As of the filing date of the earliest described application above, WE have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said Chugai Seiyaku Kabushiki Kaisha (also known as Chugai Pharmaceutical Company, Limited), having an office at 1-9, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8301, Japan, a statutory address of 5-1, Ukima 5-chome, Kita-ku, Tokyo 115-8543, Japan, and a mailing address of 6225 Nancy Ridge Dr., San Diego, California 92121, its successors, legal representatives and assigns, (the ASSIGNEE) the entire right, title, and interest throughout the world in this invention, its improvements and that application for United States Patent executed by us, and all divisions, renewals, continuations and continuations-in part thereof, and any patents, inventor's certificate or like rights of exclusion granted therefrom and all reissues and extensions thereof, and all rights of priority under 35 USC 119(e)(1) and under International Conventions, including but not limited to 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 patent applications hereafter filed for said improvements in any other country or countries, and any patents, inventor's certificate or like rights of exclusion granted therefrom, and all extensions, renewals and reissues thereof.

The Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents, is to issue all Letters Patent for said improvements to the assignee in accordance with the terms of this instrument.

The Assignee can apply in any or all countries in our names or in its own name for patents, inventor's certificates, or like rights of exclusion for said inventions and improvements; and WE agree without further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Agreement.

WE will communicate to ASSIGNEE all facts known to us concerning said inventions and improvements, and to testify in any legal proceeding, sign all lawful papers, execute all continuation, division, continuation-in-part and reissue applications, make all rightful oaths, and to perform any other reasonable and lawful act to assist ASSIGNEE in obtaining full protection and title in and to said inventions and improvements in all countries.

Page 1 of 7

Residence Address: 12744 Via Esperia, Del Mar, CA 92014

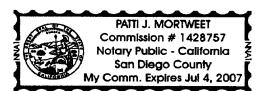
Citizenship: Sweden

Inventor's signature

On June 3, 2001 before me, Jule 1, Notary Public, personally appeared Thomas Arrhenius, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/site executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person

WITNESS my hand and official seal.

[SEAL]



Signature RAND MONUES

NOTARY PUBLIC

Full name of inventor: Jie Fei Cheng

acted, executed the instrument.

Residence Address: 7781 Paseo La Jolla, Carlsbad, CA 92009

Citizenship: People's Republic of China

Inventor's signature

Date 05/12/00

On My ld, Wy before me, ld J Monday, Notary Public, personally appeared Jie Fei Cheng, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]



Signature LOM MY

Docket Number: CH012-02.US Full name of inventor: Mark E. Wilson Residence Address: 117 N. Kalbaugh St., Ramona, CA 92065 Citizenship: United States of America Date On MA 3,2004 before me, 12th J Million Notary Public, appeared Mark E. Wilson, personally known to me (or proved on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL] Signature, PATTI J. MORTWEET Commission # 1428757 NOTARY PUBLIC Notary Public - California San Diego County My Comm. Expires Jul 4, 2007 Full name of inventor: Rossy Serafimov Residence Address: 14, Rue du Pont des Morts, 57000 Metz, France Citizenship: United States of America Inventor's signature _ Date before me, , Notary Public, personally appeared Rossy Serafimov, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Signature

Full name of inventor:	Masahiro Nishimot	0
Residence Address: 5	<u>3-1-203 Chabatake,</u>	Susono-shi, Shizuoka
Citizenship: <u>Japan</u>		
Inventor's signature _		·
evidence) to be the acknowledged to me th	person whose nar at he/she executed t e instrument, the pe	Notary Public, personally known to me (or proved on the basis of satisfactory me is subscribed to the within instrument and the same in his/her authorized capacity, and that by erson or the entity upon behalf of which the person
WITNESS my han	d and official seal.	
[SEAL]		Signature
		NOTARY PUBLIC
Full name of inventor:		
		an Diego, CA 92121
Citizenship: <u>United Sta</u>		
inventor's signature <u>4</u>	Lund Mund C	Min Date 5/12/04
appeared <u>David Mark V</u> evidence) to be the acknowledged to me tha	Vallace, personally laperson whose nare at he/she executed to instrument, the pe	Notary Public, personally mown to me (or proved on the basis of satisfactory ne is subscribed to the within instrument and he same in his/her authorized capacity, and that by rson or the entity upon behalf of which the person
WITNESS my han	d and official seal.	
No.	PATTI J. MORTWEET commission # 1428757 ctary Public - California San Diego County Comm. Expires Jul 4, 2007	Signature FOM Mules NOTARY PUBLIC

