



# News Release

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## Southend University Hospital Utilizes 3D Systems' Simulator for Life-Saving Team Training in Acute Stroke

- UK-based Southend University Hospital successfully uses 3DS' ANGIO Mentor Suite simulator to train physicians and staff in interventional stroke treatment
- 3DS to host webinar: "Acute Ischemic Stroke Intervention" highlighting simulation training
- Team training solutions showcased at the upcoming Society in Europe for Simulation Applied to Medicine (SESAM) exhibition

**ROCK HILL, South Carolina, June 18, 2015** – [3D Systems](#) (NYSE:DDD) announced that Southend University Hospital established an innovative interventional stroke service using 3DS' ANGIO Mentor Suite simulator at Anglia Ruskin University for efficient and realistic team training for endovascular stroke treatment.

According to the American Heart Association Annual Statistical Update based on data compiled from over 190 countries, stroke remains the number 2 cause of death in the world. In the US, stroke is the number 4 cause of death, killing nearly 129,000 people a year.<sup>(1)</sup>

Recent clinical studies have demonstrated for the first time that endovascular treatment (mechanical opening of brain artery) can improve stroke patient outcome.<sup>(2)</sup> Currently, only 1% of ischemic stroke patients receive this costly but potentially life-saving treatment but, based on the positive outcome of these studies, this number is expected to increase to 10%.<sup>(3)</sup>



Southend University Hospital staff simulates stroke intervention procedures using 3DS' ANGIO Mentor Suite simulator.

Southend University Hospital established an innovative interventional stroke service using the ANGIO Mentor Suite simulator at Anglia Ruskin University. The hospital found that running dedicated training courses in a true-to-life cath lab environment using a virtual reality simulator, enhanced understanding of high-risk stroke procedures, strengthened collaboration and increased communication skills across the various

clinical teams involved in this complex procedure. [Watch a video](#) to see how team training at Anglia Ruskin University compares to performing a real procedure at Southend University Hospital.

Prof. Iris Grunwald, Diagnostic and Interventional Neuroradiologist at Southend University Hospital and Director Neuroscience and Vascular Simulation at Anglia Ruskin University said, "In order to provide timely regional coverage for endovascular stroke treatment, more hospitals and physicians will need to provide endovascular stroke services. To practice this high risk procedure, I believe procedural training on a virtual reality simulator such as the ANGIO Mentor Suite should be mandatory to provide an environment that is as close as possible to the actual setting when treating a patient."

3DS, with its end-to-end digital thread from surgical simulation and training to virtual surgical planning and 3D printing of anatomical models, surgical instruments, implants and medical devices, will be holding free [webinars](#) on Acute Ischemic Stroke Intervention as part of its efforts to provide education and training for the healthcare industry on June 25 and on July 14. During these webinars, 3DS will demonstrate a step-by-step treatment path using the [stroke module](#) on the ANGIO Mentor simulator. [Click here](#) for more information and to sign up for the webinar.

3DS will exhibit its full range of advanced healthcare training solutions including a large selection of virtual reality simulators and 3D printed models at the upcoming SESAM exhibition in Belfast, Ireland on June 24 – 26.

Learn more about 3DS' commitment to manufacturing the future today at [www.3dsystems.com](http://www.3dsystems.com).

### **References:**

- (1) American Heart Association, <http://newsroom.heart.org/news/new-statistical-update-looks-at-worldwide-heart-stroke-health>
- (2) Berkhemer, O.A. et al. *A Randomized Trial of Intra-arterial Treatment for Acute Ischemic Stroke*. New England Journal of Medicine 372; January 1, 2015
- (3) Meyers, Philip M. et al. *Current Status of Endovascular Stroke Treatment*. Circulation 2011; 123: 2591-2601

### **About 3D Systems**

3D Systems provides the most advanced and comprehensive 3D digital design and fabrication solutions available today, including 3D printers, print materials and cloud-sourced custom parts. Its powerful ecosystem transforms entire industries by empowering professionals and consumers everywhere to bring their ideas to life using its vast material selection, including plastics, metals, ceramics and edibles. 3DS' leading personalized medicine capabilities save lives and include end-to-end simulation, training and planning, and printing of surgical instruments and devices for personalized surgery and patient specific medical and dental devices. Its democratized 3D digital design, fabrication and inspection products provide seamless interoperability and incorporate the latest immersive computing technologies. 3DS' products and services disrupt traditional methods, deliver improved results and empower its customers to manufacture the future now.

### **Leadership through Innovation and Technology**

- 3DS invented 3D printing with its Stereolithography (SLA) printer and was the first to commercialize it in 1989.

- 3DS invented Selective Laser Sintering (SLS) printing and was the first to commercialize it in 1992.
- 3DS invented the ColorJet Printing (CJP) class of 3D printers and was the first to commercialize 3D powder-based systems in 1994.
- 3DS invented MultiJet Printing (MJP) printers and was the first to commercialize it in 1996.
- 3DS pioneered virtual surgical simulation (VSS™) and virtual surgical planning (VSP®), and its leading 3D healthcare products and services help doctors achieve better patient outcomes.

Today its comprehensive range of 3D printers is the industry's benchmark for production-grade manufacturing in aerospace, automotive, patient specific medical device and a variety of consumer, electronic and fashion accessories.

More information on the company is available at [www.3dsystems.com](http://www.3dsystems.com).