PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	EXECUTIVE ORDER 9424, CONFIRMATORY LICENSE

CONVEYING PARTY DATA

Name	Execution Date
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	08/03/2009

RECEIVING PARTY DATA

IIName:	National Institutes of Health (NIH), U.S. Dept. of Health and Human Services (DHHS), U.S. Government	
Street Address:	NIH Division of Extramural Inventions and Technology Resources (DEITR)	
Internal Address:	6705 Rockledge Drive, Suite 310, MSC 7980	
City:	Bethesda	
State/Country:	MARYLAND	
Postal Code:	20892-7980	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12121878

CORRESPONDENCE DATA

Fax Number: (301)480-0272

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

Email: edison@nih.gov

Correspondent Name: Director, DEITR

Address Line 1: NIH, 6705 Rockledge Drive, Suite 310

Address Line 2: MSC 7980

Address Line 4: Bethesda, MARYLAND 20892-7980

NAME OF SUBMITTER: Director, DEITR, NIH

Total Attachments: 1

source=12121878ca#page1.tif

PATENT 500928837 REEL: 023052 FRAME: 0858

CONFIRMATORY INSTRUMENT

Application for:

SYSTEMS AND METHODS FOR MODEL-BASED ESTIMATION OF

CARDIAC EJECTION FRACTION, CARDIAC CONTRACTILITY,

AND VENTRICULAR END-DIASTOLIC VOLUME

Inventor(s):

Thomas Heldt, Ramakrishna Mukkamala, Tushar Anil. Parlikar and

George C. Verghese

Serial Number:

12/121878

Filing Date:

5/16/2008

Grant No.:

5-R01-EB001659-05

Contractor:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Case No.:

12677

The invention identified above is a "Subject Invention" under Patent Rights clause included in 5-R01-EB001659-05 with the NIH.

This document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up license granted to the Government under this contract in this invention, patent application and any and all divisions or continuations, and any resulting patent or reissues which may be granted thereon, and of all other rights acquired by the Government by the referenced clause.

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

Signed this 3rd day of August, 2009.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Ву

Rolande Johndro

Patent Compliance Administrator

Technology Licensing Office

77 Massachusetts Avenue, Room NE25-230, Cambridge, MA 02139

PATENT REEL: 023052 FRAME: 0859

RECORDED: 08/05/2009