Page 4 of 7

Docket Number: CH012-02.US Full name of inventor: Sovouthy Tith Residence Address: 9494 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126 Citizenship: United States of America Inventor's signature Date On ______before me, _____, Notary Public, personally appeared Sovouthy Tith, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL] Signature NOTARY PUBLIC Full name of inventor: Steve Joel Brown Residence Address: 4737 Mt. Almagosa Dr., San Diego, CA 92111 Citizenship: United States of America Sam Date 5/12/2009 Inventor's signature On May 12,2004 before me, tath J. Morwot, Notary Public, personally appeared Steve Joel Brown, personally known to me (er proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by

his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]



Signature 7

Docket Number: CH012-02.US
Full name of inventor: Charles Stanford Harmon
Residence Address: P.O. Box 676112, Rancho Santa Fe, CA 92067
Citizenship: United States of America
Inventor's signature Church Haws Date 5/12/04
On May 12,2001 before me, Hath J. Maket, Notary Public, personally appeared Charles Stanford Harmon, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.
[SEAL] PATTI J. MORTWEET Commission # 1428757 Notary Public - California San Diego County My Comm. Expires Jul 4, 2007 Signature NOTARY PUBLIC
Full name of inventor: Gary D. Lopaschuk
Residence Address: 9 Promontory Point, Edmonton, Alberta, Canada, T6R 1H4
Citizenship: Canadian
Inventor's signature Date
Onbefore me,, Notary Public, personally appeared Gary D. Lopaschuk, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.

Page 6 of 7

Signature____

NOTARY PUBLIC

[SEAL]

Full name of inventor: Jason R. Dyck Residence Address: 37-52147 Range Road 231, Sherwood Park, Alberta, Canada, 8B 1A4 Citizenship: Canadian Inventor's signature _____ Date ____ On _____before me, _____, Notary Public, personally appeared Jason R. Dyck, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Döcket Number: CH012-02.US

[SEAL]

Signature

ASSIGNMENT

WE have invented certain new and useful improvements for which WE have executed a patent application entitled "METHODS FOR TREATING METABOLIC DISEASES USING MALONYL-Coa DECARBOXYLASE INHIBITORS", in the United States, which:

Is filed herewith, and WE hereby authorize the assignee below to add the serial number assigned to this application, when assigned, without our reexecution or reassignment.

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In consideration of the sum of One Dollar (\$1.00) and other good, valuable consideration, the receipt of which is hereby acknowledged, we, the inventors and Assignors, hereby acknowledge for ourselves and for our heirs, legal representatives and assigns that:

As of the filing date of the earliest described application above, WE have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over. unto the said Chugai Seiyaku Kabushiki Kaisha (also known as Chugai Pharmaceutical Company, Limited), having an office at 1-9, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8301, Japan, a statutory address of 5-1, Ukima 5-chome, Kita-ku, Tokyo 115-8543, Japan, and a mailing address of 6225 Nancy Ridge Dr., San Diego, California 92121, its successors, legal representatives and assigns, (the ASSIGNEE) the entire right, title, and interest throughout the world in this invention, its improvements and that application for United States Patent executed by us, and all divisions, renewals, continuations and continuations-in part thereof, and any patents, inventor's certificate or like rights of exclusion granted therefrom and all reissues and extensions thereof, and all rights of priority under 35 USC 119(e)(1) and under International Conventions, including but not limited to 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 patent applications hereafter filed for said improvements in any other country or countries, and any patents, inventor's certificate or like rights of exclusion granted therefrom, and all extensions, renewals and reissues thereof.

The Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents, is to issue all Letters Patent for said improvements to the assignee in accordance with the terms of this instrument.

The Assignee can apply in any or all countries in our names or in its own name for patents, inventor's certificates, or like rights of exclusion for said inventions and improvements; and WE agree without further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Agreement.

WE will communicate to ASSIGNEE all facts known to us concerning said inventions and improvements, and to testify in any legal proceeding, sign all lawful papers, execute all continuation, division, continuation-in-part and reissue applications, make all rightful oaths, and to perform any other reasonable and lawful act to assist ASSIGNEE in obtaining full protection and title in and to said inventions and improvements in all countries.

Page 1 of 7

Docket Number: CH012-02.US Full name of inventor: Thomas Arrhenius Residence Address: 12744 Via Esperia, Del Mar, CA 92014 Citizenship: Sweden Inventor's signature _____ Date____ On _____before me, _____, Notary Public, personally appeared Thomas Arrhenius, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. Signature_____ [SEAL] **NOTARY PUBLIC** Full name of inventor: Jie Fei Cheng Residence Address: 7781 Paseo La Jolla, Carlsbad, CA 92009 Citizenship: People's Republic of China Inventor's signature _____ Date____ On ______, Notary Public, personally appeared Jie Fei Cheng, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal.

