

## Accepted Manuscript

Title: What is needed to make cardiovascular models suitable for clinical decision support? A viewpoint paper

Author: Wouter Huberts Stefan G.H. Heinen Niek Zonnebeld  
Daniel A.F. van den Heuvel Jean-Paul P.M. de Vries Jan H.M.  
Tordoir D. Rodney Hose Tammo Delhaas Frans N. van de  
Vosse



PII: S1877-7503(17)30790-1  
DOI: <http://dx.doi.org/doi:10.1016/j.jocs.2017.07.006>  
Reference: JOCS 721

To appear in:

Received date: 30-1-2017  
Revised date: 6-7-2017  
Accepted date: 8-7-2017

Please cite this article as: Wouter Huberts, Stefan G.H. Heinen, Niek Zonnebeld, Daniel A.F. van den Heuvel, Jean-Paul P.M. de Vries, Jan H.M. Tordoir, D. Rodney Hose, Tammo Delhaas, Frans N. van de Vosse, What is needed to make cardiovascular models suitable for clinical decision support? A viewpoint paper, *Journal of Computational Science* (2017), <http://dx.doi.org/10.1016/j.jocs.2017.07.006>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Summary of the Curricula Vitae of all contributing authors

**W. Huberts (MSc, PhD)** is an assistant professor and qualified medical engineer in the Biomedical Engineering group, chaired by prof. Delhaas (Maastricht University Medical Center, MUMC+). The group is embedded in the CARIM School of Vascular Diseases ([www.carimmaastricht.nl](http://www.carimmaastricht.nl)). Dr. Huberts strongly collaborates with Eindhoven University of Technology (TU/e) in both research and education; and specifically with the Cardiovascular Biomechanics group, chaired by prof. van de Vosse. For these purposes, he visits the TU/e once a week. Dr. Huberts has significant experience in the development and application of patient-specific mathematical models in clinical studies and in applying uncertainty quantification and sensitivity analyses to cardiovascular models.

**S.G.H. Heinen (MSc, PDEng)** is a PhD candidate in the Biomedical Engineering group (BME), chaired by prof. Tammo Delhaas (Maastricht University Medical Centre, MUMC+), and researcher at the St. Antonius Hospital Nieuwegein at the department of surgery and radiology. His scientific activity is mainly devoted to improve the diagnosis of vascular diseases by implementation of new technological applications. He received both a master and a postdoctoral engineering degree (PDEng, two-years post-academic training) in Medical Engineering at the Eindhoven University of Technology (TU/e, the Netherlands).

**N. Zonnebeld (MD)** is PhD candidate at the department of Biomedical Engineering, and Vascular Surgery, both at the Maastricht University Medical Center+. His research focuses on vascular access surgery and he is the coordinating investigator of the multicenter RCT Shunt Simulation Study (3S). He received a MD degree in Medicine from the University of Maastricht, The Netherlands.

**D.A.F. van den Heuvel (MD)** is an Interventional Radiologist at the St. Antonius Hospital, Nieuwegein, The Netherlands. His research interests concern the endovascular treatment of peripheral arterial disease with a focus on critical limb ischemia. He received a MD degree in Medicine from the University of Amsterdam, The Netherlands.

**J.P.P.M. de Vries (MD, PhD)** is (endo)vascular surgeon and head of the department of Vascular Surgery of the St. Antonius Hospital Nieuwegein since August 2013. He is one of the founders of the Dutch Endovascular Alliance (DEALL), a multicentre Dutch research platform to perform dedicated (endo) vascular research. He is in the frontiers of new developments in endovascular aortic aneurysm repair and minimal invasive interventions for peripheral arterial disease.

**J.H.M. Tordoir (MD, PhD)** is a vascular surgeon and associate Professor of Surgery at the department of Surgery of the Maastricht University Medical Center and director of the Noninvasive Vascular Lab. In addition to vascular surgery, his specific interest is vascular access in dialysis patients. He is a member of the Dutch Working group on Vascular Access and cofounder and past president of the European Vascular Access Society. In concordance with a multidisciplinary expert group of nephrologists, surgeons and interventional radiologists, he was involved in the creation of European guidelines for Vascular Access.

**D.R. Hose (MSc, PhD, Prof)** is a mathematician and engineer and currently appointed as Professor of Computational Biomechanics in the Medical Physics Group in the Department of Cardiovascular Science of Sheffield University, the United Kingdom. Professor Hose his research interests are in the development of methods and workflows for the computational

Download English Version:

<https://daneshyari.com/en/article/6874424>

Download Persian Version:

<https://daneshyari.com/article/6874424>

[Daneshyari.com](https://daneshyari.com)