



## **Preliminary Research Results Suggest up to 70% Reduction in Dose for Positron Emission Mammography Imaging**

SAN DIEGO, CA – August 24, 2010 – In a recent study presented at the American Association of Physicists in Medicine (AAPM) 52<sup>nd</sup> Annual Meeting, researchers at the University of Washington showed that <sup>18</sup>FDG dose for Positron Emission Mammography (PEM) may be reduced by as much as 70% without altering image quality.

PEM scanners are high-resolution breast PET systems that show the location as well as the metabolic phase of a lesion. The metabolic view assists physicians to make the optimal cancer care decision by providing an unprecedented ability to distinguish between benign and malignant lesions, what researchers term “specificity.” PEM is different than x-ray mammography in that it is currently not used as a screening modality, rather is deployed to confirm extent of disease in a patient already diagnosed with a primary breast cancer.

“We have several tools to help us make better patient care choices. Mammography is our primary screening tool. PEM is used in women with known breast cancer in order to plan treatment,” said Wendie Berg, MD, Breast Imaging Radiologist, Lutherville, MD. “Radiation for treatment of breast cancer uses doses which are roughly 5000 times higher than a diagnostic PEM study. Minimizing radiation dose is still important for any patient, and we can likely cut the dose of PEM in half, but the benefit to proper treatment exceeds the still low risk from the radiation dose of PEM.”

Dr. Lawrence MacDonald, Research Assistant Professor in the Department of Radiology at the University of Washington, and his team presented results of a study to detect lesions with very low doses of radiation using the Naviscan PEM scanner. Preliminary results using phantom images suggest that PEM lesion detection can be reduced down to approximately 3 mCi injected dose of <sup>18</sup>FDG or 3 to 4 times lower than the dose commonly used in clinical practice, while maintaining lesion detectability. These results are the basis of an ongoing clinical trial at Swedish Cancer Institute with the goal of determining the optimized dose levels of FDG required to produce high quality PEM images in patients with breast cancer.

“Naviscan believes that the radiation dose to patients who undergo PEM can be cut at least in half, if not more as suggested by the University of Washington study,” said Judy Kalinyak, MD, Medical Director, Naviscan, Inc. “Our site in Japan is already injecting 5 mCi of FDG compared to the 10 mCi in the US and a recently published abstract in *The Journal of Nuclear Medicine* further validates the reduction in dose down to 5 mCi.”



Results from a recent presentation at the Society of Nuclear Medicine on findings from an NIH-sponsored clinical study comparing PEM with breast MRI further demonstrate PEM's clinical appropriateness. This multi-site study (NIH Grant 5R44CA103102) of hundreds of women with newly diagnosed breast cancer shows that PEM demonstrated a six percent improvement in specificity at comparably high sensitivity, and also recommended fewer unnecessary biopsies. These results are particularly significant for women who cannot tolerate an MRI exam and require an alternate imaging tool. The study is slated for publication in the December issue of the journal Radiology.

**About Naviscan, Inc.**

Naviscan, founded in 1995, develops and markets compact, high-resolution PET scanners intended to provide organ-specific molecular imaging and guide radiological and surgical procedures. The Naviscan PEM scanner is currently installed and available in breast and imaging centers throughout the U.S. and other parts of the world. The Company is headquartered in San Diego, California and is the first to obtain FDA-clearance for a high-resolution PET scanner designed to image small body parts and for breast biopsy image guidance. For more information, call 1.858.587.3641 or visit [www.naviscan.com](http://www.naviscan.com)

**Contact Information**

Guillaume Bailliard  
VP, Marketing  
Naviscan, Inc.  
Tel: (858) 332-0941