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Virtual operation table simulator gets US patent

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Singapore: US based-Simbionix, a medical education and simulation training provider, has been granted a US patent for its patient specific simulation product, the PROcedure Rehearsal Studio (PRS). This follows a similar patent granted in the UK and is the first such patent ever granted in the US.

PROcedure Rehearsal Studio utilizes revolutionary technology, developed by Simbionix, to allow physicians rehearse a complete endovascular procedure on a virtual 3D anatomical model, based on a specific patient's CT data. The virtual model may then be used for the purpose of simulating, analyzing and evaluating preoperative surgical treatment options prior to performing the actual procedure, which may increase the physician's confidence in the upcoming procedure.

Once the 3D model has been exported to the Simbionix Angio Mentor simulation environment, the physician can practice numerous times to evaluate different techniques, while using true-to-life tools and endografts.

The patent was granted on Simbionix's concept and proprietary core technology that is used in order to simulate an image guided angioplasty procedure based on input from a patient's 3D medical image, allowing a hands-on planning and rehearsal experience. Unique to Simbionix simulation systems, the 3D segmentation model can be exported to the Simbionix Angio Mentor practice environment.

The results are an advanced method of creating an ever expanding library of unique clinical case studies for training and post-operative debriefing. The patent also covers various broad uses for the technology including use in Dicom format, use of 4D

data, use as a study case (post-operative use), and demonstration of a planned procedure to a patient among others.

Mr Boaz Tal, CFO, Simbionix, added that "With this key patent and three FDA 510(k) clearances granted for the PROcedure Rehearsal Studio applications (Carotid, Evar and Tevar), Simbionix once again demonstrates its key position as a market leader and innovator in the field of medical simulation. Having been granted the patent is an additional sign of recognition for the Simbionix comprehensive line of products, which provide innovative solutions to enhance clinical performance and advance patient safety."