Monday September 26, 2016

Conference Opening		*Plenary room (Grote Zaal)*
08:50-09:00		
	Alfons Hoekstra	

Keynote I		*Plenary room (Grote Zaal)*
09:00-10:00		chair person – Alfons Hoekstra
Dutch Heart Foundation Lecture	Nic Smith	Multi-scale Computational Modelling of Coronary Blood Flow

Coffee/tea break
10:00-10:30

Computational Biomedicine		*Plenary room (Grote Zaal)*
10:30-12:30		chair person – Ed van Bavel
10.30-11.00 (invited)	Stephen Payne	Multi-scale modelling of cerebral blood flow
11.00-11.30 (invited)	Oliver Röhrle	The virtual skeletal muscle: A multi-physics and multi-scale challenge
11.30-11.50	Radomir Chabiniok	Cardiac Modeling for XMR stress in Fontan patients
11.50-12.10	Simao Laranjeira	Modelling ion transport in the brain after ischemic stroke
12.10-12.30	Daniel Abler	Mechanically-coupled Reaction-Diffusion model of Glioma Growth

Systems Medicine

10:30-12:30

Mauritszaal

chair person – Alejandro Frangi

10.30-11.00 (invited)	Helen Byrne	Modelling Blood Flow and Solute Transport in Solid Tumours
11.00-11.30 (invited)	Rudi Balling	Putting Parkinson´s disease on the map
11.30-11.50	Bernard de Bono	ApiNATOMY: Physiology knowledge integration over circuit boards of functional anatomy
11.50-12.10	Tim Ingham-Dempster	A Cellular Based Model of the Colon Crypt Suggests Multiple Roles for APC Mutation in Colorectal Carcinogenesis
12.10-12.30	Liesbet Geris	Evaluating the reliability of qualitative interactions through network inference

Lunch

12:30-14:00

Meta Modelling

14:00-16:00

Emmazaal

chair person – Bernard de Bono

14.00-14.20	Sjeng Quicken	Uncertainty quantification and sensitivity analysis of computationally expensive three-dimensional cardiovascular models
14.20-14.40	Markus Karlsson	Meta-modelling combined with non-linear mixed-effects modeling for fast and robust estimation of biomarkers for diffuse liver disease
14.40-15.00	Bertrand Frechede	A public-private integrated framework for in-silico virtual testing: the open-source PIPER project to personalize and position HBMs
15.00-15.20	David Nickerson	OpenCMISS-Osmium: helping PMR support the VPH requirements for identifiable and discoverable computational models
15.20-15.40	Victor Voski	A State of The Art Virtual Physiological Human Model for Regional Anaesthesia
15.40-16.00	Rikard Johansson	Model predictive glucose control in intensive care: assessment in realistic clinical conditions

Cardiac Modelling

*Plenary Room
(Grote Zaal)*

14:00-16:00

chair person – Peter Hunter

14.00-14.20	Henrik Finsberg	Personalized Cardiac Mechanical Model using a High Resolution Contraction Field
14.20-14.40	Jack Lee	Personalised Cardiac Electromechanical Modelling in Clinical Timeframe
14.40-15.00	Salvatore Pasta	Predicting Right Heart Failure in Patients with Pulmonary Hypertension
15.00-15.20	Jose F Rodriguez Matas	Vulnerability in Regionally Ischemic Human Heart. Effect of the Extracellular Potassium Concentration
15.20-15.40	Joost Lumens	Computational Modelling of Myocardial Deformation: Guiding Diagnosis and Treatment through Characterising the Underlying Pathology
15.40-16.00	Marcello Chinali	Patient-Specific Heart Model in Children with Dilated Cardiomyopathy: a Useful Tool to Guide Beta-Blocker Therapy in Children with Heart Failure

Personalised Medicine I

Mauritszaal

14:00-16:00

chair person – Jolanda Wentzel

14.00-14.20	Belen Casas	Patient-specific modelling of cardiovascular function using 4D Flow MRI
14.20-14.40	Claudio Capelli	Translations of patient-specific simulations for planning treatment of congenital heart diseases
14.40-15.00	Martina I. Sciola	Quantitative computational evaluation of cardiac and coronary physiology: preliminary results
15.00-15.20	Gábor Závodszky	Integrated techniques for fast, patient specific examination of intracranial aneurysms as part of a clinical workflow
15.20-15.40	Andrew Svitenkov	Sensitivity of whole-body 1D hemodynamic simulations to the level of detail of the arterial tree model
15.40-16.00	Wouter Huberts	The uncertainty resulting from the use of patient-generic boundary conditions in hemodynamic simulations of cerebral aneurysms