[SEAL]

Signature_____

Docket Number: CH012-02.US Full name of inventor: Mark E. Wilson Residence Address: 117 N. Kalbaugh St., Ramona, CA 92065 Citizenship: United States of America Inventor's signature _____ Date____ ___before me, _____, Notary Public, personally appeared Mark E. Wilson, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. Signature __ _ [SEAL] NOTARY PUBLIC Full name of inventor: Rossy Serafimov Residence Address: 14, Rue du Pont des Morts, 57000 Metz, France Citizenship: United States of America On 5/26/04 before me, Ye sacks Michael, Notary Public, personally appeared Rossy Serafimov, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. Signature < [SEAL] NOTARY PUBLIC

Page 3 of 7

Full name of inventor	Masahiro Nishimoto			
Residence Address: 58-1-203 Chabatake, Susono-shi, Shizuoka				
	Date			
evidence) to be the acknowledged to me	before me,, Notary Public, personally lishimoto, personally known to me (or proved on the basis of satisfactory person whose name is subscribed to the within instrument and that he/she executed the same in his/her authorized capacity, and that by he instrument, the person or the entity upon behalf of which the person estrument.			
WITNESS my ha	and and official seal.			
[SEAL]	Signature			
	NOTARY PUBLIC			
	David Mark Wallace			
	6448 Peinado Way, San Diego, CA 92121			
	States of America			
Inventor's signature	Date			
appeared <u>David Mark</u> evidence) to be the acknowledged to me t	before me,, Notary Public, personally Wallace, personally known to me (or proved on the basis of satisfactory person whose name is subscribed to the within instrument and hat he/she executed the same in his/her authorized capacity, and that by he instrument, the person or the entity upon behalf of which the person istrument.			
WITNESS my ha	and and official seal.			
[SEAL]	Signature			
	NOTARY PUBLIC			

Full name of inventor: <u>S</u>	vouthy Tith			
Residence Address: 9494 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126				
Citizenship: United State	s of America			
Inventor's signature	Date			
evidence) to be the pe acknowledged to me that	before me,, Notary Public, personally personally known to me (or proved on the basis of satisfactors son whose name is subscribed to the within instrument and e/she executed the same in his/her authorized capacity, and that by strument, the person or the entity upon behalf of which the personnent.			
WITNESS my hand	nd official seal.			
[SEAL]	Signature			
	NOTARY PUBLIC			
Full name of inventor: <u>S</u>	eve Joel Brown			
Residence Address: 473	Mt. Almagosa Dr., San Diego, CA 92111			
Citizenship: United State	s of America			
Inventor's signature	Date			
appeared Steve Joel Broevidence) to be the peacknowledged to me that his/her signature on the inacted, executed the instru				
WITNESS my hand	nd official seal.			
[SEAL]	Signature			

Page 5 of 7

Docket Number: CH012-02.US Full name of inventor: Charles Stanford Harmon Residence Address: P.O. Box 676112, Rancho Santa Fe, CA 92067 Citizenship: <u>United States of America</u> Inventor's signature _____ Date____ On ________, Notary Public, personally appeared Charles Stanford Harmon, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL] Signature____ **NOTARY PUBLIC** Full name of inventor: Gary D. Lopaschuk Residence Address: 9 Promontory Point, Edmonton, Alberta, Canada, T6R 1H4 Citizenship: Canadian Inventor's signature _____ Date ____ On _______before me, ______, Notary Public, personally appeared Gary D. Lopaschuk, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal.

WITHLOS my hand and official seal.

[SEAL]

Signature_____

Full name of inventor: <u>Jaso</u>	n R. Dyck		
Residence Address: 37-521	47 Range Road 231, She	erwood Park, Alber	ta, Canada,
<u>8B 1A</u> 4	<u> </u>		
Citizenship: Canadian		·	
Inventor's signature		Date	
Onb appeared <u>Jason R. Dyck</u> , p evidence) to be the perso acknowledged to me that he his/her signature on the inst acted, executed the instrume	on whose name is sub she executed the same in rument, the person or the	(or proved on the escribed to the wanth in the high to the war in	basis of satisfactory ithin instrument and I capacity, and that by
WITNESS my hand and	d official seal.		
[SEAL]	Signatur	e	
		NOTARY PUBLIC	

