Dassault Systèmes Announces Commercial Availability of Its First Simulated Human Heart

Scientifically Accurate 3D Model Accelerates Device Testing and Research for Treatment of Heart Disease

VÉLIZY-VILLACOUBLAY, France and BERLIN — May 20, 2015 — 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 during its SIMULIA Community Conference that the first heart model from its "Living Heart Project" will be commercially available on May 29, 2015. Powered by Dassault Systèmes' 3DEXPERIENCE platform's realistic simulation applications, the commercial, high-fidelity scientifically validated 3D simulator of a four-chamber human heart is the first product of its kind. With this model, device manufacturers, researchers, and medical professionals will be able to perform virtual tests and visualize the heart's response in ways that are not possible with traditional physical testing.

The "Living Heart" model as delivered represents a baseline healthy heart, which can be used to study congenital defects or heart disease by modifying the shape and tissue properties in an easy-to-use software editor. In addition, medical devices can be inserted into the simulator to study their influence on cardiac function, validate their efficacy, and predict reliability under a range of operating conditions. For example, coronary stents can be evaluated for optimal type, size, and placement location to achieve the best performance.

"I had been aware of advances in simulation technology, but prior to the 'Living Heart Project' I was unaware that it could address the types of challenges I have as a practicing cardiologist and medical educator," said Robert Schwengel, MD, FACC and Clinical Assistant Professor of Medicine, Alpert Medical School, Brown University. "Having spent time with their 3D experiences, I believe a product like this could be very powerful in helping to educate my patients, students of medicine, and current medical professionals, as well as lead to improved diagnostic capabilities and the personalization of medical therapeutics."

Announced in 2014, the "Living Heart Project" leverages crowdsourcing of its 45 current members to build its models while protecting the intellectual property of each member. Members include regulatory science focused organizations such as the Food and Drug Administration (FDA) and the Medical Device Innovation Consortium (MDIC), as well as technology providers, cardiologists, medical device manufacturers and hospitals such as

St. Jude Medical and Mayo Clinic. This unique crowdsourcing approach has enabled the heart model to be independently tested and included in peer-reviewed scientific journals by project members, and helped Dassault Systèmes deliver the first iteration of the project's commercial product on an accelerated schedule. This achievement demonstrates the effectiveness of the project's approach and reaffirms the opportunity for simulation to address meaningful challenges in cardiovascular disease.

"The availability of the first commercial, physics-based simulated heart marks a significant milestone for digital medical tools that will advance cardiovascular science and directly impact the quality of life of patients," said Scott Berkey, CEO, SIMULIA, Dassault Systèmes. "The 'Living Heart Project' is proof that our technology can potentially change the course of therapies through simulation of the human body. We will continue to collaborate with the biomedical community and our partners to provide technology and applications that will enhance the experience for heart patients everywhere."

The "Living Heart" model includes well-defined anatomic details of the heart as well as proximal vasculature, such as the aortic arch, pulmonary artery, and superior vena cava (SVC). The dynamic response of the heart model is governed by realistic electrical, structural, and fluid (blood) flow physics.

In addition to the general availability of the heart simulator, the members of the "Living Heart Project" have collectively identified the highest priority cardiovascular applications for it and associated technological advancements which will help shape the functionality of future versions of the simulator.

To learn more about the "Living Heart Project" please visit: http://www.3ds.com/heart.

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.

Dassault Systèmes Press Contacts

Corporate / France	Arnaud MALHERBE	arnaud.malherbe@3ds.com	+33 (0)1 61 62 87 73
North America	Suzanne MORAN	Suzanne.moran@3ds.com	+1 (781) 810 3774
EMEAR	Julie BOUCKAERT	julie.bouckaert@3ds.com	+33 1 6162 5371
	Carola VON WENDLAND	carola.vonwendland@3ds.com	+49 89 960 948 376
China	Grace MU	grace.mu@3ds.com	+86 10 6536 2288
Japan	Yukiko SATO	yukiko.sato@3ds.com	+81 3 4321 3841
Korea	Myoungjoo CHOI	Myoungjoo.choi@3ds.com	+82 10 8947 6493
India	Seema SIDDIQUI	seema.siddiqui@3ds.com	+91 1244 577 100
AP South	Tricia SIM	tricia.sim@3ds.com	+65 6511 7954