Vascular Modelling

Raadszaal

14:00-16:00

chair person – Dawn Walker

14.00-14.20	Lucian Itu	Non-invasive estimation of regional mechanical wall properties of the aorta
14.20-14.40	Natalia Melnikova	A cell-based mechanical model of coronary artery tunica media
14.40-15.00	Wouter Huberts	An explicit coupling method for modeled outlet boundary conditions in hemodynamic simulations of cerebral aneurysms
15.00-15.20	Nasrul Hadi Johari	Evaluation of flow disturbance in a stenosed carotid artery bifurcation model using γ-Reθ transitional CFD and large eddy simulation models
15.20-15.40	Ali Akyildiz	Influence of Intima Heterogeneity on Atherosclerotic Plaque Stresses
15.40-16.00	Joke Keijsers	Numerical analysis of blood flow regulation during muscle contraction

Orthopaedics

Bestuurskamer

14:00-16:00

chair person – Oliver Röhrle

14.00-14.20	Syn Schmitt	Passive mechanics on the human lumbar spine - data-integrated computer simulation of the load sharing between ligaments, intervertebral discs and muscle-tendon units during forced bending
14.20-14.40	Maria Angeles Perez	Computer-based estimation of subject-specific loads: from patient to virtual model
14.40-15.00	Geert Streekstra	The effect of motion blur on the accuracy of wrist joint kinematics detection from 4D-CT scans
15.00-15.20	Giuliana Caiti	Semi-automatic design of patient-specific osteosynthesis material: Application to the distal radius
15.20-15.40	Ali Zeighami	Medial and lateral knee joint contact forces during gait in normal and osteoarthritic subjects
15.40-16.00	Iwan Dobbe	Minimizing the translation error in the application of an oblique single-cut rotation osteotomy: Where to cut?

Coffee/tea break

16:00-16:30 (in parallel with and Poster Session)

Reception

16:30-18:30 (in parallel with Satellite Event I and Poster Session)

Satellite Workshop: Computational Modelling for Enhancement of Medical Device Development and Patient Treatment

Mauritszaal

16:30-17:50

16.30-16.50	Mark Palmer, Medtronic	The in silico patient: challenges and opportunities
16.50-17.10	Sebastian De Boodt, Materialise N.V.	Improving medical devices through image based population driven design
17.10-17.30	Dennis Jansen, Radboud University Medical Center	Computational assessment of total knee arthroplasty designs
17.30-17.50	Zahra Asgharpour, Materialise N.V.	Recent advancements in medical image processing to accelerate patient-specific musculo-skeletal research

Poster Session

16:30-18:00

01	George Qian	Mathematical Modelling of Calcium Ions during Ischaemic Stroke
02	Erik N.T.P. Bakker	Clearance from the brain via paravascular channels is facilitated by arterial pulsations
03	Benjamin Csippa	Secondary flows in pre-aneurysmal geometries: a pilot study
04	Daniil Parshin	The diagnostic properties of oscillating mathematical model of cerebral haemodynamics
05	Seyed Saeid Khalafvand	Numerical modelling of 4D left ventricular blood flow using computed tomography imaging and computational fluid dynamics
06	Lauren Dupuis	Mechano-Chemical interactions in cardiac sarcomere contraction: a modeling study
07	Rob Macleod	The Consortium on Electrocardiographic Imaging (CEI)
08	Alessio Gizzi	Thermo-electro-mechanical modelling of cardiac arrhythmias: Low energy defibrillation efficiency
09	Adrianus J. Bakermans	In vivo 31P-MRS of the human heart: a noninvasive tool for experimental validation of myocardial metabolic model predictions?
10	Andrew J Atkinson	3D anatomical reconstruction of human cardiac conduction system
11	Svyatoslav Khamzin	Load-dependence of the electromechanical function of myocardium in a 1D tissue model
12	Tim Dezutter	Evaluation of Medtronic CoreValve fatigue safety in the region of the left ventricular outflow tract by means of FEA: comparison between the use of simplified and patient-specific geometries
13	Bruno Frackowiak	3D CFD simulation of blood flow in coronary vascular trees
14	Lorena Casadonte	Baseline indices of stenosis severity are affected by changes in systemic hemodynamics
15	Pavel Zun	Multiscale model for studying the interaction between coronary collaterals and in-stent restenosis