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Page 1 of 7

Full name of inventor: Thomas Arrhenius			
		r, CA 92014	
Inventor's signature		Date	
appeared Thomas Arrh evidence) to be the acknowledged to me that	enius, personally known person whose name is at he/she executed the sa instrument, the person o	, Notary Public, to me (or proved on the basis of subscribed to the within insteme in his/her authorized capacity or the entity upon behalf of which	f satisfactory rument and r, and that by
WITNESS my han	d and official seal.		
[SEAL]	Sigr	nature	
		NOTARY PUBLIC	
		bad, CA 92009	
Citizenship: People's F	Republic of China		
Inventor's signature		Date	
appeared Jie Fei Cher evidence) to be the acknowledged to me the his/her signature on the acted, executed the inst	ng, personally known to person whose name is at he/she executed the sa a instrument, the person of trument.	, Notary Public, me (or proved on the basis of subscribed to the within inst me in his/her authorized capacity or the entity upon behalf of which	satisfactory rument and r, and that by
WITNESS my han	d and official seal.		
[SEAL]	Sigr	nature	

Page 2 of 7

Full name of inventor: Ma	rk E. Wilson
Residence Address: 1171	N. Kalbaugh St., Ramona, CA 92065
Citizenship: United States	s of America
Inventor's signature	Date
appeared Mark E. Wilson evidence) to be the per acknowledged to me that h	before me,
WITNESS my hand a	nd official seal.
[SEAL]	Signature
	NOTARY PUBLIC
	ssy Serafimov Rue du Pont des Morts, 57000 Metz, France
	s of America
	Date
appeared Rossy Serafimore evidence) to be the per acknowledged to me that h	before me,, Notary Public, personally v, personally known to me (or proved on the basis of satisfactory son whose name is subscribed to the within instrument and se/she executed the same in his/her authorized capacity, and that by strument, the person or the entity upon behalf of which the personnent.
WITNESS my hand a	nd official seal.
(SEAL)	Signature

Page 3 of 7

Full pages of inventor. Manchine Nichinesta	
Full name of inventor: Masahiro Nishimoto	
Residence Address: 58-1-203 Chabatake, Susono-shi, Shizuoka	
Citizenship: Japan	
Inventor's signature Trasalic Prient Date 2004/9/	7
Witness signature <u>Matual Magain</u> Date <u>Sep. 7th</u> , 2	<u> </u>
Full name of inventor: David Mark Wallace	
Residence Address: 6448 Peinado Way, San Diego, CA 92121	
Citizenship: United States of America	
Inventor's signature Date	
On	f satisfactory trument and ⁄, and that by
[SEAL] Signature	

NOTARY PUBLIC

Docket Number: CH012-02.US

Page 4 of 7

Full name of inventor	Sovouthy Tith
Residence Address:	9494 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126
Citizenship: United	States of America
	Date
evidence) to be the acknowledged to me	before me,, Notary Public, personally <u>Tith</u> , personally known to me (or proved on the basis of satisfactory person whose name is subscribed to the within instrument and that he/she executed the same in his/her authorized capacity, and that by he instrument, the person or the entity upon behalf of which the person strument.
WITNESS my h	and and official seal.
[SEAL]	Signature
	NOTARY PUBLIC
Full name of inventor	Steve Joel Brown
	4737 Mt. Almagosa Dr., San Diego, CA 92111
Citizenship: United	States of America
Inventor's signature	Date
appeared Steve Joel evidence) to be the acknowledged to me his/her signature on acted, executed the i	before me,
[SEAL]	Signature

Page 5 of 7

Full name of inventor:	Charles Stanford Harmo	<u>n</u>	
Residence Address:	P.O. Box 676112, Rancho	Santa Fe, CA 92067	
Citizenship: United S	States of America		
Inventor's signature		Date	
satisfactory evidence) acknowledged to me) to be the person whose na that he/she executed the sa he instrument, the person	, Notary Public, persona y known to me (or proved on the basis ame is subscribed to the within instrument a ame in his/her authorized capacity, and that or the entity upon behalf of which the person	nc by
WITNESS my ha	and and official seal.		
[SEAL]	Sig	nature	
		NOTARY PUBLIC	
Full name of inventor:	Gary D. Lopaschuk		
		nton, Alberta, Canada, T6R 1H4	
Citizenship: Canadia	an		
		Date	
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Page 6 of 7

