

PRESS RELEASE

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New study validates Senzime's TetraGraph waveforms using an AI-based neural network

Senzime, an industry leader in algorithm-based patient monitoring solutions, announces a new clinical study with the TetraGraph system published in the *British Journal of Anesthesia Open (BJA Open)*. The study is the first of its kind and validates TetraGraph system waveforms using an AI-based neural network with an accuracy of more than 99 percent.

The new study was performed by a research team at the University of Miami using clinical data from Mayo Clinic and the University of Debrecen to develop and validate an artificial intelligence (AI)-based convolutional neural network (CNN) that correctly identifies valid compound muscle action potentials (CMAPs) from the TetraGraph quantitative neuromuscular monitoring system.

The study used Senzime's TetraGraph system to demonstrate the feasibility of using AI to separate valid cMAPs from artifact. The CNN algorithm showed an accuracy exceeding 99.5 percent in distinguishing the TetraGraph's valid CMAPs from artifact.

"TetraGraph is well-suited for the application of AI to improve the process of achieving and maintaining deep, stable levels of neuromuscular block while minimizing the risk of underdosing and overdosing neuromuscular blocking drugs," comments Professor Richard H. Epstein, from the University of Miami, USA, the first author of the clinical study.

"The study is the first of its kind to validate TetraGraph waveforms using an AI-based neural network, demonstrating impressive accuracy. This confirms the leading quality of our innovative algorithm-powered patient monitoring technology," comments Philip Siberg, CEO of Senzime.

The study *Validation of a convolutional neural network that reliably identifies electromyographic compound motor action potentials following train-of-four stimulation: an algorithm development experimental study* has been published in *British Journal of Anesthesia Open (BJA Open)*. A related abstract was selected as one of the 12 Best Basic Science abstracts presented at the 2023 Annual Meeting of the American Society of Anesthesiologists in San Francisco, USA.

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About Senszime

Senzime is a Swedish medical device company that develops, manufactures, and markets CE- and FDA-cleared patient monitoring systems. Senszime's employees worldwide are committed to the vision of a world without anesthesia- and respiratory-related complications. The company markets an innovative portfolio of solutions, including the TetraGraph® and ExSpiron® 2Xi for real-time monitoring of neuromuscular and respiratory functions, typically under and after surgery. The goal is to help eliminate in-hospital complications, and radically reduce health care costs related to surgical and high acuity procedures.

Senzime targets a market opportunity valued more than SEK 40 billion per year, and operates with sales teams in the world's leading markets. The company's shares are listed on Nasdaq Stockholm Main Market (Nasdaq: SEZI) and cross-traded in the US on the OTCQX market (OTCQX: SNZZF). More information is available at [senzime.com](https://www.senzime.com).

Image Attachments

[TetraGraph image](#)

Attachments

[New study validates Senszime's TetraGraph waveforms using an AI-based neural network](#)