

## Japanese Startup 'Novius' Launches World's First 3D Medical Image Conversion Technology

Al-powered glass-free monitor converts 2D medical scans to 3D in real-time enhancing diagnostics, treatment planning, and therapeutic outcomes

TOKYO, JAPAN, May 7, 2024 /EINPresswire.com/ -- Novius today announced the launch of its innovative new Al-driven technology, N-Vision 3D, which converts imagery from two-



dimensions to three-dimensions in real time to elevate the way surgery is performed. N-Vision 3D has the potential to revolutionize imaging for endoscopes, X-ray fluoroscopy equipment, and angiography because existing 2D endoscopes (monocular camera) can still be used with N-Vision 3D without any modifications. N-Vision 3D works without any eye-tracking technology and it's possible to share the imagery with multiple audiences, not just one person who is wearing goggles, for example. The Novius-designed 3D monitor is its proprietary glass-free monitor that visualizes 3D imagery without the need for users to wear any glasses or other equipment. While 3D technology has previously relied on eye-tracking technology and has long been used in the United States, N-Vision 3D functions differently and provides unique benefits. Novius has achieved the world's fastest conversion speed through its proprietary AI technology combined with NVIDIA GeForce RTX graphics cards. The glass-free technology can convert video from 2D to 3D in just 0.008 seconds, depending on the environment. The conversion of 2D medical scans into precise, interactive 3D models enables enhanced diagnostics, treatment planning, and therapeutic outcomes, positioning it to revolutionize healthcare.

"We are thrilled to introduce N-Vision 3D to the American market, where we believe it can greatly enhance the capabilities of surgical procedures. This technology is a new perspective on surgery because modern medical 3D technology is 3DCG or 3D animation, whereas our technology works differently by combining AI, real-time, and 3D technologies," said Tomoko Fujino, CEO and Founder, Novius. "Leveraging the power of artificial intelligence, N-Vision 3D will facilitate diagnosis and the understanding of lesions that require stereoscopic interpretation and contribute to improved surgical procedures."

The usefulness of N-Vision 3D goes beyond hypotheticals, as Novius has already begun using N-Vision 3D technology for X-ray fluoroscopes and angiographies with real patients in Japan. The installation of N-Vision 3D to existing endoscopy procedures is simple and can be done by a doctor or an assistant. New software installation, additional hardware peripherals, or modifications by the manufacturer are not necessary.

N-Vision 3D (Endoscopy) packages include the following:

- Novius Glass-Free 19-inch 3D monitor (you can use 3D displays already on the market, some products are not matched/LFD display)
- N-Vision 3D software
- HDMI cable and operation manual
- NVIDIA GPU-installed GeForce RTX desktop or GeForce RTX notebook computer
- Capture card and one-year warranty

N-Vision 3D creates a sense of depth that is almost palpable. The unique curved videoscope enables a more accurate spatial understanding, which has been difficult with conventional endoscope systems. The entire image of the observed object emerges as vividly as in an open surgery. Endoscopic and laparoscopic surgery can be performed more precisely and more rapidly. N-Vision 3D can be particularly beneficial for doctors and researchers.

N-Vision 3D technology has been confirmed by Japan's Ministry of Health in Japan as a programmed medical device and a non-medical device. It is intended for use in the medical field as an Al image support system, or in the case of this technology, for data display, storage, and transfer processing. In 2021, Novius' patent-pending "real-time video conversion technology" was certified as part of the NVIDIA Inception Partner program. Novius is also a certified Intel® Alliance Partner.

Novius technology has been utilized as part of a joint research project between Novius and Japan's National Cancer Center. The objective of the project is to improve the accuracy of diagnosis by using AI technology to convert 2D fluoroscopic images of lesions into 3D in real-time, enabling the recognition of the front or back of the image and facilitating the guidance of the bronchoscope to the lesion. The end goal is to enable patients to undergo surgery sooner. In 2023, Novius was selected as one of 10 Finalists for the 31st General Assembly of the Japanese Association of Medical Sciences exposition.

Novius' proprietary Al-based technology has the potential to be transformative not only in the medical field but also in entertainment, smartphones, security, drones, geophysics, and several other industries.

Novius founder and CEO, Tomoko Fujino, can be made available for select Zoom-based video interviews with media outlets in the United States or in-person and on-camera interviews with outlets in Japan.

Novius' N-Vision 3D is available now with pricing and more information available at <a href="https://novius.co.jp/en/">https://novius.co.jp/en/</a>. Novius is also seeking investors for its latest funding round.

About Novius: Novius, Inc. was founded in 2016 in Tokyo, Japan by Ms. Tomoko Fujino. Its mission is to pioneer advanced AI solutions that rapidly transform 2D medical images into accurate 3D representations, facilitating quicker and more comprehensive insights for healthcare professionals. Committed to improving patient care, Novius strives to provide an accessible, high-fidelity 3D medical imaging system, that can augment diagnostics, treatment decisions, and surgical interventions in real-time. Novius' goal in the medical field is real-time simulation by using information obtained from angiography, CT, and MRI scans.

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