PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT						
NATURE OF CONVEYANCE:			ASSIGNMENT					
CONVEYING PARTY DATA								
Name			lame	Execution Date				
Won-Ki Jeong				02/04/2008				
Ross Whitaker	02/04/2008							
University of Utah	02/07/2008							
RECEIVING PARTY DATA								
Name: Street Address:			Research Foundation					
		615 Arapeen Dr., Suite 310						
City: State/Country:		Salt Lake City						
Postal Code:	84108							
Fostal Code.	04100							
PROPERTY NUMBER	RS Total: 1							
Property Type			Number					
Application Number: 1274		12740	Number					
CORRESPONDENCE	DATA							
	(004)50	0 0750						
Fax Number:	(801)56 he sent via US		hen the fax attempt is unsuccessful.					
Phone:	801-566							
Email: halterman@tnw.com								
Correspondent Name: THORPE NORTH & WESTERN, LLP.								
	Address Line 1: P.O. Box 1219							
Address Line 4:	SANDY	, UTAH	184091-1219					
ATTORNEY DOCKET NUMBER:			00846-U4335.PROV.PCT.US					
NAME OF SUBMITTER:			Steve M. Perry					
Total Attachments: 8 source=00846-U4335PROVPCTUS-Assignment#page1.tif								
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WHEN RECORDED RETURN TO:

US PATENT APPLICATION ATTORNEY DOCKET NO. 00846-U4335.NP

Steve M. Perry THORPE NORTH & WESTERN, LLP P.O. BOX 1219 SANDY, UTAH 84091-1219

ASSIGNMENT

WHEREAS, We,

	Won-Ki Jeong			
Residence:	Salt Lake City, Utah			
Post Office Address:	750 University Village			
	Salt Lake City, UT 84108			

	Ross Whitaker		
Residence:	Salt Lake City, Utah		
Post Office Address:	937 E. 2 nd Avenue		
	Salt Lake City, UT 84103		

(hereinafter "Assignors") have invented a certain new and useful improvement in a FAST ITERATIVE METHOD FOR PROCESSING HAMILTON-JACOBI EQUATIONS for which a non-provisional application for United States Letters Patent was filed on <u>April 27, 2010</u> as THORPE NORTH & WESTERN, LLP Docket No. 00846-U4335.NP, and given U.S. Patent Application Serial No. <u>12/740,061</u>; and

WHEREAS, University of Utah, an institution of higher education and a nonprofit organization organized and existing under the laws of the State of Utah, located at 615 Arapeen Dr., Suite 310, Salt Lake City, UT 84108 (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the same;

NOW, THEREFORE, in consideration of one dollar (\$1.00) and other good and valuable consideration paid to us by the Assignee, the receipt and sufficiency whereof is hereby acknowledged, we the said Assignors, hereby grant and assign unto the said Assignee, our entire right, title and interest in said invention and in all patent applications based thereon, including but not limited to the above identified United States Patent Application and in all nonprovisionals, divisions, continuations, and continuations-in-part of said application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and foreign countries; the right, power and authority to file and prosecute U.S.

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and foreign patent applications on said invention, and to do so in its own name wherever such right may be legally exercised, and including the right to claim the priority and benefits of the International Convention for such applications; and the right to bring actions for infringement of any right in said invention in its own name, including past infringement, in any jurisdiction.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all Letters Patent on said invention to the said Assignee as the owner of our entire interest, for the sole use and behoof of the said Assignee, its successors, assigns and legal representatives, 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 us had this assignment and sale not been made.

We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of us to make this Assignment fully effective, including, by way of example but not of limitation, the following: prompt execution of all original, nonprovisional, divisional, substitution, reissue, and other United States and foreign patent applications on said invention, and all lawful documents as requested by the Assignee to further the prosecution of any of such patent applications; cooperation to the best of our ability including, but not limited to, the execution of all lawful documents, the production of evidence in any actions or proceedings concerning the invention, including, but not limited to, nullification, reissuing, extension, and infringement proceedings involving said invention.

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This assignment and agreement shall be binding upon our heirs and legal representatives.

Signed at Selt Lake Cit	L'UT,	this	$\frac{4}{4}$ day of	February,	W08.
city, state, coun	try (if not USA)	. (day	month	year
	Sig	ned:	/N	· m]	
		Won	-Ki Jeong		
STATE OF UTAH)				
County of SALT LAKE	:ss)				

Before me personally appeared Won-Ki Jeong and acknowledged the foregoing instrument to be his/her free act and deed this 4th day of Feg., 2008.

