

Micro-Leads, Inc.

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<https://www.micro-leads.com/>**SINCE ITS FOUNDING IN****2014****6 SBIR Awards****12 Employees****N/A Socioeconomic Category****2 Patents from SBIR/STTR****Solicitation:***Extensible Hermetic Neural Interface Microsystems***DARPA SBIR Sponsor****SB142-006 Topic Number****Improved Performance Primary Innovation****Greater Reliability Secondary Innovation****A Multi-Waveform Visceral Neuromodulation Device with a Translational Visceral Electrode Foundry**

Available implantable neuro devices have low resolution providing low bandwidth information telemetry systems, resulting in poor performance prostheses.

Micro-Leads has developed a high-resolution multi-waveform implantable stimulator chip and multi-scale electrodes for providing high-resolution therapy for the nerves and spinal cord. The stimulator technology allows for targeting specific areas of the skin supplied by a single spinal nerve to minimize off-target discomfort. An electrode foundry was established that provides a 2-week turnaround on custom electrodes that are available on their product catalog.

IMPACT

Increase and enhance the range of amplitude and precision for research-grade pulse generators and clinical therapy devices. The medical device seeks to improve longevity of implanted electrodes while promoting immediate clinical application in treating low-back pain.

BEYOND PHASE II

Micro-Leads was awarded a development grant totaling \$1.5M for the DARPA Bridging the Gap (ISI/BG) Program to establish an in-house manufacturing facility and develop novel electrodes for spinal implantable interface. Micro-Leads has received \$140k of commercial electrode sales in 2019. Furthermore, the company has developed a neurostimulator application-specific integrated circuit (ASIC) which will be used in their therapy device and is available for licensing/sales. Strategic partnership discussions are being held with several medical devices companies.