

Interventional MRI – the Next Big Thing? (and a Pathway to Breast Cancer Prevention...)



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Interview conducted by:
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CEOCFO: Mr. Harter, what is the idea behind Marvel Medtech, LLC?

Mr. Harter: Our big picture view is to transform the clinical utility of MRI, Magnetic Resonance Imaging, by enabling interventional procedures to be done interactively with real time imaging guidance. We have designed a compact robotic positioning system to work inside the bore of an MRI scanner to essentially extend the physician's reach into the bore of the scanner so that they can do procedures with the patient inside the scanner, while they are viewing things in real-time on the display screen.

"They came up with this idea of what they call an "Early Freeze Protocol". It is the same analogous treatment idea or prevention idea that I just described with colonoscopy. When we detect a suspicious lesion through a breast cancer screening exam, before we biopsy, before we try to get a cancer diagnosis; why do we not just freeze it? The Chinese have demonstrated that there is at least a 50/50 chance that if it was cancer or precancerous and we freeze it, that it will be gone forever and never come back and never spread and never develop into something that is dangerous, and the woman gets to keep her breast!" - Ray Harter

CEOCFO: How is the MRI currently being used?

Mr. Harter: Presently, an MRI is only used as a diagnostic imaging tool. The imaging procedures today are typically done by an imaging tech. The radiologist is typically not present when an MRI procedure is being done. That really short sells the imaging horsepower and the imaging capability of the MRI system. By diagnosing a disease with MR imaging, that is only half the battle. Once you detect and diagnose something you need to be able to do something about it. That is what we are enabling. It is the transformation between diagnostics and intervention. Our technology will allow the superior imaging capabilities of an MRI scanner to be used to interactively guide interventions.

CEOCFO: How does your technology work?

Mr. Harter: Our first application is for breast interventions. We have been focused for quite a while on developing a biopsy tool that would allow radiologists to do an image guided breast biopsy. We have recently received feedback that doing breast biopsy faster with MRI guidance really is not going to add a lot of clinical value. However, there is some very significant and relatively recent interest and excitement, I guess you could call it, with doing minimally invasive ablation therapy procedures for breast tumors. Now, that is not currently a standard of care. However, the idea is to detect breast tumors at a very early stage when they are very small and more amenable to the minimally invasive treatment scenarios. What has been established over the past several years is that MRI truly is the most effective imaging modality for