16	Leonid Goubergrits	Validation study of a novel simplified CFD model for the pressure drop assessment in the coarctation of the aorta
17	Ed van Bavel	Integrated modelling of small artery structure and function
18	Eva Leemans	Towards patient specific biomechanical indices for abdominal aortic aneurysm rupture risk assessment
19	Ali Akyildiz	Collagen Architecture in Atherosclerotic Plaques
20	Britt van Rooij	Computational Modeling of Platelet Plug Formation
21	Maria Giuseppina Chiara Nestola	FDM-FEM Coupling for Fluid Structure Interaction
22	Robin Richardson	Reducing the computational cost of clinical lattice--Boltzmann simulations through velocity and resolution scaling
23	Tatiana Dobroserdova	Coupling of 1D and 3D blood flow models with compliant and rigid vessel walls
24	Alfons Hoekstra	Towards the Virtual Artery, a multiscale model for vascular pathophysiology
25	Haryadi Prasetya	Towards a quantitative understanding of contrast flow dynamics in lower extremity critical limb ischemia
26	Alex Frangi	Student's t-Mixture Model: Approach to Robust Group-wise Point Set Registration and Statistical Shape Model Construction
27	Gunnar Cedersund	Model-based interpretation of functional resonance imaging data – a new framework and a first mechanistic model for non-typical responses
28	Benedetta Biffi	Automatic Processing of Cardiac MR Images: Towards Clinical Translation of Patient-Specific Modelling
29	Alex Frangi	Simultaneous diffusion and pseudo-diffusion tensor estimation in diffusion magnetic resonance imaging
30	Giuliana Caiti	From virtual planning to the actual surgery: toward a minimal invasive approach for corrective osteotomy of the distal radius
31	Liesbet Geris	Ensemble modelling of chondrogenic differentiation in the growth plate
32	Stefan Zasada	Distributed Binding Affinity Calculations for Drug Discovery and Patient Treatment

33	Ruth Eccleston	Predicting the viral peptidome by combining viral intracellular kinetics with peptide immunogenicity algorithms
34	Michael Lenz	Deconvolution of the white adipose tissue cell types from whole genome gene expression profiles
35	Alva Presbitero	Reproducibility: Initial Approach to Modelling the Innate Immune System
36	Holger Stenzhorn	A Lightweight Tool for Enriching Clinical Trial Metadata and Data with Ontological Concepts
37	Ilaria Stura	Prostate follow-App: a model based tool for patients and clinicians
38	Davide Zaccagnini	Computational Models in Clinical Practice, real world challenges and implementation strategies
39	Giovanna Maria Dimitri	Analysis and Prediction of ICP and HR crosstalks events from brain traumatic injuries patient
40	Alexander Danilov	Patient-specific image segmentation and adaptive mesh generation
41	Zandra C. Félix Garza	Modelling blue light treatment of inflammatory skin conditions to optimize the therapeutic approach
42	Jeremy Laforet	Bringing a uterine activity model into the hands of the community
43	David Nickerson	Proposed submission and curation workflows for publishing discoverable, reproducible, and reusable PHYSIOME models
45	Alberto Noronha	The Virtual Metabolic Human and ReconMap: resources for genome scale metabolic reconstructions and visualization
46	Marc Horner	Credible Practice of Modeling and Simulation in Healthcare
47	Michal Jaworek	Innovative platforms for realistic clinician training in the lab
48	Giorgia Rocatello	Simulation of transcatheter aortic valve implantation (TAVI)
49	Selene Pirola	Patient-specific assessment of hemodynamic performance of transcatheter aortic valve implantation (TAVI)
50	Patricio Javier Astudillo	Simulation of transcatheter mitral valve repair and replacement
51	Joao Luis Silva Canaveira Tourais	Comprehensive quantification and visualization of valve function & flow