Full name of inventor:	Jason R. Dyck	
Residence Address: 37-52147 Range Road 231, Sherwood Park, Alberta, Canada,		
<u>8</u>	3B 1A4	
Citizenship: Canadia	<u>n</u>	
Inventor's signature _		Date
evidence) to be the acknowledged to me the his/her signature on the acted, executed the in	person whose name hat he/she executed the ne instrument, the pers	, Notary Public, personally on to me (or proved on the basis of satisfactory ie is subscribed to the within instrument and ne same in his/her authorized capacity, and that by son or the entity upon behalf of which the person
[SEAL]		Signature

NOTARY PUBLIC

Docket Number: CH012-02.US

Page 7 of 7

ASSIGNMENT

WE have invented certain new and useful improvements for which WE have executed a patent application entitled "METHODS FOR TREATING METABOLIC DISEASES USING MALONYL-CoA DECARBOXYLASE INHIBITORS", in the United States, which:

Is filed herewith, and WE hereby authorize the assignee below to add the serial number assigned to this application, when assigned, without our reexecution or reassignment.

X Was filed on August 19, 2003 under 35 USC 371(c) and bears the application number 10/468,378 and claiming priority to US application number 60/270,034 filed February 20, 2001 and PCT application number PCT/US02/04729 filed February 19, 2002.

In consideration of the sum of One Dollar (\$1.00) and other good, valuable consideration, the receipt of which is hereby acknowledged, we, the inventors and Assignors, hereby acknowledge for ourselves and for our heirs, legal representatives and assigns that:

As of the filing date of the earliest described application above, WE have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said Chugai Seiyaku Kabushiki Kaisha (also known as Chugai Pharmaceutical Company, Limited), having an office at 1-9, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8301, Japan, a statutory address of 5-1, Ukima 5-chome, Kita-ku, Tokyo 115-8543, Japan, and a mailing address of 6225 Nancy Ridge Dr., San Diego, California 92121, its successors, legal representatives and assigns, (the ASSIGNEE) the entire right, title, and interest throughout the world in this invention, its improvements and that application for United States Patent executed by us, and all divisions, renewals, continuations and continuations-in part thereof, and any patents, inventor's certificate or like rights of exclusion granted therefrom and all reissues and extensions thereof, and all rights of priority under 35 USC 119(e)(1) and under International Conventions, including but not limited to 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 patent applications hereafter filed for said improvements in any other country or countries, and any patents, inventor's certificate or like rights of exclusion granted therefrom, and all extensions, renewals and reissues thereof.

The Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents, is to issue all Letters Patent for said improvements to the assignee in accordance with the terms of this instrument.

The Assignee can apply in any or all countries in our names or in its own name for patents, inventor's certificates, or like rights of exclusion for said inventions and improvements; and WE agree without further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Agreement.

WE will communicate to ASSIGNEE all facts known to us concerning said inventions and improvements, and to testify in any legal proceeding, sign all lawful papers, execute all continuation, division, continuation-in-part and reissue applications, make all rightful oaths, and to perform any other reasonable and lawful act to assist ASSIGNEE in obtaining full protection and title in and to said inventions and improvements in all countries.

Page 1 of 7

Full name of inventor:	Thomas Arrhenius			
Residence Address: 12	2744 Via Esperia, Del	Mar, CA 92014		
Citizenship: <u>Sweden</u>				
Inventor's signature			Date	
evidence) to be the acknowledged to me that	person whose name at he/she executed the e instrument, the perso	is subscribed same in his/her	Notary Public, personally byed on the basis of satisfactory to the within instrument and authorized capacity, and that by upon behalf of which the persor	
WITNESS my han	d and official seal.			
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		NOTAF	RY PUBLIC	
Residence Address: 77	<u>'81 Paseo La Jolla, Ca</u>	arlsbad, CA 9200	09	
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Inventor's signature			Date	
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[SEAL]	;	Signature		
		NOTARY PUBLIC		

Full name of inventor: Ma	rk E. Wilson		
		nona, CA 92065	
Citizenship: United States	of America		
Inventor's signature		Date	
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WITNESS my hand a	nd official seal.		
[SEAL]	Si	gnature	
		NOTARY PUBLIC	
Full name of inventor: Ro	ssy Serafimov	·	
Residence Address: 14, R	lue du Pont des Mor	ts, 57000 Metz, France	
Citizenship: United States	of America		
Inventor's signature		Date	
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[SEAL]	Si	gnature	
		NOTARY PUBLIC	

