#### **Clinical trials**

At present Senzime has three ongoing Clinical Trials

- Mayo Clinic in Jacksonville, USA
- ▶ NorthShore in Chicago, USA
- University of Debrecen, Hungary

#### **Strategic alliences**

Senzime AB is continuously seeking strategic alliances and distributors. Our aim is to bring innovative, high quality products to the market. Please contact catrin.molund@senzime.com

#### About Senzime

Senzime develops unique patient-oriented monitoring systems that make it possible to assess patients' biochemical and physiological processes before, during and after surgery.

The portfolio of technologies includes bedside systems that enable automated and continuous monitoring of life-critical substances such as glucose and lactate in both blood and tissues, as well as systems to monitor patients' neuromuscular function perioperatively and in the intensive care medicine setting.

The solutions are designed to ensure maximum patient benefit, reduce complications associated with surgery and anesthesia, and decrease health care costs. Senzime operates in growing markets that in Europe and the United States are valued in excess of \$1 billion. The company's shares are listed on NASDAQ First North.

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### SENZIME

# TetraGraph

The next generation TOF-monitor

## SENZIME



#### TetraGraph

#### The next generation TOF-monitor

- ▶ The arm can be tucked under surgical drape, no thumb access required
- Less than 30 seconds start-up, no calibration needed
- Ease of use with single-use electro-sensors and no cross-contamination
- Precise & reliable information based on EMG technique

The TetraGraph system is a unique, EMG-based patient monitor that is simple to use, compact and portable, battery operated, and can aid the clinician in making decisions regarding the adequacy of neuromuscular function in real-time.

#### Technology

The technology records electrical activity, not muscle movement. Stimulation is delivered to a nerve and the TetraGraph records, measures, analyzes and reports muscle electrical activity (compound muscle action potentials, cMAPs) to determine muscle function.

The TetraGraph System is connected to the patient by single-use skin electrodes, minimizing cross-contamination between patients (vertical bacterial transmission) and enhancing ease-of-use.



#### Patient Need

Unrecognized post-operative residual neuromuscular block remains a frequent occurrence in todays' recovery rooms. Evidence indicates that current practice continues to perpetuate the status quo, in which 10-40% of patients experience postoperative residual weakness. A departure from the status quo requires small effort on our part.

Naguib and colleagues conducted a meta-analysis of 24 trials (3,375 patients) that were published between 1979 and 2005 and noted that the incidence of postoperative residual neuromuscular weakness (defined as a TOF <0.9) following the use of intermediate-acting neuromuscular blocking drugs was ~41%. The incidence of short-term critical respiratory events in



the postoperative care unit is approximately 0.8%. Thus, it is possible that >100,000 patients annually in the US alone are at risk of adverse events associated with undetected residual neuromuscular blockade." (Naguib M et al. Anaesthesia 72:16-37, 2017)

#### Alternative Technologies

The clinical applications of the TetraGraph System are varied, and they solve the limitations of other existing monitoring technologies: both acceleromyography (AMG) and kinemyography (KMG) require that the stimulated muscle be free to move. However, in a majority of surgeries (laparoscopic, bariatric, robotic, neurosurgical, orthopedic, and thoracic), unencumbered access to the patient's hand for monitoring neuromuscular function is unavailable, as the patient's arms are tucked under the surgical drapes.

In such surgeries, neuromuscular monitoring is simply not practical. In contrast, EMG monitoring with the TetraGraph is possible, since the technology records electrical activity, not muscle movement.