



Multi-Channel Nerve Conduit

Improved treatment for peripheral nerve neurotrauma

Objective

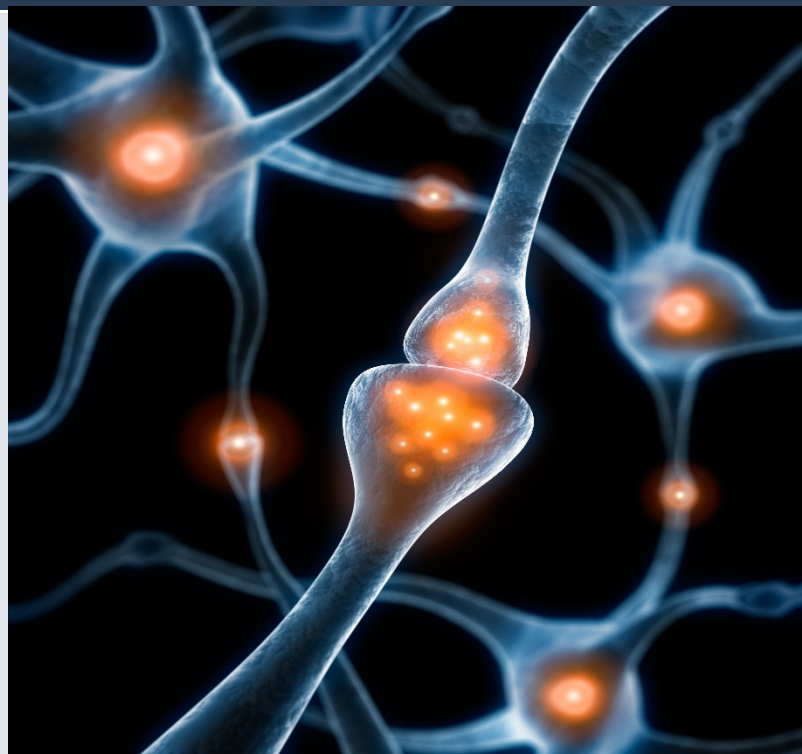
Seeking licensing or collaborative co-development.

Research and IP Status

Patented, Patent application submitted
Preclinical studies has been completed

Patents

US 13/087,0717 (Granted)
Europe Ep2380601 (Granted)



Background

An estimated 700,000 cases of peripheral nerve neurotrauma are reported in the U.S. each year, resulting in over 90,000 surgical procedures. Typical treatment options, namely autografting and allografting, tend to be invasive and subject to significant issues in terms of inadequate or unsuitable donor nerve, neuroma formation and donor site morbidity. Nerve regeneration success is also limited. Nerve conduit technology does offer significant promise, but to date has been restricted by limitations in terms of the gap they can bridge and degradation control.

Tech Overview

The biomaterials group at CÚRAM, the Centre for Research in Medical Devices at NUI Galway have developed and optimised a multi-channel conduit solution to significantly improve guidance of nerve growth. The technology is capable of repairing nerve gaps of up to 5cm in length. Coupled with the flexibility to control the rate of biodegradation, this multi-channel conduit offers the potential to improve patient outcomes and reduce recuperation times.

Applications

- Peripheral Nerve Neurotrauma

Current products on the market have significant drawbacks, including total failure of regrowth due to unsuitable donor nerve. This solution does not require donor nerve, instead the conduit guides the natural regrowth of larger sections of damaged nerve than ever before. The ability to control degradation of the conduit has not existed until now and allows for case-specific patient treatment.

- Potential to significantly improve patient outcomes and reduce recuperation times Repairs nerve gaps of up to 5cm in length
- Biodegradation control
- Capacity to link therapeutic agents

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