



Symbow Medical

Symbow Medical Technology Co., Ltd.

NEWS

Dec, 2012 No.002

## Megrez<sup>®</sup> Navigation System has been Successfully Installed in the AMIGO Suite at Harvard Medical School and Brigham & Women's Hospital

The Megrez<sup>®</sup> Navigation System developed by Symbow Medical Technology Co., Ltd. was recently successfully installed in the state-of-the-art AMIGO (Advanced Multimodality Image Guided Operating) suite at Harvard Medical School and Brigham and Women's Hospital.

AMIGO suite is an innovative surgical and interventional environment that is the clinical translational test bed of the National Center for Image-Guided Therapy (NCIGT) at Harvard Medical School and Brigham & Women's Hospital. AMIGO is an integrated operating suite with 5,700 square-foot area divided into three sterile procedural rooms in which a multidisciplinary team can treat patients with the benefit of intra-operative imaging using multiple imaging modalities. By now in AMIGO, real-time anatomical imaging modalities like X-ray and ultrasound are combined with cross sectional digital imaging systems like CT, MRI, and PET to provide more accurate and safe therapeutic procedures.

Megrez<sup>®</sup> navigation system is a unique commercialized product with true MRI-compatibility as well as offline navigation capability at present. It can provide minimally invasive surgical or interventional procedural guidance under open MRI, 1.5T or 3T close-bore MRI, CT, and PET/CT. With MRI systems, Megrez<sup>®</sup> system functions while an MRI is acquiring images. More over, Megrez<sup>®</sup> can feedback the surgical tool's position information (location and orientation) to a scanner so that MRI scans can follow the movement a surgical device. Such an interactive real-time mode provides surgeons with updated spatial relationship information between surgical tools and anatomical targets. With the help of interactive real-time navigation, procedure guidance is more accurate and safe. The Megrez<sup>®</sup> system also provides scanner-side offline navigation, where guidance is provided outside but close by a scanner, allowing for frequent in-and-out scanning-and-navigation.

By introducing the Megrez<sup>®</sup> navigation system, surgeons or interventional radiologists can perform navigated procedures under both anatomical and functional imaging guidance as well as merged multiple imaging modality guidance. The installation of Megrez<sup>®</sup> in AMIGO is definitely a plus for Harvard as the introduction of Megrez<sup>®</sup> not only satisfies the doctors' requirements on the accuracy of the minimally invasive interventional surgery, but also extends clinical applications in AMIGO.



With the Assistant of Megrez<sup>®</sup> Navigation System, Harvard doctors can now conveniently perform interventional procedures right by the 3T MRI scanner or inside the MRI bore.



Harvard experts are demonstrating the PET/CT guided therapy procedure with the assistant of Megrez<sup>®</sup> Navigation System.



Megrez<sup>®</sup> Navigation System is integrated into the AMIGO suite for multiple imaging modalities guided navigation.



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## National Center for Image Guided Therapy News: Megrez® Navigation System Installed in Harvard Medical School and Brigham & Women's Hospital AMIGO suite

'In September 2012, the state-of-the-art AMIGO (Advanced Multimodality Image Guided Operating) suite at Harvard Medical School and Brigham and Women's Hospital installed the Megrez® Navigation System of Symbow Medical Technology', reported by National Center for Image Guided Therapy, USA (<http://www.ncigt.org/pages/NewsEvents>).

According to the report, Megrez® Navigation System is the unique fully MRI compatibility compared to other installed navigation systems in AMIGO suite. The unique MRI compatible features enabled integration with the high field 3T MRI scanner as well as PET/CT scanner with the intention to support interventional guidance under both morphological and functional information in AMIGO. The system was being technically evaluated Megrez®'s accuracy, safety and efficiency by BWH scientists. The addition of this equipment may aid in the AMIGO team's efforts to fully utilize all three rooms of the suite. The use of Megrez® is expected to increase the types of procedures that can be performed in the MRI procedure room.



Optimus



Megrez® Navigation System



Megrez® CT-Compatible  
Navigation System



Megrez® MRI-Compatible  
Navigation System