52	Guruprasad Krishnamoorthy	Comprehensive quantification and visualization of cardiovascular function & flow
53	Luca Barbarotta	Modeling tools for data extraction
54	Federico Cané	Quantification of intra-cardiac flow
55	Yağmur Gülkanat	4D segmentation and measurements for transcatheter heart valve implantation
56	Daniela Cruz Moreira	Development of a lab-on-chip platform for preconditioning adult-derived stem cells for tissue engineering
57	Emanuele Rondanina	Modeling tools for clinical decision making
58	Dario Farotto	Implementation of a tool for scaffold design with application in the engineering of heart valves
59	Sebastião van Uden	Development of scaffold and bioreactor technologies for the engineering of heart valve models
60	Noemi Vanerio	Development of catheter-based light-enhanced therapies

Tuesday September 27, 2016

Keynote II	*Plenary room (Grote Zaal)*
08:30-09:30	chair person – Frans van de Vosse

	Marco Viceconti	Of Mice and Human: a journey in the Virtual Physiological Mouse

VPH Institute open session	*Plenary room (Grote Zaal)*
09:30-10:00	chair person – Frans van de Vosse

	Adriano Henney	VPH Institute & the Avicenna Alliance jointly promoting in silico medicine

Coffee/tea break
10:00-10:30

In-Silico Clinical Trials	*Plenary Room (Grote Zaal)*
10:30-12:30	chair person – Marco Viceconti

10.30-11.00 (invited)	Liesbet Geris	An in silico clinical trial for the evaluation of growth factor treatment of congenital pseudarthrosis of the tibia in children with Neurofibromatosis type I
11.00-11.30 (invited)	Luca Emili	InSilicoClinicalTrial.com platform helps the scientific community define Good Simulation Practice
11.30-11.50	Jan Osman	Impact of Patient-Specific LVOT Inflow on Aortic Valve and Ascending Aorta Hemodynamics
11.50-12.10	David Nolan	A Mechanobiological Framework for the Prediction of In-Stent Restenosis; Insights into the role of load induced damage in restenotic growth
12.10-12.30	Georgios Stamatakos	In Silico Oncology: Evaluating the Predictability of Acute Lymphoblastic Leukemia Patients' Response to Treatment Utilizing a Multiscale Oncosimulator Model in Conjunction with Machine Learning Methods

The Digital Patient	*Mauritszaal*

10:30-12:30		chair person – Nic Smith
10.30-11.00 (invited)	Mark Palmer	The in silico patient: a desire or a necessity?
11.00-11.30 (invited)	Reza Razavi	Using Computational Analysis to Predict Response to Heart Failure Therapy
11.30-11.50	Susheel Varma	The VPH-DARE@IT Platform for Translating Research to Clinical Decision Support of early and differential diagnosis of dementia
11.50-12.10	Liwei Guo	Patient-specific multiporoelastic brain modelling
12.10-12.30	Soroush Safaei	Using CellML and FieldML with OpenCMISS for multi-scale physiology

Lunch

12:30-14:00

Organ Models

Emmazaal

14:00-16:00

chair person – Pat Lawford

14.00-14.20	Thomas Heidlauf	Simulating electromechanical and mechanoelectric feedback in muscle
14.20-14.40	Pim van Ooij	Comprehensive intra-cardiac blood flow measurements in ex vivo pig heart models using MRI
14.40-15.00	Eleftheria Pervolaraki	DT MRI derived tractography reveals human foetal cardiac architecture
15.00-15.20	Stewart Dowding	In Silico Simulations of In Vitro Vasodilation Experiments
15.20-15.40	Rajanikanth Vadigepalli	Modelling the dynamics of liver renewal during homeostasis and regeneration
15.40-16.00	Arndt Wagner	Simulation of coupled problems in the multi-component brain

