Washington University in St. Louis
Office of Technology Management

# INSERT DEVICE THAT ENHANCES MR AND PET IMAGE RESOLUTION FOR MR-PET MACHINES

Tai, Yuan-Chuan

Markiewicz, Gregory

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## Background

PET-CT scanners have been widely used in the identification of tumors and localization for biopsies due to its superior ability to detect biochemical and physiological functions. However, one of the main limitations of PET-CT is the inability to visualize soft tissues, which may be important in the diagnoses of soft tissue cancers such as prostate and breast cancers. Hybrid MR-PET scanners have recently been developed to address this limitation. In addition, MR-PET has high spatial resolution and allows for the visualization of blood perfusion in neurological and cardiac conditions.

Unfortunately, one of the main challenges of MR-PET is the interference between the systems and the resulting degradation of image quality. There is a strong need in the market for an MRI-compatible PET detector to optimize image resolution.

## Technology Summary

A multi-modal surface coil that can be inserted into MR-PET scanners to enhance image resolution for both MR and PET images. The insert coil provides better intrinsic spatial resolution than existing MR-PET systems.

## Patents

US Granted