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

RECORDATION FORM COVER SHEET PATENTS ONLY	
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.	
1. Name of conveying party(les)	2. Name and address of receiving party(ies) Name: THORATEC CORPORATION
SEE ATTACHED .	Internal Address:
Additional name(s) of conveying party(les) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) SEE ATTACHED	Street Address: 6101 Stoneridge Drive
Assignment Merger Security Agreement Change of Name	City: Pleasanton
Joint Research Agreement Government Interest Assignment	State: <u>CA</u> Country: <u>US</u> Zip: <u>94588</u>
Executive Order 9424, Confirmatory License Other	Additional name(s) & address(es) attached? Yes No
	document serves as an Oath/Declaration (37 CFR 1.63).
A. Patent Application No.(s)	B. Patent No.(s)
13/802,570 Additional numbers at	tached? Yes No
5. Name and address to whom correspondence	6. Total number of applications and patents
concerning document should be mailed:	involved:
Name: Knobbe Martens Olson & Bear LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address:	, , , , , , , , , , , , , , , , , , , ,
	Authorized to be charged to deposit account
Street Address: 2040 Main Street	Enclosed
	None required (government interest not affecting title)
City: Irvine	8. Payment Information
State: CA Zip: 92614	
Phone Number: (949) 760-0404	Densel A 11-1410
Docket Number: THOR.090A	Deposit Account Number 11-1410
Email Address: efiling@knobbe.com	Authorized User Name Knobbe Martens Olson & Bear LLP
9. Signature: /Paul Stellman/	June 25, 2013
Signature	Date
Paul Stellman	Total number of pages Including cover sheet, attachments, and documents:
Name of Person Signing Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mell Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450	

RECORDATION FORM COVERSHEET (Attachment)

U.S. Patent Application No. 13/802,570, Filed March 13, 2013

Attorney Docket No.: THOR.090A

- 1. Name of conveying party(ies):
 - 1. Zijing Zeng
 - 2. Phyllis Yuen
 - 3. Michael R. Butler
- 3. Nature of conveyance/Execution Date(s):
 - 1. May 22, 2013
 - 2. May 31, 2013
 - 3. May 24, 2013

15672489 062513

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: THOR.090A Page 1 of 5

Title: IMPELLER FOR CATHETER PUMP

Inventors: Zijing Zeng, Phyllis Yuen, Michael R. Butler

Declaration

This Declaration is directed to the application identified above that:

Was filed March 13, 2013 as U.S. Patent Application No. 13/802,570 and incorporating any amendments made thereto prior to the signature date of this Declaration.

As a named inventor, I declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

Assignment from Inventors

WHEREAS, above-identified Inventors (Individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental designs, or discoveries, and hereby assign or are under an obligation to assign to the below identified Assignee the above-titled application (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States (Identified above) has been prepared for filing with the United States Patent and Trademark Office (hereinafter the "Application").

AND WHEREAS, Thoratec Corporation, with its principal place of business at 6101 Stoneridge Drive, Pleasanton, California 94588 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all patent properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

all provisional applications relating thereto (including but not limited to U.S. Provisional Application Nos. 61/646,827, filed May 14, 2012, and 61/667,875, filed July 3, 2012):

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, Including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: THOR.090A Page 2 of 5

Title: IMPELLER FOR CATHETER PUMP

Inventors: Zijing Zeng, Phyllis Yuen, Michael R. Butler

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned patent properties, and authorizes and requests 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 on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work In all countries.

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Docket No.: THOR.090A Page 3 of 5

Title: IMPELLER FOR CATHETER PUMP

Inventors: Zijing Zeng, Phyilis Yuen, Michael R. Butler

Legal Name of inventor: Zijing Zeng

Inventor Signature:

Witnessed by:

1 R.SHWIL

Mani

Witness Name (printed):

Witnessed by:

Witness Name (printed):

PATENT

REEL: 030696 FRAME: 0686

Date: 5/31/2013

COMBINED DECLARATION & ASSIGNMENT (37 CFR 1.63(e))

Application Data Sheet filed previously or concurrently

Page 4 of 5 Docket No.: THOR,090A

Title: IMPELLER FOR CATHETER PUMP

Inventor Signature:

inventors: Zijing Zeng, Phyllis Yuen, Michael R. Butler

Legal Name of Inventor: Phyllis Yuen

Witnessed by:

Witnessed by:

Witness Name (printed): hozaoraco

Witness Name (printed):

Application Data Sheet filed previously or concurrently

KMOB SF

Docket No.: THOR.090A

Page 5 of 5

Title: IMPELLER FOR CATHETER PUMP

inventors: Zijing Zeng, Phyllis Yuen, Michael R. Butler

Legal Name of Inventor: Michael R. Butter

Inventor Signature:

Witnessed by:

Witness Name (printed):

Witnessed by:

Witness Name (printed):

Date:-

5/24/20

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PATENT REEL: 030696 FRAME: 0688

RECORDED: 06/25/2013