Neuro Physiology

Bestuurskamer

14:00-16:00		chair person – Stephen Payne
14.00-14.20	Piotr Orlowski	Towards tissue-level modelling of reperfusion after ischaemic stroke: quantification of vascular constriction by pericytes
14.20-14.40	Lena Vaclavu	Cerebrovascular Reserve in Sickle Cell Disease Assessed with Perfusion Magnetic Resonance Imaging
14.40-15.00	Richard Beck	A Mathematical Model to Compare Blockade of Acid Sensing Ion Channels and Voltage Gated Sodium Channels in Multiple Sclerosis
15.00-15.20	Piotr Orlowski	Modelling of the impact of the pathophysiology of ischemic stroke on encephalography
15.20-15.40	John Vardakis	Investigating patient-specific cerebroventricular fluid complexity in dementia
15.40-16.00	Manuel Gehlen	Modelling the posture-related changes in cerebrospinal fluid dynamics

Multiscale Models I

Plenary Room (Grote Zaal)

14:00-16:00		chair person – Bastien Chopard
14.00-14.20	Peter Hunter	The PHYSIOME journal and the VPH Portal
14.20-14.40	Sarah Kosta	Fluid responsiveness and the Frank-Starling mechanism: a theoretical study with a multiscale model of the cardiovascular system
14.40-15.00	Constantine Zakkaroff	Effect of Bifurcation Angles on Arterial Coupled Cell Dynamics: Massively Parallel Simulations
15.00-15.20	Pavel Zun	Fully-coupled 3D simulations of in-stent restenosis are in qualitative agreement with in-vivo data
15.20-15.40	Michael A. Colman	A new Mathematical Model of the Human Atrial Myocyte with Variable T-tubule Organization for the Study of Atrial Fibrillation
15.40-16.00	Luca F. Pavarino	Electro-mechanical Bidomain simulations of cardiac scroll wave stability

Vascular Disease

Raadszaal

14:00-16:00	chair person – Franscesco Migliavacca

14.00-14.20	Jacob Sturdy	Effects of measurement uncertainty on estimates of the severity of coronary stenoses (FFR) and a novel method to reduce consequent errors
14.20-14.40	Annette M. Kok	MRI Based Cap Thickness and Peak Cap Stress Prediction: Man versus Machine
14.40-15.00	Claudio Chiastra	Virtual stenting analyses for the assessment of side branch compromise after provisional stenting in coronary bifurcations
15.00-15.20	Bart Cornelissen	The influence of vessel straightening after stent placement on hemodynamics in intracranial aneurysms
15.20-15.40	Susanna Migliori	Stented coronary arteries: a semi-automatic segmentation method for OCT-based reconstruction
15.40-16.00	Derek Groen	Using Transcranial Doppler to construct flow fields and validate blood flow simulations of middle cerebral arteries

Personalised Medicine II

14:00-16:00   *Mauritszaal*

chair person – Adriano Henney

14.00-14.20	Esra Neufeld	Personalized Modelling and Treatment Planning for Focused Ultrasound- and Electromagnetic Field-Based Thermal Therapies
14.20-14.40	Robert Hester	Physiological Sensitivity to Salt and Nephrectomy
14.40-15.00	William Pruett	Simulating physiological variability in human responses to renal denervation
15.00-15.20	Peter Coveney	Rapid, Accurate and Reproducible Binding Affinity Calculation for Personalized Medicine and Drug Development
15.20-15.40	Rodney Metoyer	A Framework for Multiscale Physiology: Towards Individualized Computer Simulation
15.40-16.00	Nikolaos Christodoulou	Oncosimulator Models as Components of a Personal Health Record Platform can Enable and Enhance the Provision of Personalized Medical Treatment

Coffee/tea break

16:00-16:30

Satellite Workshop: VPH & Engineering Simulation: Bridging the Gap between Industry and Clinics

Mauritszaal

16:30-18:30

16.30-16.35	Thierry Marchal (ANSYS)	Translate VPH to Clinics: the central role of the healthcare industry
16.35-16.55	Frank Gijsen (Erasmus Medical Center)	CFD in atherosclerotic coronary bifurcations
16.55-17.15	M. Horner (FDA)	VVUQ for the Medical Device Industry: Current Directions and Examples
17.15-17.35	Wim Vos (Fluidda)	Functional Respiratory Imaging: Accelerating Clinical Research
17.35-17.55	Ait Brik Boucher (Cardiatis)	From concept design to approved implanted flow modulator: faster with simulation
17.55-18.15	Mark Palmer (Medtronic)	The in silico patient: an industrial perspective
18.15-18.20		Conclusion & Panel discussion

Satellite Workshop: General Assembly of the VPH Institute

Plenary Room (Grote Zaal)