Notary Public



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this $\frac{4}{day}$ day of $\frac{feb}{month}$, Signed at <u>SelfLale (ity</u>, UT city, state, country (if not USA) Zoro § year Signed: Ross Whitaker

STATE OF ()TAH :ss County of SALT LAKE)

Before me personally appeared Ross Whitaker and acknowledged the foregoing instrument to be his/her free act and deed this $\underline{4_{TH}}$ day of $\underline{F_{EB}}$, 2008.

Notary Public

document in prolaw



PATENT REEL: 024901 FRAME: 0864

Steve M. Perry THORPE NORTH & WESTERN, LLP P.O. BOX 1219 SANDY, UTAH 84091-1219

ASSIGNMENT

WHEREAS, the **University of Utah** (an institution of higher education and a nonprofit organization, organized and existing under the laws of the State of Utah, located at Salt Lake City, Utah) (hereinafter "Assignor") is the owner of an FAST ITERATIVE METHOD FOR PROCESSING HAMILTON-JACOBI EQUATIONS for which a United States Patent Application was filed on <u>April</u> <u>27, 2010</u> as THORPE NORTH & WESTERN, LLP Docket No. 00846-U4335.NP, and given U.S. Patent Application Serial No. <u>12/740,061</u>; and

WHEREAS, the University of Utah Research Foundation, a Non-Profit Corporation organized and existing under the laws of the State of Utah, located at 615 Arapeen Dr., Suite 310, Salt Lake City, UT 84108 (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the same;

NOW, THEREFORE, in consideration of one dollar (\$1.00) and other good and valuable consideration paid to us by the Assignee, the receipt and sufficiency whereof is hereby acknowledged, we the said Assignors, hereby grant and assign unto the said Assignee, our entire right, title and interest in said invention and in all patent applications based thereon, including but not limited to the above identified United States Patent Application and in all divisions, continuations, and continuations-in-part of said application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and foreign countries; the right, power and authority to file and prosecute U.S. and foreign patent applications on said invention in its own name, wherever

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such right may be legally exercised, and including the right to claim the priority and benefits of the International Convention for such applications; and the right to bring actions for infringement of any right in said invention in its own name, including past infringement, in any jurisdiction.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all Letters Patent on said invention to the said Assignee as the owner of our entire interest, for the sole use and behoof of the said Assignee, its successors, assigns and legal representatives, 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 us had this assignment and sale not been made.

We hereby agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of us to make this Assignment fully effective, including, by way of example but not of limitation, the following: prompt execution of all original, divisional, substitution, reissue, and other United States and foreign patent applications on said invention, and all lawful documents as requested by the Assignee to further the prosecution of any of such patent applications; cooperation to the best of our ability including, but not limited to, the execution of all lawful documents, the production of evidence in any actions or proceedings concerning the invention, including, but not limited to, nullification, reissuing, extension, and infringement proceedings involving said invention.

This assignment and agreement shall be binding upon our heirs and legal representatives.

PATENT REEL: 024901 FRAME: 0866

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Assignment **US** Patent Application Attorney Docket No. 00846-U4335.NP

Executed this 7th day of February, 2008, at Salt Lake City, 1th (place).

UNIVERSITY OF UTAH

By RKKulkarm

Rajiv Kulkarni Sr. Technology Licensing Manager

STATE OF UTAH) : ss County of Salt Lake)

Before me personally appeared Rajiv Kulkarni who is the Sr. Technology Licensing Manager

of the University of Utah and duly acknowledged to me that he signed this instrument on behalf of the

University of Utah this 7th day of *Ichnuary*, 2008.



<u>Salbaugh</u> Notary Public

MEMORANDUM

Date: 27 August 2003

To: Rajiv K. Kulkarni, Senior Technology Licensing Manager, Technology Transfer Office

From: Ray Gesteland, Vice President for Research, University of Utah President, University of Utah Research Foundation

Subject: Delegation of Signatory Authority

This Memorandum confirms the continuing authorization, granted you since 17 September 2001, to execute and sign documents on behalf of the University of Utah and the University of Utah Research Foundation for patent documents, confidential disclosure agreements and biological and materials transfer agreements.

F. Gesteland, Ph.D. Raymond

Vice President for Research University of Utah

President University of Utah Research Foundation

University of Utah Research Foundation 201 S PRESIDENTS CIRCLE RM 210 SALT LAKE CITY, UTAH 84112-9011

> (801) 581-7236 FAX (801) 585-6212

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RECORDED: 08/27/2010