UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDTRONIC, INC., MEDTRONIC VASCULAR, INC., and MEDTRONIC COREVALVE, LLC
Petitioner

V.

TROY R. NORRED, M.D. Patent Owner

Case IPR2014-00395 Patent 6,482,228

DECLARATION OF STEPHEN J. LOMBARDO

NORRED EXHIBIT 2296 - Page 1 Medtronic, Inc., Medtronic Vascular, Inc., & Medtronic Corevalve, LLC v. Troy R. Norred, M.D. Case No. IPR2014-00395



- I, Stephen J. Lombardo, declare as follows:
- 1. I am a citizen of the United States and a resident of Columbia, Missouri. My post office address is the Department of Mechanical & Aerospace Engineering, University of Missouri, Columbia, Missouri 65211
- 2. I am currently employed as a Professor in the Mechanical and Aerospace Engineering Department at the University of Missouri.
- 3. From 1997 until 2003, I was employed as an Assistant Professor in the Chemical Engineering Department at the University of Missouri.
- 4. In spring 2000, while I was employed as an assistant professor in the Chemical Engineering Department at the University of Missouri, I was approached by Dr. Troy R. Norred about a project he was working on concerning a prosthetic aortic valve adapted for percutaneous placement.
- 5. Dr. Norred explained to me his ideas about prosthetic aortic valve adapted for percutaneous placement and we discussed if I could supply an engineering perspective on this. These discussions lead to the question of whether or not a prosthetic aortic valve could be held in place by a stent that was within the size range tolerated by the adult human anatomy without rupturing the aorta using mainly the frictional forces between the stent and the aorta. I indicated I could work on such a model if he provided me with detailed anatomical information.



6. Over a period of weeks, Dr. Norred and I spoke as I

gathered from him information about the aorta and the conditions within the

aorta that might affect the ability of a stent to anchor in place.

7. In early-to-mid June, 2000, I worked on developing initial

drafts of the model. The model addressed aspects of whether a prosthetic aortic

valve could be held in place by a stent that was within the size range tolerated by

the adult human anatomy. A copy of the model I provided to Dr. Norred is

Exhibit 2286. My handwritten notes are Exhibit 2219.

I hereby declare under the penalty of perjury under the laws of the United States

of America that the foregoing is true and accurate to the best of my knowledge

and understanding.

Dated: June 16, 2014 Steph J. Lombard