16:30-18:00
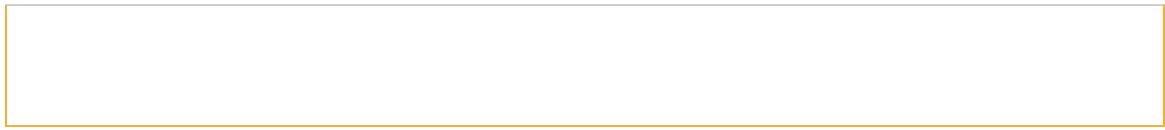
Satellite Workshop: Multi-Scale Modelling and Simulation and Analytics for Parkinson's disease 16:25-18:30		*Raadszaal*
16.25-16.30		Welcome to the session – Introduction
16.30-16.50	Alex Blenkisop et all.	Towards an understanding of motor behaviour in Parkinsons' disease: a model of a simple finger-aiming task
16.50-17.10	Sebastian James et all.	Integrating brain and biomechanics for the study of Parkinson's disease
17.10-17.30	Dimitar Stanev et all.	Neuromusculoskeletal Inertial Filtering of Centrally Generated Beta Oscillations in Parkinson's Disease
17.30-17.50	J Lewis et all.	Towards a two-process model of antisaccades in Parkinson's disease
17.50-18.10	Mauro Da Lio et all.	A novel tablet-computer based motor test for measuring and monitoring motor disabilities and in particular PD
18.10-18.30	Panagiotis Moschonas et all.	Visualising Clinical and Patient Test Data for Parkinson's Disease using Multi-Objective Analysis

Satellite Workshop: Personalized management of Oral Cavity Cancer: models and point-of-care diagnostic to help treatment decisions	*Bestuurskamer*

16:30-18:00		
16.30-16.35	T. Poli and E. Martinelli	VPH and prognostic modelling for cancer
16.35-16.45	Tito Poli	The challenge of Oral Cancer patients stratification
16.45-17.00	Steven Mes and D. Te Beest	Prognostic modelling and treatment decision making: the case of Oral Cancer
17.00-17.15	Florian Jung	New techniques for diagnostic image analysis and automatic features extraction
	K. Schneckenbach, E. Jazzani, and F. Jung	demo slideshow
17.15-17.30	Marco Cereda	Point of care personalized genomic analysis: the Q3 qRT-PCR in vitro diagnostic
17.30-17.45	OneToNet and VCI	OraMod platform: Virtual Representation and Virtual Tumor Board for decision support: presentation and demo slideshow
17.45-18.00	Chair: Ruud Brakenhoff	Round table and open discussion

Conference dinner

19.30

Wednesday September 28, 2016

Multiscale Models II

<div style="text-align: right"><i>Raadszaal</i></div>

09:00-11:00   chair person – Peter Coveney

09.00-09.20	Liesbet Geris	Mathematical modelling of ectopic bone formation in bone morphogenetic (BMP) carrier device
09.20-09.40	Dominique Chapelle	Thermodynamical framework for modeling chemo-mechanical coupling in muscle contraction
09.40-10.00	Simon Habran	A mathematical model of respiration under protective ventilation and extracorporeal CO_2 removal therapy
10.00-10.20	Ana Campos Marin	Finite Element Simulation of Complex Tissue Engineering Constructs
10.20-10.40	Ana Sofia Ferreira	Computational Modelling of Normal and Cancer Cell Collective Mechanics and Migration
10.40-11.00	Georgios Stamatakos	Important Aspects of the Large Scale Integrating EU-US Project CHIC on Advancing In Silico Oncology

Data Science

<div style="text-align: right"><i>Emmazaal</i></div>

09:00-11:00   chair person – Marian Bubak

09.00-09.20	Arthur Jochems	Bayesian networks distributed structure learning for outcome prediction in radiotherapy: the solution for big data in health care?
09.20-09.40	Koray Atalag	Exploiting Electronic Health Record Standard openEHR to Manage Experimental Data in Computational Physiology
09.40-10.00	Gunnar Cedersund	The Virtual Adipocyte – from Big Data to simulations of human disease
10.00-10.20	Shameer Sathar	Detection of Slow Wave Activation Using Machine Learning Techniques
10.20-10.40	Bart van Veen	A measure of similarity between optimal and sub-optimal muscle force production in gait
10.40-11.00	Spiros Koulouzis	Data Access Profiles of VPH Applications

