

Axonova Medical

Company Overview

Axonova Medical is pursuing a disruptive technology that can effectively recreate lost or damaged neural circuitry following neurological injury or disease. We believe our products will represent the centerpiece to a brand new chapter in modern medicine by repairing currently untreatable peripheral nerve, spinal cord and brain injuries as well as reversing the devastating consequences of neurodegenerative diseases such as Parkinson's disease.

Problem

Repair of the nervous system requires the restoration of connectivity. Replacement of nerve cells simply isn't sufficient if these cells aren't connected to one another or target tissues (e.g., muscle) by specialized fibers called axons. Despite the promise of various technologies in animal studies to restore neural connectivity and circuitry, the failure of these strategies in humans results from their inability to grow axons over long, clinically relevant distances as well as guide their growth to the appropriate target tissue.

Solution

There are only two known mechanisms that can grow and target axons over long, clinically relevant distances and Axonova discovered them both. These mechanisms address critical gaps in standard of care and, importantly, cannot be replicated by other products or strategies. As a result, our discoveries not only represent a paradigm shift in the field, but will serve as the basis for revolutionary products that will define new fields of study and medical practice.

Axonova's lead product will be indicated for surgical reconstruction of major peripheral nerve injury (PNI) following trauma or tumor resection (\$1.6 B annual US market). In addition to PNI, Axonova has a program in Parkinson's disease.

Team Information

Harry Ledebur PhD, President & CEO, has over 20 years of executive-level experience in biopharmaceuticals and brings considerable expertise in R&D, business development, IP, and corporate finance to Axonova.

Douglas H. Smith MD, Founder, is the Robert A. Groff Endowed Professor and Vice Chairman for Research in the Department of Neurosurgery at the University of Pennsylvania. Dr. Smith is an expert in neurotrauma and inventor of the technology.

D. Kacy Cullen PhD, Founder, is an Assistant Professor in the Department of Neurosurgery at the University of Pennsylvania. Dr. Cullen's research operates at the intersection of neurotrauma and neural engineering

Contact: Michael Dishowitz Associate, PCI Ventures University of Pennsylvania dishowit@upenn.edu 215.573.6571