Glue4Life

Changing the game of 3D bioprinting.

3D bioprinting is a promising technology for manufacturing living tissues and organs, which can revolutionize the diagnosis and treatment of various medical conditions in future. **Bioinks** are the materials used to produce engineered tissues with 3D printing technology. However, the challenges of the currently available bioinks limit their use in 3D bioprinting and clinical applications. **Lack of functional and clinically suitable bioinks is a major market restrain in 3D bioprinting.**

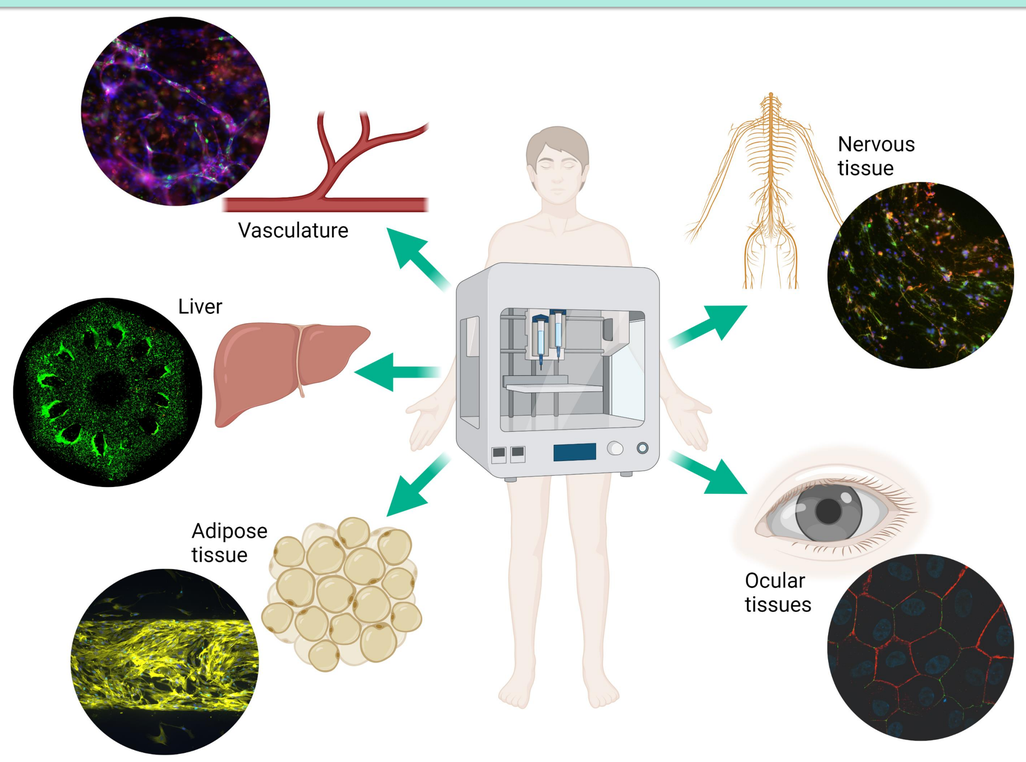

Figure 1: Glue4Life is a game-changing bioink platform for printing living human tissues. Glue4Life has been successfully used for printing multiple cell types and tissues, such as vascular, liver, nervous, adipose and ocular tissues.

TECHNOLOGY DESCRIPTION

Glue4Life is a next-generation bioink platform for 3D bioprinting of living tissues and organs. Glue4Life is a mix of natural and semisynthetic polymers with unique and tunable features. We envision to advance the development of artificial tissues and organs for future clinical applications by offering bioinks manufactured with clinically compatible components.

VALUE PROPOSITIONS

- **Manufactured using only clinically compatible components**
- **Simple printing process – no additional crosslinking steps needed**
- **Excellent biocompatibility and tissue formation after printing**
- **Tissue-adhesive, elastic and glue-like properties. Injectable.**

INTELLECTUAL PROPERTY RIGHTS

Our bioink innovation is patent pending (PCT/FI2022/050403). The IP is exclusively owned by Tampere University.

CURRENT STATE

- ✓ Preclinical development phase
- ✓ Several *in vitro* POCs for printing different tissues
- ✓ Ongoing *in vivo* experiments
- ✓ Regulatory consultation received

MARKET POTENTIAL

738.2 M€ TAM for bioinks in 2032

2.8 B€ Market for bioprinting living human tissues and organs in 2027

Clinical market segment dominating with 75.1 % market share

OUR STORY

The researchers behind Glue4Life were the first in the world to publish 3D bioprinting of human cornea mimicking structures using human stem cells. When our team moved forward in the development of bioprinting applications, we realized that the existing solutions did not support the clinical aims of our research. So, we decided to develop our own bioink. Glue4life is currently developed under Tampere University in a Research-to-Business project funded by Business Finland. Here, we focus on the commercialization of our bioink innovation and strengthening the product concept with applied research.

TEAM

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Application scientist
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3D bioprinting

Production chemist
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Polymer chemistry

BUSINESS OPPORTUNITY AND CALL TO ACTION

Glue4Life holds great commercial potential. To date we have raised 1.2 M€ in grants. We continue our journey by spinning-out a deep-tech startup from university in 2024. We are looking for investors to support us in our vision to change the game of 3D bioprinting. In addition, we are seeking for partners for the clinical development of our bioink.

GET IN TOUCH!
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