



Dialogue on Heart Failure

22 April, 2016 @ University Glasgow, UK

This dialogue aims to identify some crucial challenges in the area of heart failure and diseases for the next 20 years as seen by clinicians today, which may be tractable to a mathematical modelling approach. Starting with some review-type talks by the lead speakers, we wish to have a lively dialogue between clinicians and modellers, and agree on a list of important problems; some may be addressed in the short term, and some will require longer term, large scale, funding. These problems will be published at the POEMS/SofTMech websites to help the community to develop new research proposals and forge new collaborations. All participants will be expected to contribute to the discussion, and are welcome to bring a one-page brief (mini-poster) to introduce their own expertise. It is also expected that all participants will submit a short description on what they perceive as a particular challenge/problem from this workshop.

Lead speakers

Prof. Darrel Francis (Imperial College, UK)
Prof. Colin Berry (University of Glasgow, UK)
Mr. Mark Danton (Golden Jubilee Hospital, UK)
Prof. Fritz Prinzen (Maastricht University, Netherlands)
Prof. Gernot Plank (Medical University of Graz, Austria)
Dr. Steve Niederer (Kings College London, UK)
Prof. Einar Heiberg (Lund University, Sweden)

Registration is now open for interested modellers & clinicians to join the dialogue. Lunch/tea/coffee will be provided for free of charge. There is no registration fee, and we will provide a contribution to travel costs of up to £100 for a limited number of attendees (on the first come first serve basis). The attendees are expected to sort out their own accommodation, and a range of hotels near the University can be found [here](#). To register and apply for travel support, please e-mail Joanne Suter (poems-admin@sheffield.ac.uk).

EPSRC

Engineering and Physical Sciences
Research Council

IDEAS events are funded by [POEMS](#) and [SoftMech](#)
Academic contact: Prof. Xiaoyu Luo (xiaoyu.luo@glasgow.ac.uk)

The programme:

9:00-9:25 Registration and Tea/Coffee (The common room of the School of Mathematics and Statistics, University of Glasgow)

9:25-9:30 Welcome and Introduction – Prof. Xiaoyu Luo

Morning session I (room 515, each talk includes 5 min question time)

9.30-9.55 “Atrioventricular plane displacement is a fundamental aspect of cardiac function”,
Prof. **Einar Heiberg** (Lund University, Sweden)

9.55-10.20 “Linking physiology and cardiology through mathematical models”,
Dr. **Steve Niederer** (Kings College London, UK)

10.20-10.45 “Mitral valve dysfunction and heart failure”,
Mr. **Mark Danton** (Golden Jubilee Hospital, UK)

10.45-11:10 “Towards clinical application of electro-mechano-fluidic models of the heart”,
Prof. **Gernot Plank** (Medical University of Graz, Austria)

11.10-11.40 Tea/coffee break (the common room)

Morning session II

11.40-12.05 “Myocardial infarction and MRI”,
Prof. **Colin Berry** (University of Glasgow, UK)

12.05-12.30 “Automated algorithms to quantify cardiac function: an open invitation”,
Prof. **Darrel Francis** (Imperial College, UK)

12.30-12.55 “Challenges of modelling the diastolic heart failure”,
Prof. **Fritz Prinzen** (Maastricht University, Netherlands)

12:55-14:00 Buffet Lunch (the common room)

One-minute presentations from the attendees (a couple of slides may be shown).

Mini-posters from the participants will be displayed.

Afternoon session

14:00-16:00 Group discussions on themed topics (rooms 515 and 516)

16:00-16.40 Summaries from the groups on identified questions and challenges (room 515).

16.40-17.00 Artist’s impression of selected topics in the event (room 515).

17.00 Workshop ends

List of registered attendees (clinicians are in bold):

Title	Forename	Surname	Organization	Email
Dr	Pedro	Aparicio	University of Oxford	pedro.aparicio@eng.ox.ac.uk
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