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3scan

(<https://cdn.bionews-tx.com/wp-content/uploads/2013/10/knifeprism-3scan.jpg>)

The gold standard in microscope technology, developed at Texas A&M more than a decade ago, has become the starting point for a start-up's new take on what the next-generation microscope will mean to science. The famed "Knife Edge Scanning Microscope" (KESM) that Bruce McCormick developed at the Brain Networks Lab at Texas A&M University in the late 90s is inspiring 3Scan's new microscope designs.

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Share 3Scan's founder Todd Huffman is himself a veteran of TAMU, having worked as a neuroinformatics researcher at Texas A&M in 2003 and worked on the KESM himself. That knowledge and experience gained in College Station was the impetus for developing a new idea for 3Scan's own microscope. He began 3Scan in 2009, with a new vision to improve the KESM and take its performance to the next level.

Huffman's new take on the KESM is a serial sectioning-type microscope, combines several different imaging technologies, such as machine vision, inspection line optics, and CT scanning. The resulting technology is able to scan a submicron thin slice of human tissue, akin to a hair cut lengthwise 50 times. The idea of this approach is to use the technology in pathology, so as to better understand disease, and how it affects organs.

To accomplish this, 3Scan's microscope also involves a microtome (which is a precision cutting device that can create micro slices of tissue that can be 3D imaged). Each slice that the microtome produces is scanned, thus creating an incredible 3D image of an organ that 2D imaging cannot even come close to achieving.

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Mike Nace (<https://bionews-tx.com/author/mike-nace/>)

Mike Nace (<https://plus.google.com/110748194619912849051/?rel=author>) is the Editor-in-Chief of BioNewsTexas. He regularly covers corporate and political news pertaining to the Texas biotech sector.

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– Thomas Jefferson

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