3D Systems Introduces Groundbreaking Virtual Medical Training Solutions for Advanced Care and Improved Patient Outcomes

- ARTHRO Mentor Hip Diagnostics is the only available VR simulation module for complex hip arthroscopy procedures
- Comprehensive Advanced Knee module includes customizable diagnostics
- 3DS to showcase its full range of personalized healthcare solutions at AAOS Annual Meeting


“These new modules are part of the latest 3D Systems Healthcare technology, materials and know-how that are designed to power personalized surgery,” said Kevin McAlea, Chief Operating Officer, Healthcare, 3DS. “We are dedicated to helping doctors train for, plan, practice and perform complex medical procedures and achieve better patient outcomes.”

The company’s expanding digital surgical tools include accurate 3D printed anatomical models, advanced virtual reality simulators, direct metal printing for serial production of orthopedic products and personalized 3D printed surgical guides and instruments.
The **ARTHRO Mentor Hip Diagnostics**, the first of its kind, was developed to meet the growing demand for arthroscopic training. Over the past decade a growing number of surgeons have turned to arthroscopy for performing hip procedures in an attempt to avoid the possible pitfalls of open surgery: scarring, blood loss, long recovery times and greater pain. Until now, the lack of available training simulators made this challenging procedure highly difficult to perfect. Today, using the ARTHRO Mentor Hip Diagnostics module, surgeons have the opportunity to experience the 70-degree arthroscope, limited maneuverability and difficult orientation from different portals in the round joint. This allows trainees and experienced surgeons alike to build critical confidence and competencies without risk to patient safety.

The **Advanced Knee module** provides a realistic, comprehensive training environment for diagnostics, the acquisition of basic skills and practicing a full meniscectomy procedure, which is utilized to repair a torn meniscus. The diagnostics are fully customizable, allowing surgeons to determine the level of difficulty and procedure method. Using the Advanced Knee module, surgeons get a true-to-life practice experience that helps them develop the skills and confidence for live surgery.

Watch a video highlighting these two new simulation modules [here](#).

3DS will showcase its full range of healthcare solutions at the 2015 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS) in Las Vegas, Nevada, March 25-27, in booth #1238. From the training room to the operating room, 3DS’ advanced product offerings for orthopaedic surgeons include direct metal implants, personalized surgical guides and medical models, and surgical simulation, including the newest
training module additions to the ARTHRO Mentor simulator. 3DS’ display at AAOS will include the following:

- 3D printed clinical models for surgical planning using medical image data, ranging from bone models for reconstruction to models of organs;
- Virtual Surgical Planning (VSP® System), a market-cleared, service-based approach to personalized surgery, combining 3DS’ expertise in medical imaging, surgical simulation and 3D printing;
- Simbionix™ virtual reality simulators and 3D printed anatomical phantoms for realistic medical and surgical training; and
- Leading 3D printing technologies for healthcare, including Direct Metal Printing (DMP) with the ProX™ 200, Selective Laser Sintering (SLS) with the ProX 500 and MultiJet printing with the ProJet® 5500X.

Throughout its displays, 3DS will demonstrate the power of its digital thread for personalized surgery, a proprietary workflow guiding the entire process from patient medical imaging through surgical outcomes, making possible the transition from the virtual world to the physical with perceptual design tools and software, surgical simulation and 3D printed surgical guides and models.

Learn more about 3DS’ commitment to manufacturing the future today at www.3dsystems.com.

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

- 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 Medical Modeling pioneered virtual surgical planning (VSP) and its services
are world-leading, helping many thousands of patients on an annual basis.

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.