BIRAD
RESEARCH & DEVELOPMENT

Novel Magnetic Gel Platform for **Transplantation**

The Problem

Mimicking the nature composition and structure of tissues is a considerable challenge in medicine. Currently this can be partially achieved with prefabricated implants.

The Solution

Prof. Shefi's team invented a novel approach of injectable biomaterials, to be incorporated directly into the injured site.

The Commercial Benefit

Advantages:

- Directly injectable without full operation
- Effectively promotes and directs neuronal growth
- Eliminates damage to patient's neurons
- Applicable beyond nervous system

Market Potential

The nerve repair market will reach USD 10B in 2022. The demand for viable solutions enjoys rising awareness, increasing incidence rate, favorable government funding and reimbursement policies, and continual technological advances offered by the key players of the industry.

Target Markets/Industries

- Nerve repair and regeneration market

Intellectual Property

Patent pending

Team: Primary Inventor

Prof. Orit Shefi is a member of the Nano Medicine Center at the Institute of Nanotechnology and Advanced Materials (BINA), and an Associate Professor in the Faculty of Engineering.

Prof. Shefi has developed novel technologies for gene and drug delivery to study neurodegenerative diseases, and neuronal and skin regeneration.

Future Research

Behavioral experiments are ongoing.

The Opportunity

We are looking for investors that are willing to support the research and commercialize this novel invention.

Keywords

- Bio-mimetic scaffolds
- Nano-fibrous constructs
- Gel filled tubes
- Injectable implants
- Parkinson
- Alzheimer