

3D BIO-PRINTING OF ARTIFICIAL BIOLOGICAL TISSUE NETWORKS

The present invention relates to a method 3D Bio-printing of artificial biological tissue networks. This technology provides a branched, self-supporting, scaffold-free artificial hollow biological tissue network for replacement of living tissue.

Potential Applications

This technology is applicable in medical, healthcare and the biotech R&D industry.

Customer Benefits

- Using live cells directly from a patient eliminates possible tissue rejection
- Self-supporting and scaffold-free tissue
- High natural mechanical strength in a short time
- High reproducibility
- Direct cell printing eliminates manual intervention
- Direct transfer of medical image to living tissue

Technology Features & Specifications

This technology provides a branched, self-supporting, scaffold-free artificial hollow biological tissue network for replacement of living tissue.

This computer-controlled 3D bio-printing technique achieves a natural mechanical strength in a shorter time, with a high reproducibility and without requiring any manual intervention.

Users can print living cells into reproducible and realistic tissue and organs without the need for supporting scaffolds. These can then be used directly for transplantation.



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Market Trends and Opportunities

The 3D printing market has seen rapid growth in recent years due to its increasing applications across different sectors. Global 3D Printing Market set to hit USD 7,240 Million by 2019.

Since 2011, interest in the 3D bio-printing technology has witnessed a huge growth. In the base scenario, it is anticipated the overall market to reach USD 73 million by 2024. This represents an annualized growth rate of 114%.

