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Speaker: Jazmín Aguado Sierra

Abstract: The current and future work towards building an insilico drug-testing framework for high throughput screening of the electro-mechanic effect of drugs at the tissue and organ level using a multi-scale, multi physics, massively parallel program, called Alya, will be explained.

With close collaboration of a highly recognized experimental cardiology laboratory, the expertise on multi-physics, HPC simulations and the supercomputing power of Marenostrum, the new tools for cardiac safety drug testing are being build.

Short Bio:

Biomedical Engineer from Universidad Iberoamericana, México City, México.

PhD on Bioengineering on Mathematical models of Blood flow in Arteries, including Coronary Arteries, from Imperial College London, UK.

PostDoctoral studies at the Cardiac Mechanics Research Group, Bioengineering Department, University of California, San Diego, USA.

[Google Scholar Profile](#)

Severo Ochoa Mobility Grant funded visit: The Masonic Medical Research Laboratory (MMRL) is an internationally recognized biomedical research institute of experimental cardiology. In recent years, the MMRL has become an international center for genetic screening of cardiac arrhythmia diseases, especially those contributing to sudden death syndromes, including sudden infant death syndrome (SIDS). The MMRL is a center of reference for drug safety testing for atrial fibrillation, addressing one of the greatest unmet medical needs facing our society.

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