



<https://sano.science/>

Sano Computational Medicine Seminars

Monday, 25 October 2021, 14:00-15:30 (CEST)

Join us via Zoom: <https://seminar.sano.science/>

Rodney DR Hose

Emeritus Professor in the Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield, UK

Is there a role for simple physiological models in clinical decision support?

Abstract

All physiological models are simplifications of reality, but many models can be diagnostic and predictive and/or can improve our understanding of (patho)physiology. In this seminar I will review some of the challenges associated with personalisation and interpretation of local and systems models for the purposes of clinical decision support. Illustrations will include applications in:

- coronary Fractional Flow Reserve from angiographic images
- heart valve disease (the EurValve project)

Emphasis will be focused on the challenges of assimilation and interpretation of the data that is likely to be available in a normal clinical pathway, and on the computational challenges that might underpin model development and delivery.

Rod Hose is Emeritus Professor in the Department of Infection, Immunity and Cardiovascular Disease at the University of Sheffield. Prior to his retirement in 2020 he was concurrently Professor of Computational Cardiovascular Physiology in the Department of Circulation and Biomedical Engineering at NTNU in Trondheim. He has been associated with the Virtual Physiological Human (VPH) initiative since its inception, serving on the first Board of the VPH Institute. He has participated in several large international studies in this domain, including as Scientific Co-ordinator. His primary interests are in cardiovascular modelling, especially for coronary artery disease and for heart valve disease.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857533 and from the International Research Agendas Programme of the Foundation for Polish Science No MAB PLUS/2019/13.

