



University of Pécs
1367

SMART SURGICAL NEEDLE

Pressure-sensitive surgical needle for the safety of middle ear surgeries

CHALLENGE

There are millions of ear surgeries performed annually worldwide, during which the injury rate of the gustatory nerve is high, approximately 22%, causing a significant deterioration in quality of life. Currently, there is no specific protective device for this; preserving the integrity of the gustatory nerve during surgeries is unresolved.

SOLUTION

A superelastic needle with a special material composition that bends below the nerve's tearing threshold (0.4 N). Safer than traditional steel needles. The bending force threshold is adjustable, thus it can also be applied in other procedures, such as neurosurgery!

INVESTMENT HOOK

The product is a unique, currently irreplaceable, next-generation technology protected by a registered design, which eliminates the risk of nerve injury during surgeries! Scalable manufacturing, broad surgical applicability, and a university clinical background!

WE ARE SEEKING FOR

€200,000 seed investment for the development of the final TRL 9 prototype:

- clinical pilot studies, final design, welding solution, ergonomics, sterilizability, clinical application, protocol integration.

THE TEAM



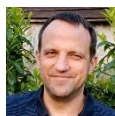
Dr. Péter Révész

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Clinical validation, medical competencies, project management



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Tradition &
Innovation



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SMART SURGICAL NEEDLE

TRADITIONAL STEEL NEEDLE



TRL 6:

**TECHNOLOGY
READINESS LEVEL**

€ 2 BILLION

(5-7% CAGR)

MARKET

REGISTERED

DESIGN

(Design patent
protection)

2029

**EXPECTED
FIRST REVENUE**

2

**PROFESSIONAL
PARTNERS**

**Effective
B2B
model**

**12 MONTHS
MARKET ENTRY**

1 KEY PERSON

Active
multidisciplinary
Team