Full name of inventor	: Masahiro Nishimoto	
Residence Address:	58-1-203 Chabatake, Susono-sł	ni, Shizuoka
Citizenship: <u>Japan</u>		
Inventor's signature		Date
evidence) to be the acknowledged to me	e person whose name is sub that he/she executed the same in the instrument, the person or the	, Notary Public, personally ne (or proved on the basis of satisfactory scribed to the within instrument and his/her authorized capacity, and that by e entity upon behalf of which the persor
WITNESS my h	and and official seal.	
[SEAL]	Signature	e NOTARY PUBLIC
Full name of inventor	·· David Mark Wallace	
		CA 92121
		O/(OZIZ)
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WITNESS my h	and and official seal.	
[SEAL]	Signature	e

Docket Number: CH012-02.US
Full name of inventor: Sovouthy Tith
Residence Address: 9494 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126
Citizenship: United States of America
Inventor's signature Date May 20, 2004
On S/20104 before me, HALLS. KNOW, Notary Public, personal appeared Sovouthy Tith, personally known to me (or proved on the basis of satisfacted evidence) to be the person whose name is subscribed to the within instrument a acknowledged to me that he/she executed the same in his/her authorized capacity, and that his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.
Signature HAL L. S. KWOK COMM. #1294710 NOTARY PUBLIC SAN DIEGO COUNTY Commission Expires Feb. 20, 2005
Full name of inventor: Steve Joel Brown
Residence Address: 4737 Mt. Almagosa Dr., San Diego, CA 92111
Citizenship: United States of America
Inventor's signature Date
On
WITNESS my hand and official seal.
[SEAL] Signature

Page 5 of 7

Full name of inventor: Charles Stanford Harmon				
	P.O. Box 676112, Ranch			
	States of America			
Inventor's signature		Date		
satisfactory evidence acknowledged to me his/her signature on acted, executed the	before me,	name is subscribed to same in his/her author	the within instrument and ized capacity, and that by	
[SEAL]	S	Signature		
	r: <u>Gary D. Lopaschuk</u>			
	9 Promontory Point, Edm			
	ian			
Inventor's signature		Date		
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WIINESS my h	nand and official seal.			
[SEAL]	s	gnature		

Page 6 of 7

Full name of inventor: <u>Jason</u>	R. Dyck			
Residence Address: 37-5214	7 Range Road 231, S	nerwood Park, Albert	ta, Canada,	
8B 1A4				
Citizenship: Canadian				
Inventor's signature				
Onbe appeared <u>Jason R. Dyck,</u> pe evidence) to be the persor acknowledged to me that he/s his/her signature on the instrumer acted, executed the instrumer	ersonally known to me n whose name is su the executed the same ument, the person or t	e (or proved on the ubscribed to the windering in his/her authorized	basis of satisfactory ithin instrument and capacity, and that by	
WITNESS my hand and	official seal.			
[SEAL]	Signatı	ıre		
		NOTARY PUBLIC		

ASSIGNMENT

WE have invented certain new and useful improvements for which WE have executed a patent application entitled "METHODS FOR TREATING METABOLIC DISEASES USING MALONYL-COA DECARBOXYLASE INHIBITORS", in the United States, which:

Is filed herewith, and WE hereby authorize the assignee below to add the serial number assigned to this application, when assigned, without our reexecution or reassignment.

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As of the filing date of the earliest described application above, WE have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said Chugai Seiyaku Kabushiki Kaisha (also known as Chugai Pharmaceutical Company, Limited), having an office at 1-9, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8301, Japan, a statutory address of 5-1, Ukima 5-chome, Kita-ku, Tokyo 115-8543, Japan, and a mailing address of 6225 Nancy Ridge Dr., San Diego, California 92121, its successors, legal representatives and assigns, (the ASSIGNEE) the entire right, title, and interest throughout the world in this invention, its improvements and that application for United States Patent executed by us, and all divisions, renewals, continuations and continuations-in part thereof, and any patents, inventor's certificate or like rights of exclusion granted therefrom and all reissues and extensions thereof, and all rights of priority under 35 USC 119(e)(1) and under International Conventions, including but not limited to 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 patent applications hereafter filed for said improvements in any other country or countries, and any patents, inventor's certificate or like rights of exclusion granted therefrom, and all extensions, renewals and reissues thereof.

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The Assignee can apply in any or all countries in our names or in its own name for patents, inventor's certificates, or like rights of exclusion for said inventions and improvements; and WE agree without further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Agreement.

