



Photo Release -- First Patient Successfully Treated with Materialise's X-Ray Based Knee Guide Technology

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Materialise is on track to continue revolutionizing the personalized healthcare industry by developing 3D surgical planning software and patient-specific instrumentation for total knee replacements based on 2D X-ray information.

LEUVEN, Belgium, Sept. 22, 2014 (GLOBE NEWSWIRE) -- Today, Materialise NV (Nasdaq:MTLS) announced that orthopedic surgeon Roger Jaeken, of the AZ Heilige Familie (Holy Family General Hospital) in Reet, Belgium, has successfully performed the first total knee surgery that was preplanned by means of the Materialise X-ray knee guide solution. This new proprietary technology from Materialise allows for the preplanning of knee replacement surgeries as well as the 3D printing of related surgical guides, solely on the basis of 2D X-ray images.

A photo accompanying this release is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=27824>

Until now, the technology that combines the surgical planning of total knee replacements in a virtual 3D software environment with the 3D printing of corresponding patient-specific surgical guides required the availability of CT or MRI scans of the patient's knee. These imaging modalities are only used in a minority of all knee replacement surgeries. Materialise, the pioneer of the widely used CT and MRI based knee guide technology, has now developed the next generation of total knee replacement surgical planning and guiding tools, which actually turn 2D X-ray images into 3D information and solutions. 2D X-ray images are generally available for all total knee replacement cases.

[Dr. Roger Jaeken photo](#)

Dr. Roger Jaeken, AZ Heilige Familie (Holy Family General Hospital), Reet, Belgium

"I'm very excited to be part of this development project." Dr. Roger Jaeken states. "The ability to work from X-ray images will make the surgical preplanning process even more efficient. This is because, in many instances, patients will no longer have to undergo an often time-consuming CT or MRI scan, lead times will become shorter, and more cases will become eligible for preoperative planning."

"At Materialise, we initiated the R&D program that is at the source of our new X-ray based technology shortly after the successful introduction of our CT/MRI based guide technology. The reason for this is our continued drive to stay one step ahead of the industry," says Fried Vancraen, the company's CEO. "We consider the first treatment of a patient with our X-ray technology as an important landmark in this development program."

Materialise intends to continue evaluating the X-ray based knee guide technology, starting with a limited release of the product in Europe, before then initiating the regulatory clearance process in the US.

About Materialise

With its headquarters in Leuven, Belgium, and branches worldwide, Materialise is a provider of Additive Manufacturing (AM) software solutions and sophisticated 3D printing services in a wide variety of industries, including healthcare, automotive, aerospace, art and design and consumer products. Materialise has been playing an active role in the field of AM since 1990, through its involvement in AM for industrial and medical applications; by providing biomedical and clinical solutions such as medical image processing and surgical simulations and by developing unique solutions for its customers' prototyping, production, and medical needs.

Cautionary Statement on Forward-Looking Statements

Some of the statements in this press release are "forward-looking" and are made pursuant to the safe harbor provision of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include statements relating to, among other things, our planned commercialization efforts and regulatory approvals of our technologies as well as the success thereof and our research and development projects. These forward-looking statements are based upon the expectations of management under current assumptions at the time of this press release. We caution you that forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control that may cause our actual results to differ materially from our expectations. We are providing this information as of the date of this press release and do not undertake any obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or otherwise, unless we have obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

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