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## Mediso Medical Imaging Systems introduces nanoScan \*PM the first integrated commercial whole-body preclinical PET/MRI imager

The nanoScan<sup>®PM</sup> is a revolutionary new multimodality imager providing advanced tool for PET researchers, utilizing the world's best resolution PET module combined with a compact MRI system for superb soft tissue contrast

**San Diego, USA – Sept. 7, 2011 –** Mediso Medical Imaging Systems announced today at the World Molecular Imaging Congress (WMIC) the launching of the new nanoScan PET/MRI, in vivo molecular and preclinical imager.

"The nanoScan PET/MRI system fully integrates our new cutting edge Tera-Tomo™ PET technology with the compact cryogen-free permanent MRI magnet from Aspect Imaging" said István Bagaméry, founder and CEO of Mediso. "This highly innovated unique equipment, the first commercially-available preclinical integrated PET/MRI, perfectly complements our existing preclinical portfolio and offers new imaging modality on a common platform with fully compatible workflow for NanoSPECT/CT users.

The PET subsystem, equipped with the new Tera-Tomo™ 3D reconstruction engine, performs quantitative PET studies with an unparalleled average resolution of 700 microns. Due to the advanced GPU based on the fly system matrix generation principle and the physical corrections in 3D PET reconstruction, a remarkably uniform resolution is achieved throughout the field-of-view. Using corrections for physical factors such as detector response, detector attenuation and scatter, object attenuation and scatter, random, dead time and even positron range, a quantitative three-dimensional PET reconstruction has been developed and applied by Mediso and their high level academic collaborators.



The installed nanoScan<sup>\*PM</sup> PET/MRI system at Karolinska Institute

The compact shielded MRI platform from Aspect imaging utilizes a high-performance 1T magnet with zero magnetic fringe field outside the magnet. It provides high spatial resolution of down to 100  $\mu m$ , with superb soft tissue contrast required for anatomical/morphological imaging. The permanent magnet platform provides a maintenance-free MRI solution with a small footprint and with easy, rapid installation. It is optimized to perform fast, high-throughput imaging of a variety of applications and preclinical studies.

"The high resolution and ease of use of the Aspect Imaging M2™ platform perfectly complements Mediso's cutting edge PET technology" says Uri Rapoport, Aspect Imaging's Founder and CEO. "The combination of high-resolution PET and high-performance desktop MRI will provide significant benefit to academic and pharmaceutical researchers who are looking for additional flexibility and performance from their translational imaging tools".

The nanoScan PET/MRI platform is an optimal solution for imaging and quantification in the following application areas: oncology and tumor biology, regenerative medicine, PET development of radiotracers, receptor studies in neuroscience, inflammation and immunology, infectious diseases, animal model development and phenotyping and multimodal imaging and contrast agent development.

The nanoScan PET/MRI system is designed for any facility and for use by any operator. No need any additional magnetic or RF shielding and no special site preparation required for the installation of the equipment.

The first nanoScan®PM PET/MR was installed at the prestigious Karolinska Institute in April, 2011 and is being used by Professor Christer Halldin and in the core imaging laboratories of Professor Balázs Gulyás. The nanoScan®PM PET/MRI was the optimal imaging choice for Dr. Halldin, whose research requires the highest level PET radiotracer technology along with the robust support and co-registration with high-resolution MRI images. "The nanoScan®PM combines anatomical and molecular imaging modalities using a state-of-the-art PET technology with cutting edge resolution and sensitivity and a unique user friendly MRI imaging for pre-clinical studies", says Christer Halldin, Professor, Director of Karolinska Institute PET Center.

The nanoScan® PET/MRI system is manufactured and distributed by Mediso worldwide and can be seen at the World Molecular Imaging Congress (WMIC) in San Diego, CA in Mediso's booth #202.

**About Mediso Medical Imaging Systems** 

Since 1990 the Mediso is one of the World's largest suppliers of various medical diagnostic

and research purpose, dedicated imaging devices.

Currently Mediso offers 4 imaging modalities - SPECT, PET, CT, MRI - for professionals

working in laboratories and nuclear medicine departments.

Mediso products are sold worldwide direct and through a network of distributors.

Currently Mediso offers 2 multi-modality lines:

Dominant member of the **human line** is the AnyScan® SPECT-CT-PET system, which is currently the only triple modality human diagnostic equipment, which offers the most advanced SPECT detector technology, beside a full PET ring and a diagnostic

CT.

The current flagship of the **preclinical line** is the first member of the nanoScan product family, the fully integrated PET/MRI in vivo molecular and preclinical imager. Mediso is the manufacturer of the market's leading small animal NanoSPECT/CT system, which is installed at over 80 high level academic and

pharmaceutical partners.

There are more than  $900\ \text{Mediso}$  systems operating in more than  $80\ \text{countries}$  around the

world.

For more information, please visit the Mediso web site at www.mediso.com.

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