Neuroma Prevention Nerve Cuff

Technology Need:

In the US there are 1.7 million amputees and a quarter of these amputees are not able to complete rehabilitation, or live their lives comfortably, because of pain in their residual limb. One of the causes of that pain is neuroma. The current treatment modalities for neuroma are not definitive and have high recurrence rates. They also are used in response to neuroma that is already developed. Current treatments often result in repeated surgical resections, thus exposing the amputee to infection without assurance that neuroma will not occur again.

Solution/Offering:

Researchers at UTA have developed a method to inhibit nerve growth in order to prevent and treat neuromas. The method first uses a regenerative scaffold to lure peripheral nerves into the micro-channels of the conduit. Once the nerve endings reach a specified zone nerve sprouting is hindered until efforts by the nerve to grow are aborted. The device can be implanted at the proximal stump of the severed nerve to block the natural progression of neuroma formation. The materials used are already FDA approved for use in humans.

Value Proposition:

- Implantable device to prevent neuroma
- More final treatment of formed neuromas
- Device made of materials approved by the FDA for human use

Industrial application:

- Healthcare:
  - Neurology

Patent Status:

- PCT Application:
  - WO2014120419 A1

Current Stage:

- Prototype

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