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Page 1 of 7

Full name of inventor:	Thomas Arrhenius	
Residence Address: 12	744 Via Esperia, Del Mar, C	A 92014
Citizenship: Sweden		
Inventor's signature		Date
evidence) to be the packnowledged to me that	person whose name is su at he/she executed the same instrument, the person or the	, Notary Public, personally ne (or proved on the basis of satisfactory bscribed to the within instrument and in his/her authorized capacity, and that by ne entity upon behalf of which the persor
WITNESS my han	d and official seal.	
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		NOTARY PUBLIC
Full name of inventor:	Jie Fei Chena	
		, CA 92009
		Date
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WITNESS my hand	d and official seal.	
[SEAL]	Signatu	re

Full name of inventor: Ma	ark E. Wilson		
Residence Address: 117	N. Kalbaugh St., Ramon	a, CA 92065	
Citizenship: <u>United State</u>	s of America		
Inventor's signature		Date	
appeared <u>Mark E. Wilsor</u> evidence) to be the pe acknowledged to me that t	 personally known to r rson whose name is s ne/she executed the sam astrument, the person or 	, Notary Public, positione (or proved on the basis of same subscribed to the within instrumentally in the entity upon behalf of which the	atisfactory ment and and that by
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		7000 Metz, France	
		Date	
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WITNESS my hand a	and official seal.		
[SEAL]	Signa	ture	

Full name of inventor: <u>Masahiro Nishimoto</u>				
Residence Address:	58-1-203 Chabatake, Susono-	shi, Shizuoka		
Citizenship: Japan				
Inventor's signature		Date		
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[SEAL]	Signati	ıre		
		NOTARY PUBLIC		
Full name of inventor:	David Mark Wallace			
Residence Address:	<u>6448 Peinado Way, San Diego</u>	o, CA 92121		
Citizenship: United S	States of America			
Inventor's signature		Date		
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Page 4 of 7

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Full name of inventor: Sovouthy Tith Residence Address: 9494 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126				
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Inventor's signature				
inventor a signature				
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[SEAL]	Signature NOTARY PUBLIC			
	el Brown			
	magosa Dr., San Diego, CA 92111			
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Inventor's signature	Date			
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WITNESS my hand and offi	cial seal.			
[SEAL]	Signature			
	NOTARY PUBLIC			

Page 5 of 7

Docket Number: CH012-02.US Full name of inventor: Charles Stanford Harmon Residence Address: P.O. Box 676112, Rancho Santa Fe, CA 92067 Citizenship: United States of America Inventor's signature Date _____before me, _____, Notary Public, personally appeared Charles Stanford Harmon, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. Signature____ [SEAL] **NOTARY PUBLIC** Full name of inventor: Gary D. Lopaschuk Residence Address: 9 Promontory Point, Edmonton, Alberta, Canada, T6R 1H4 Citizenship: Canadian Inventor's signature ___ Laine M. Woollard On MAY 13 2004 before me, ______ before me, ______ Public Public, personally appeared Gary D. Lopaschuk, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal.

NOTARY PUBLIC

Laine M. Woollard Barrister and Solicitor, Notary Public

Signature

[SEAL]

Full name of inventor:	Jason R. Dyck			
Residence Address: 37-	52147 Range Road 231,	Sherwood Park, Alberta	a, Canada,	
<u>8B</u>	1A4			
Citizenship: Canadian				
Inventor's signature				
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WITNESS my hand	and official seal.			
[SEAL]	Signa	ture		
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Page 1 of 7

Full name of inventor: Thomas Arrhenius Residence Address: 12744 Via Esperia, Del Mar, CA 92014 Citizenship: Sweden Inventor's signature _____ Date____ On _______before me, ______, Notary Public, personally appeared Thomas Arrhenius, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL] Signature____ NOTARY PUBLIC Full name of inventor: Jie Fei Cheng Residence Address: 7781 Paseo La Jolla, Carlsbad, CA 92009 Citizenship: People's Republic of China Inventor's signature _____ Date____ On _______before me, ______, Notary Public, personally appeared Jie Fei Cheng, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL]

Docket Number: CH012-02.US

Signature

Full name of inventor:	Mark E. Wilson		
Residence Address: 1	17 N. Kalbaugh St., Ra	amona, CA 92065	
Citizenship: United St	ates of America		
Inventor's signature _		Date_	
evidence) to be the acknowledged to me th	person whose name at he/she executed the e instrument, the pers	e is subscribed to t e same in his/her authe	otary Public, personally in the basis of satisfactory he within instrument and orized capacity, and that by behalf of which the persor
WITNESS my har	nd and official seal.		
[SEAL]	;	Signature	
		NOTARY PL	JBLIC
Full name of inventor:	Rossy Serafimov		
Residence Address: 1			
Citizenship: <u>United St</u>			
Inventor's signature _		Date_	
evidence) to be the acknowledged to me th his/her signature on th acted, executed the ins	person whose name at he/she executed the e instrument, the persetrument.	e is subscribed to t esame in his/her auth	otary Public, personally on the basis of satisfactory he within instrument and orized capacity, and that by behalf of which the persor
WITNESS my har	nd and official seal.		
[SEAL]	;	Signature	
	NOTARY PUBLIC		

