

## **About Jiksak Bioengineering**



Name	Jiksak Bioengineering Inc.
Established	Feb. 7 <sup>th</sup> , 2017
Founder	Jiro Kawada, PhD
Capital Stock	10 M yen (Cumulative Funds :1 B yen)
Head Office	322, CIBERNICS MEDICAL INNOVATION BASE-A, Tonomachi 3-25-16, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-0821, JAPAN
Staff	Board Members: 3 persons, Employee: 8 persons
Shareholders	ANRI, Cyberdyne Inc., CEJ Capital, Zeon corp. etc







 $NerveOrganoid^{TM}\\$ 



# **Nerve Allograft**





## **Executive Summary**

## Jiksak's Nerve Allograft

iPSC-derived neuronal 3D axon bundle formed from NerveOrganoid™ is able to induce nerve regeneration.

#### What's NerveOrganoid™?

A fabrication technology of 3D axon bundle is constructed in a special micro-fluidic device called Jiksak A-chip guides neural cells clusters of iPSC-derived neural cells to form 3D axon bundle.

#### What are the clinical applications?

Implantation of 3D axon bundles to treat peripheral nerve injury caused by trauma, as well as spinal cord injury and brain disease.

#### How does the 3D axon bundle work?

It enhances the recruitment of CD4+T-cells and M2 macrophages to nerve tear site, enabling accelerated angiogenesis and nerve regeneration.

## **Purpose of Our Contact**

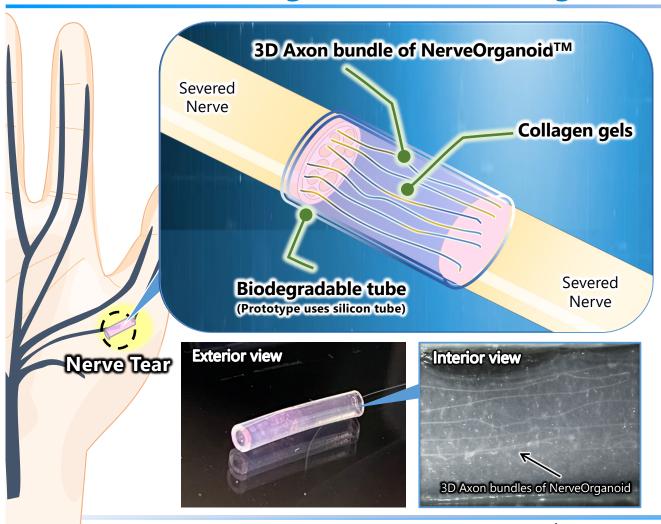
#### We are looking for collaborative partner(s) for out-licensing.

We are actively seeking broad opportunities for collaboration on Nerve Allograft based on iPSC-derived axons with neuroregenerative effects, including the exploration of different forms of transplantation and materials.



# Jiksak

# Application Illustration : **Axon-integrated Nerve Allograft**



# 1. 3D Axon bundle of NerveOrganoid<sup>™</sup> induces nerve regeneration

- Enhancement of CD4+T cells and M2 macrophages recruitment
- Obtained POC for nerve regeneration effects of 3D axon bundle in small animal model and published as a paper.
- Larger animal test started in 2023

## 2. NerveOrganoid<sup>™</sup> patented in US and JP

#### 3. Safety improvement

- NerveOrganoid<sup>™</sup> grown in sterile cultures.
- Reduced risk of tumorigenesis by cell nucleus removal during manufacturing process.
- 3D Axon bundle can be sterilized.
- 3D Axon bundles biodegrade in body post-implantation.

### For internal use

