Press Release

Powerful novel imaging technique for MaRVis MR guidewires to be presented at ISMRM 2011 Annual Meeting by German Cancer Research Center

May 6th, 2011 – MaRVis Technologies GmbH has developed a unique platform technology for medical devices to be used in magnetic resonance imaging (MRI) - guided treatments. For the first time, reliable illustration of an MR-safe guidewire as a continuous stripe in MRI, equivalent to the picture in X-ray imaging, is possible. The research group of Dr. Michael Bock at the German Cancer Research Center will present their newly developed powerful MR imaging technique («MR sequence») for optimized visualization of the MaRVis MR guidewires on May 12th, 2011, at the 19th Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM) in Montreal (Canada).

MaRVis Technologies GmbH, a German medical technology development company, provides to the medical community the first MR guidewires which not only possess mechanical properties equivalent to current X-ray guidewires based on metal cores but concurrently deliver illustration in MR images as physicians are used to from X-ray guided interventions. Metal cores lead to electric current and heating in MRI and therefore are dangerous. MaRVis successfully has integrated all mechanical properties of required flexibility, axial stiffness, torsion capability, stability, and tear-resistance into MR-safe guidewires devoid of a metal core. Optimized continuous doping with metal particles as MRI markers enables their visualization in MR images as a continuous black stripe equivalent to that in X-ray images. Physicians can easily and reliably follow up the position of the guidewire in the human body throughout the intervention.

For optimal imaging of the MaRVis guidewires in MRI, the medical physics research group of Dr. Michael Bock at the German Cancer Research Center in Heidelberg has developed a powerful new visualization technique («MR sequence»). This combines a conventional MR image - which displays the guidewire and body tissue in grey shades - with an overlaid image, based on the specific magnetic properties of the embedded metal particles, only representing the MR guidewire in white or coloured. Thereby, a strongly improved visualization of the various guidewire prototypes has become possible. These results constitute the basis for further integrated development of marker particle doping and MR sequences. Dr. Axel Krafft, project leader in the research group, will present the results during the 19th Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM) in Montreal (Canada) on May 12th, 2011 (program number: 3743).

Dr. Klaus Duering, CEO of MaRVis Technologies GmbH, comments: „We are extremely pleased about the cooperation with the group of Dr. Michael Bock who is an internationally renowned expert in MR sequence development. We highly appreciate his strong interest in our diverse MR marker technologies. The fundamental developments of this group have proven that our MR marker technologies can be efficiently transformed into high quality MR images of our novel medical devices. We trust in that these new MR sequences eventually will find routine application in real-time imaging of MaRVis devices during MRI-guided interventions."

About MaRVis Technologies GmbH

MaRVis Technologies GmbH is a medical technology development company owning an integrated proprietary platform technology comprising MR safe medical devices with optimized mechanical properties and magnetic resonance imaging (MRI) visualization means for application in MRI-guided interventional treatments. Proof-of-concept in animal trials with MaRVis guidewire prototypes has validated its commercial applicability. The MaRVis technology offers first-in-class flexibility and a powerful platform for the design of a large number of individual medical devices. MRI-guided interventions avoid X-ray burden and use of contrast agents and are superior to X-ray imaging for radiological interventions in respect of details of soft tissue images and additional physiological information which can be obtained in MRI.

Contact:
Dr. Klaus Duering
MaRVis Technologies GmbH
Dennewartstr. 25
52068 Aachen
Germany
Phone: +49 2234 962908
Fax: +49 2234 962907
k.duering@marvistech.com
www.marvistech.com