Digital twins of the cardiovascular and pulmonary systems

Created on: 05-05-2023 - Last modified on: 24-04-2024

Contact person

Benoit Haut

Organisation

Name of the organisation Université Libre de Bruxelles (ULB)

Department Ecole polytechnique de Bruxelles

Country Belgium

SCOPE OF THE METHOD

The Method relates to	Human health
The Method is situated in	Basic Research
Type of method	In silico

DESCRIPTION

Method keywords

computational model

blood circulation

hemodynamics

pulse wave velocity

stroke volume

pulmonary flow

nitric oxide

Scientific area keywords

Biomedical Engineering
Physiology

Method description

Digital twins of the cardiovascular and pulmonary systems, allowing the virtual simulation of various invasive or non-invasive measurements (cardiac output, ballistocardiography signal, blood pressure, pulse wave velocity, FeNO, DLNO, FEV1, etc.) on healthy or pathological subjects, of variable size.

Method status

History of use
Internally validated
Published in peer reviewed journal

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

Associated documents

BUESS - FRONTIERS.pdf
HAUT - FR.pdf
KARAMAOUN - FR.pdf
KARAMAOUN - JAP.pdf
KARAMAOUN - PLOS.pdf
RABINEAU - FR1.pdf

Coordinated by

sciensano VUB

Financed by

Vlaanderen verbeelding werkt

bruxelles environnement leefmilieu brussel .brussels