PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Wayne Ronald Raiford	10/11/2012
Sue-Jane Lee	10/09/2012
Martin Joseph Crnkovich	11/20/2012
Robert E. Hassard	11/05/2012

RECEIVING PARTY DATA

Name:	Fresenius Medical Care Holdings, Inc.	
Street Address:	920 Winter Street	
City:	Waltham	
State/Country:	MASSACHUSETTS	
Postal Code:	02451-1457	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13630123

CORRESPONDENCE DATA

Fax Number: 8777697945

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

Phone: (617) 542-5070

Email: apsi@fr.com

Correspondent Name: Jeffrey D. Weber

Address Line 1: FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER: 18196-0162001

NAME OF SUBMITTER: Matthew G. Doherty

Total Attachments: 5

PATENT REEL: 029641 FRAME: 0751 H \$40 00 1363

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> PATENT REEL: 029641 FRAME: 0752

<u>ASSIGNMENT</u>

For valuable consideration, we, Wayne Ronald Raiford, of 112 Auden Street, Vallejo, CA 94591-5715; Sue-Jane Lee, of 45720 Tuscany Court, Fremont, CA 94539, Martin Joseph Crnkovich, of 3436 Cassena Drive, Walnut Creek, CA 94598; and Robert E. Hassard, of 1620 Shirley Drive, Benicia, CA 94510; hereby assign to FRESENIUS MEDICAL CARE HOLDINGS, INC., a corporation of New York, having a place of business at 920 Winter St., Waltham, MA 02451-1457, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled METHODS OF MAKING MEDICAL SOLUTIONS AND RELATED SYSTEMS, filed September 28, 2012, and assigned U.S. Serial Number 13/630,123, this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under 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 we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Wayne Ronald Raiford 10-11-12 Date			
Acknowledgment			
State of California			
County of Carta Casa			
On Other 1/202 before me, Tabere T. Constantenne, Natural Palice. (insert name and title of the officer)			
personally appeared Wayne Ronald Raiford who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.			
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.			
WITNESS my hand and official seal, Signature Across the following the seal of			

Sue-Jane Lee 10/9/2012 Date		
Acknowledgment		
State of California		
County of Contra Costa		
On Otober 9th, 202 before me, Jabora T. Constitutionia, Notary Public . (insert name and title of the officer)		
personally appeared <u>Sue-Jane Lee</u> who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/sho/they executed the same in his/he/their authorized capacity(ies), and that by his/heir/signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.		
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.		
WITNESS my hand and official seal. Signature Comm. #1948003 Notary Public - California Contra Costa County My Comm. Expires Aug. 13, 2015		

Martin Joseph Crnkovich	//20/20/2 Date		
Acknowledgment State of California			
County of Costa Cata			
On Notember , SOIZ before me. 1400 (insert no	Coortintennia Notag Riduc.		
personally appeared Martin Joseph Crnkovich who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s)(s)/are subscribed to the within instrument and acknowledged to me that no/she/they executed the same in (h)s/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.			
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.			
WITNESS my hand and official seal. Signature (Scar)	TABORA T. CONSTANTENNIA, COMM. n1948003 Notary Public - California Contra Costa County My Comm. Expires Aug. 13, 2015		

Robert E. Hassard #1/5/12 Date		
Acknowledgment		
State of California		
County of Contra Costs		
On November 55, 2012 before me, John T. Candentonia, Notacy Ridic. (insert name and title of the officer)		
personally appeared Robert E. Hassard who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) (s) are subscribed to the within instrument and acknowledged to me that has she/they executed the same in (iis/her/their authorized capacity(ies), and that by (her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.		
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.		
WITNESS my hand and official seal. TABORA T. CONSTANTENNIA. COMM. #1948009 2 Notary Public • California Contra Costa County My Comm. Expires Aug. 13, 2015		

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