CompBioMed

A Centre of Excellence in Computational Biomedicine

e-Seminar Series

e-Seminar #23
Supercomputer-based in-silico clinical trials in cardiac therapies towards exascale computing

27 May 2022 2pm CEST / 1pm BST (1h duration)

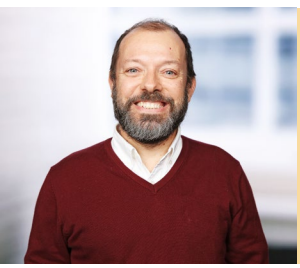
Register for free here: https://register.gotowebinar.com/register/896624666208942352

Biological systems are one of the most challenging modelling and simulation arenas. Let us pick one, which is particularly difficult:

Cardiac modelling. Complex multi-scale and multi-physics, very large input datasets, a massive amount of output data to post-process and analyse, difficult validation against scarce high-definition experimental and clinical data, comorbidities and patient variability...

all these features are present together when you try to re-create a beating heart in a computer. Since 2005, our team has been developing *Alya*, a tool to tackle these problems, helping doctors to understand a diseased heart and optimize therapies to heal it. Supercomputers, and a simulation code capable of making the most of them, are our weapons.

This is the 23rd in a series of online e-Seminars organised by CompBioMed. Watch the full series at www.compbiomed.eu/training!



Mariano Vázquez is Chief Technical and Scientific Officer at ELEM Biotech, a start-up company spun off from the Barcelona Supercomputing Center. Mariano holds a PhD in computational physics from the Technical University of Barcelona, Spain. He co-leads the Alya Dev Team, a 50 strong research group who develop their main modelling tool. His research interests are in cardiac computational modelling, computational mechanics and high-performance computing.

Moderated by Tim Weaving, **UCL**

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