



Seventh Framework Programme (FP7)

Theme: ICT - Information and Communication Technologies

In-silico Digital Sepsis Patient (I-sDSP)

Type of funding scheme: Coordination and Support Action: Coordinating (CSA-CA)

Work programme topics addressed: FP7-ICT-2011-7

5.2 Virtual Physiological Human

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Proposal Abstract:

In-silico Digital Sepsis Patient (I-sDSP)

The goal of this project is to build a platform in order to satisfy the following issues: to increase situational awareness of medical decision makers particularly in event-driven intensive care units (ICUs) during tailored treatment in real time using high performance computing (HPC); to lead new mathematical (stochastic and multi-dimensional) avenues to foster academic research on ground and their on-site implementations; to motivate the development and the fusion of already proposed mathematical models for organs, tissues, and cells at different scales; to build a mobile network infrastructure to disseminate the acquired results from different models; to provide ethical statistics of the applied results for the epidemiological and demographic studies; to support translational medicine activities for teaching and training. This project will enable the researchers and medical scientists to collaborate and disseminate their results facilitating communication between them and also other stakeholders. This project aims to develop a Research and Technological Development roadmap preparing the basis for I-sDSP. The I-sDSP is a digital representation of the integration of the patient-specific organ-, tissue-, and cell-models at different scales for better prediction and treatment of sepsis in order to provide patients, a personalised and predictive care with a minimum death risk in real time.