Full name of inventor: M	lasahiro Nishimoto	
Residence Address: 58-	1-203 Chabatake, Susono-shi, S	hizuoka
Citizenship: Japan		
Inventor's signature		Date
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[SEAL]	Signature	
	NC	OTARY PUBLIC
Full name of inventor: D	David Mark Wallace	
	8 Peinado Way, San Diego, CA	
Citizenship: United State	es of America	
Inventor's signature		Date
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WITNESS my hand	and official seal.	
[SEAL]	Signature	

Docket Number: CH012-02.L	;
Full name of inventor:	ovouthy Tith
Residence Address: 94	4 Carroll Canyon Rd., Apt. #122, San Diego, CA 92126
Citizenship: United Sta	es of America
Inventor's signature	Date
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WITNESS my hand	and official seal.
[SEAL]	Signature
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	teve Joel Brown 7 Mt. Almagosa Dr., San Diego, CA 92111
	es of America
<u>-</u>	Date
appeared Steve Joel Brevidence) to be the packnowledged to me the his/her signature on the acted, executed the inst	
WITNESS my hand	and oπicial seal.
[SEAL]	Signature

Page 5 of 7

Full name of inventor: Charles Stanford Harmon Residence Address: P.O. Box 676112, Rancho Santa Fe, CA 92067 Citizenship: United States of America Inventor's signature					
Citizenship: United States of America Inventor's signature	Full name of inventor: Charles Stanford Harmon				
Onbefore me,, Notary Public, person appeared Charles Stanford Harmon, personally known to me (or proved on the basis satisfactory evidence) to be the person whose name is subscribed to the within instrument and the satisfactory evidence.	Residence Address: P.	O. Box 676112, Rancho Sant	ta Fe, CA 92067		
Onbefore me,, Notary Public, person appeared Charles Stanford Harmon, personally known to me (or proved on the basis satisfactory evidence) to be the person whose name is subscribed to the within instrument a	Citizenship: United Sta	ites of America			
satisfactory evidence) to be the person whose name is subscribed to the within instrument	Inventor's signature _		Date		
satisfactory evidence) to be the person whose name is subscribed to the within instrument					
his/her signature on the instrument, the person or the entity upon behalf of which the per acted, executed the instrument.	satisfactory evidence) to acknowledged to me that his/her signature on the	be the person whose name in the same in the same in the same in the same in the person or the	is subscribed to the within instrument a in his/her authorized capacity, and that		
WITNESS my hand and official seal.	WITNESS my han	d and official seal.			
[SEAL] Signature	[SEAL]	Signatur	re		
NOTARY PUBLIC		-	NOTARY PUBLIC		
Full name of inventor: Gary D. Lopaschuk	Full name of inventor:	Gary D. Lopaschuk			
Residence Address: 9 Promontory Point, Edmonton, Alberta, Canada, T6R 1H4					
Citizenship: Canadian		·			
Inventor's signature Date					
Onbefore me,, Notary Public, person appeared Gary D. Lopaschuk, personally known to me (or proved on the basis of satisfact evidence) to be the person whose name is subscribed to the within instrument acknowledged to me that he/she executed the same in his/her authorized capacity, and that his/her signature on the instrument, the person or the entity upon behalf of which the per acted, executed the instrument. WITNESS my hand and official seal.	appeared Gary D. Lopa evidence) to be the acknowledged to me the his/her signature on the acted, executed the instantial executed the executed the instantial executed the execut	schuk, personally known to me person whose name is substant he/she executed the same is instrument, the person or the trument.	ne (or proved on the basis of satisfact bscribed to the within instrument a in his/her authorized capacity, and that		
[SEAL] Signature	ISENII	Signatur	r o		

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Residence Address: 37-52147 Range Road 231, Sherwood Park, Alberta, Canada,

8B 1A4

Citizenship: Canadian

Inventor's signature

On MAY 65 Lower before me, appeared Jason R. Dyck, personally known to me (or proved on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Signature (NOTARY PUBLIC

Laine M. Woollard

Earricter and Solicitor, Notary Public

RECORDED: 09/20/2004