MDIC
MEDICAL DEVICE INNOVATION CONSORTIUM

COMPUTATIONAL MODELING AND SIMULATION

Widely used in the physical sciences, Computer Modeling and Simulation (CM&S) is the use of physical or logical representation of a given system or model to generate data. This data is then used to make predictions. In regulatory science, these have been used with a variety of outcomes in the regulatory process. MDIC's Computer Modeling and Simulation program spotlight these strategies to balance the desire for certainty in device performance while limiting the delay associated with finding patients that fit restrictive criteria while increasing certainty for use in the regulatory process as valid scientific evidence.

Current CM&S Projects

- Blood Damage Modeling
  - Hemolysis Working Group
  - Thrombosis Working Group
- CM&S Landscape Survey
- Publicly Funded Human Body Simulation models
- Virtual Patient Project
- ENRICHMENT trial (in silico clinical trial) Project & Industry Advisory Council (IAC)
- External Evidence Methods (EEM)

MDIC member organizations have multiple opportunities in various CM&S projects. These projects are governed by the MDIC CM&S Steering Committee which comprises of global thought leaders on medical device Computational Modeling Simulation from across industry and the private sector.

Current chair of MDIC CM&S steering committee: ***Randall Schiestl, Vice President, Research & Development, Global Technology, Boston Scientific***

Coming Soon! MDIC Landscape Report on Medical Device Computational Modeling and Simulation

This MDIC Landscape Report on Computational Modeling and Simulation presents results from MDIC's most recent CM&S Survey, which addressed a diverse range of stakeholders. This report will discuss the potential of CM&S to reduce product development costs, speed time to market, and better serve patients with safe and effective medical devices. Case studies included in this report will demonstrate tangible evidence of the value of simulation and modeling to both industry and regulators. The report will also address current barriers to more widespread adoption and offers recommendations for future actions.

ABOUT MDIC

The Medical Device Innovation Consortium (MDIC) is a public-private partnership that brings together representatives of the FDA, NIH, CMS, NIST, and other agencies, industry, non-profits, and patient advocacy organizations to improve the processes for development, assessment, and review of new medical technologies.

MDIC coordinates the development of methods, tools, and resources used in managing the total product life cycle of a medical device to improve patient access to cutting-edge medical technology.

We are driving faster, safer, and more cost-effective innovation for patient benefit.

LEARN MORE

Learn more about MDIC and CM&S projects by visiting **www.mdic.org/program/computational-modeling-and-simulation-cms/**

CONTACT

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