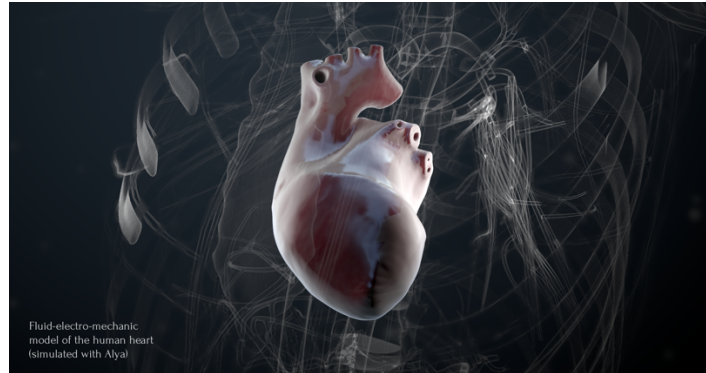


# Cardiac Modelling, Fluid-Solid Interactions and Biomedical Flows

A workshop at Science Park 904, Amsterdam, NL, Wednesday 28<sup>th</sup> March 2018



## Introduction

CompBioMed is a user-driven Centre of Excellence in Computational Biomedicine, to nurture and promote the uptake and exploitation of high performance computing within the biomedical modelling community.

VHeart is a Spanish Network of Excellence aimed at sharing tools and software with members of the network to improve the overall knowledge and capacity to develop a personalised virtual heart. It is made up of 9 universities and research centres throughout Spain.

This workshop is to bring together these two projects and to share the combined knowledge of the participants in the fields of Cardiac modelling, Fluid-solid interactions and biomedical flows.

## Programme

The meeting is divided into three sessions, as prescribed by the title of the workshop: **Cardiac Modelling, Fluid-solid Interactions and Biomedical Flows**. In each session there will be three or four 20-minute presentations by senior researchers within the two projects, along with three 10-minute presentations by PhD students. See attached programme

## Abstracts

We invite students from within and without CompBioMed and VHeart to submit abstracts for one of these 10-minute presentations. We will select the best 3 in each session to speak on the day. Those that are not successful for an oral presentation will be welcome to produce a poster for presentation during the lunch session.

Please state clearly which session you would like to be considered for, and write a short abstract (up to 400 words) and send this to [e.lumley@ucl.ac.uk](mailto:e.lumley@ucl.ac.uk) with the e-mail subject header “**Abstract for CompBioMed & VHeart Workshop – [title of session]**”

Deadline for abstract submissions is **17:00 GMT, Monday 26<sup>th</sup> February 2018**



**Wednesday 28<sup>th</sup> March 2018**  
**Science Park 904, Amsterdam**

Room A1.04

<b>09:00</b>	Peter Coveney	Introduction to CompBioMed
<b>09:10</b>	Javier Saiz	Introduction to VHeart
<i>Session 1: Cardiac Modelling (Chair: Javier Saiz)</i>		
<b>09:20</b>	Beatriz Trenor (VHeart)	Computational Simulations of Ventricular arrhythmias
<b>09:40</b>	Blanca Rodriguez (CompBioMed)	<i>In silico</i> trials for pharmacology
<b>10:00</b>	Javier Saiz (VHeart)	A highly detailed computer model for studying Atrial arrhythmias
<b>10:20</b>	Mariano Vazquez (CompBioMed)	Cardiac HPC-based simulations
<b>10:40</b>	Student presentations	
<b>11:10</b>	<i>Break/ Tea and Coffee</i>	
<i>Session 2: Fluid-solid Interactions (Chair: Julien Favier)</i>		
<b>11:30</b>	Oscar Camara (VHeart)	Chicken wings, cactus, windsocks and cauliflowers in cardiology
<b>11:50</b>	Alfons Hoekstra (CompBioMed)	Cell based blood flow simulation with HemoCell
<b>12:10</b>	Julien Favier (CompBioMed)	An <i>in silico</i> approach for the study of mucociliary clearance in human lungs
<b>12:30</b>	Student presentation	
<b>13:00</b>	<i>Lunch and Poster Session</i>	
<i>Session 3: Biomedical Flows (Chair: Peter Coveney)</i>		

<b>14:00</b>	Eduardo Soudah (VHeart)	Computational fluid dynamics indicators to improve cardiovascular pathologies diagnosis
<b>14:20</b>	Bastien Chopard (CompBioMed)	A physical description of platelets deposition: towards new platelet function tests
<b>14:40</b>	Alberto Marzo (CompBioMed)	Improved diagnosis of cerebral vasospasm through sensitivity analysis of a 1D cerebral circulation model
<b>15:00</b>	Alex Patronis (CompBioMed)	Magnetic drug targeting with HemeLB
<b>15:20</b>	Student presentations	
<b>15:50</b>	<i>Break/Tea and Coffee – End of Meeting</i>	