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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PART	Υ DATA	·			
		Name		Execution Date	
ZIJING ZENG				05/27/2015	
PHYLLIS YUEN				05/27/2015	
MICHAEL R. BUTLE	R			05/27/2015	
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DATE SIGNED:		07/31/2017			
source=ASSIGNMEN <sup>-</sup>	T-INVENTOF T-INVENTOF	RS-THORATEC-14401096-2645 RS-THORATEC-14401096-2645 RS-THORATEC-14401096-2645	1366#page2.t	if	

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## ASSIGNMENT

WHEREAS, Zijing Zeng, residing in Sunnyvale, CA, Phyllis Yuen, residing in Fremont, CA, and Michael R. Butler, residing in Dublin, CA, (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to IMPELLER FOR CATHETER PUMP (collectively hereinafter referred to as the "Work") for which an application for Letters Patent in the United States has been prepared for filing (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, THORATEC CORPORATION, having an address at 6101 Stoneridge Drive, Pleasanton, CA 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, the receipt of which 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 provisional applications relating thereto (including but not limited to U.S. Provisional Application No(s). 61/646,827; and 61/667,875, filed May 14, 2012; and July 3, 2012, respectively), and all nonprovisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, 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; and ASSIGNOR hereby 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 provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, authorize the filing of and 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.

PATENT REEL: 0**35726** FRAME: 061**8** 

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Legal	Name	of	inventor:	Zijing	Zeng
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Inventor Signature:	Witnessed by: Witness Name (printed):	Date: May/27/2015 Perman A. Alvarez
	Witnessed by: Witness Name (printed):	CHRESTOPHER DAPTEL GUILCHET

Legal Name of invente	or: Phyllis Yuen		
Inventor Signature:	- Tan D	Date:	05/27/15
	Witnessed by:	John Min	
	Witness Name (printed):	TOOS JENKINS	
	Witnessed by: Witness Name (printed):	MICHAEL BOTT	LCR

Application No.: 14/401,096 Filing Date: November 13, 2014

Legal Name of inventor: Michael R. Butler	
Inventor Signature:	Date: 5/27/2015
Witnessed by:	- Carpo
Witness Name (printed):	Phyllis Yuen
Witnessed by: Witness Name (printed):	Vernica Neiman

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