

Dassault Systèmes Signs Research Agreement with the Food and Drug Administration for its “Living Heart Project”

The Project Accelerates Towards Next Generation Patient Experience for Treatment and Diagnosis of Heart Diseases Through Key Milestones and Crowdsourcing

LAS VEGAS — November 12, 2014 — [Dassault Systèmes](#) (Euronext Paris: #13065, DSY.PA), the 3DEXPERIENCE Company, world leader in 3D design software, 3D Digital Mock Up and Product Lifecycle Management (PLM) solutions, today announced that it has reached a significant milestone in its project aimed at driving the creation and use of simulated 3D personalized hearts in the treatment and diagnosis of heart diseases and medical device development. Powered by Dassault Systèmes 3DEXPERIENCE platform’s realistic simulation applications, [The “Living Heart Project”](#) announced in May of this year, has rapidly moved its first realistic 3D heart simulator into beta test, validated the efficacy of a device and has surpassed 30 contributing member organizations.

As a key step of this initiative, Dassault Systèmes has signed a five-year collaborative research agreement with the [United States’ Food and Drug Administration](#) (FDA) which will initially target the development of testing paradigms for the insertion, placement and performance of pacemaker leads and other cardiovascular devices used to treat heart disease.

Using a technology crowdsourcing model that protects the intellectual property of each member, yet enables all to share the outcome, the “Living Heart Project” is being developed closely with leading cardiologists, medical device companies and academic researchers who participate in the evaluation of the simulated heart model’s use in testing medical devices, improving clinical diagnosis and guiding pre-surgical planning.

The 30 contributing member organizations, which include more than 100 cardiovascular specialists from across research, industry and medicine, have access to the heart simulator for testing, enabling the acceleration of the program via crowdsourcing. The researchers have teamed with the [Medical Device Innovation Consortium](#) (MDIC) with the goal of accelerating the approval process of medical devices while spurring innovation, improving patient reliability and reducing costs. The Project has already been used to validate the efficacy of a novel valve assist device prior to insertion in a real patient and understand the progression of heart disease.

“Computational modeling and simulation has the potential to revolutionize the medical device and healthcare fields by accelerating innovation and providing comprehensive evidence of long-term safety,” said Bill Murray, President and CEO, MDIC. “It holds the promise of going beyond empirical testing thru human clinical trials to evaluating the interaction of devices with the human body that is not obtainable in any other way. The Living Heart Project is a leading example of a new tool that offers the medical device community a heart simulation that could be validated for use from device design to regulatory submission.”

“The future of healthcare will no doubt include the use of modeling and simulation to guide our choice of treatments, train our doctors and even educate patients on their role in managing their health,” said Dr. Kumaran Kolandaivelu, Instructor of Medicine at Harvard Medical School and Medical Director, Clinical Research Center, Massachusetts Institute of Technology. “As physicians, we have a moral imperative to use the best science available to ensure the highest quality care with minimal invasiveness and at the least possible cost. We are working with Dassault Systèmes because I believe the time is right to embrace the full potential of computational science in medicine as it has in other disciplines.”

“Enabling healthcare players to create innovative patient experiences is Dassault Systèmes strategic aim in Life Sciences,” said Jean Colombel, Vice President, Life Sciences, Dassault Systèmes. “Through Dassault Systèmes’ 3DEXPERIENCE platform tailored to address unmet medical needs, as demonstrated here in cardiovascular, we support generation of new healthcare solutions and collaborative practices that will ultimately improve patient outcomes and increase patient accessibility.”

This next phase of the Living Heart Project was announced today during [Dassault Systèmes’ 3DEXPERIENCE FORUM North America in Las Vegas, Nevada](#). The event brings together leaders across all of the company’s 12 Industries. Complete information on the Living Heart Project can be found at www.3DS.com/heart.

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About Dassault Systèmes

Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 190,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com.

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