Cardiovascular Modelling

<div style="text-align: right"><i>Plenary Room
(Grote Zaal)</i></div>

09:00-11:00   chair person – Rod Hose

09.00-09.20	Florian Hellmeier	Impact of Aortic Valve Prostheses (biological vs. mechanical) on Aortic Hemodynamics
09.20-09.40	Selene Pirola	Aortic Flow Hemodynamics after Surgical Aortic Valve Replacement: Comparison with a Healthy Subject
09.40-10.00	Mirko Bonfanti	Patient-specific simulation of the blood flow in an aortic dissection for clinical support including an efficient method to represent the motion of the intimal flap and vessel wall: A case study
10.00-10.20	Kujtim Gashi	Estimating myocardial resistance for case specific fractional flow reserve simulation
10.20-10.40	Daniel Alejandro Silva Soto	CFD-based pressure drop estimates across the aortic valve
10.40-11.00	Marco Frison	Fast and Effective Computation of Coronary Artery Haemodynamics: Towards a Reduced Order Model

In-Silico Clinical Trials

Mauritszaal

09:00-11:00   chair person – Mark Palmer

09.00-09.20	Piotr Nowakowski	Lifecycle of VPH applications in the cloud – lessons learned
09.20-09.40	Francesco Migliavacca	Fluid-Structure Interaction model of a polymeric aortic valve: comparison with experimental results and simulation in a patient-specific aortic root
09.40-10.00	Simao Laranjeira	Towards optimizing anti-inflammatory treatment with Chemerin
10.00-10.20	Bryn Lloyd	Filling the Gaps: New Anatomical Models based on Morphing and Non-rigid Registration
10.20-10.40	Ana Campos Marin	In silico study of the mechanisms of cell deposition into 3D rapid prototyping scaffolds under fluid flow
10.40-11.00	Giorgia Rocatello	Computer simulations to predict paravalvular leakage after TAVI: a comparison between Medtronic CoreValve and Medtronic CoreValve Evolut R Systems

Cell Based Modelling

Bestuurskamer

09:00-11:00   chair person – Helen Byrne

09.00-09.20	Allanah Kenny	Massively Parallel Simulations of Neurovascular Coupling
09.20-09.40	Simone Melchionna	Modeling and computer simulation of blood coagulation
09.40-10.00	Jose Manuel Garcia Aznar	Multiscale modelling of mesenchymal single-cell 3D migration
10.00-10.20	Bastien Chopard	Modeling thrombosis in cerebral aneurysms
10.20-10.40	Athena Economides	Simulation of Microfluidics Devices for Mechanical Cell Separation: Building the in-silico Lab-on-a-Chip
10.40-11.00	Aleksey Belyaev	Three-dimensional simulations of blood platelet aggregation mediated by membrane adhesion proteins

Coffee/tea break

11:00-11:30

Keynote III

Plenary room (Grote Zaal)

11:30-12:30 chair person – Frank Gijsen

	J. Gordon McVie	Dragging doctors Appreciation of VPH and the Internet to the 21st Century

Lunch

12:30-14:00

Bringing the VPH to the clinic: the next five years

Plenary Room) (Grote Zaal

14:00-15:40 chair person – Frans van de Vosse

14.00-14.20	Tina Morrison (FDA, USA)	Accelerating the use of In Silico Models in the Regulatory Evaluation of Medical Products
14.20-14.40	Miguel González-Sancho (eHealth Unit, European Commision)	title t.b.a.
14.40-15.00	Niels Boye, MD (Aleris-Hamlet hospital, Denmark)	An Outlook Towards Future Personal Clinical Medicine
15.00-15.20	Julian Gunn, MD (University of Sheffield)	Virtual Coronary Flow: from Angiogram to Treatment Planning
15.20-15.40	Peter Hunter (University of Auckland, New Zealand)	Translating the VPH to the clinic - How do we make it happen?

Closing VPH2016

Plenary Room (Grote Zaal)

15:40-16:00   chair person – Alfons Hoekstra

15.40-15.50	Announcing VPH2018
15.50-16.00	Closing of the conference