

Researchers Revolutionize Soft Tissue Surgery

Vanderbilt University



For more than a decade, image-guided technology has been used successfully for brain, skull, spine and joint surgery. These rigid anatomy applications have helped surgeons do more complicated procedures. Research led by Bob Galloway, M.D., of Vanderbilt University should similarly transform soft tissue surgery.

Galloway, an industry pioneer for more than 15 years, has worked closely with Vanderbilt's Office of Technology Transfer to ensure the commercialization of the image-guided soft tissue surgery platform through the creation of Pathfinder Therapeutics, founded in 2004.

“ Rigid anatomy applications have the advantage of being relatively easy to identify, image and track. Soft tissue, like the liver, is very difficult to image and track.

Galloway and other researchers at Vanderbilt have solved the problem by developing a method to collect dense surfaces of internal organs and merge those with the computerized tomography or magnetic resonance image for the patient, using a system similar to a global positioning system. Surgeons can now plan complex surgery and ensure

that their surgical tools avoid key blood vessels and reach their targets quicker.

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