

Japan approves AI-powered surgical visualisation tool Eureka ?

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Eureka ? is Japan's first software as a medical device to support surgeons' visual recognition in real time

Anaut Inc., a pioneering developer in surgical support software led by Dr Nao Kobayashi, has announced the regulatory approval of its groundbreaking medical device, 'Eureka ?'.

This first-of-its-kind software device in Japan received approval from the Ministry of Health, Labour and Welfare and is set to transform surgical practices with its advanced artificial intelligence (AI) capabilities.

Eureka ? utilises state-of-the-art AI to analyse real-time video from laparoscopic and robotic surgery, enhancing surgeons' accuracy by highlighting the dissection planes characterised by connective tissue. Connective tissue, critical in surgical navigation, acts as a key landmark during surgeries. Known variably as the "dissection plane" or "holy plane", its proper identification is crucial for safe and effective surgical outcomes.

Supported by expert-guided training data, the technology harnesses deep learning and computer vision technologies to improve surgical precision and safety.

The development of Eureka ? was made possible by a robust partnership with over 20 of Japan's largest and most prominent academic research institutions and medical university hospitals. This initiative has also received backing from significant public organisations such as the Tokyo Metropolitan Government, the New Energy and Industrial Technology Development Organization (NEDO), the Japan External Trade Organization (JETRO), Kawasaki City, and others.

Following the success in Japan of its flagship product, Surgical Vision Eureka, which is employed in educational and research settings as a non-medical device, Anaut Inc. plans to expand the applications of its technology to include gynecological and urological surgeries. With no equivalent devices currently approved for clinical use outside of Japan, Eureka ? has garnered international attention, paving the way for expansion into the US and global markets.