

Uniink - Bioink for Cell Therapy

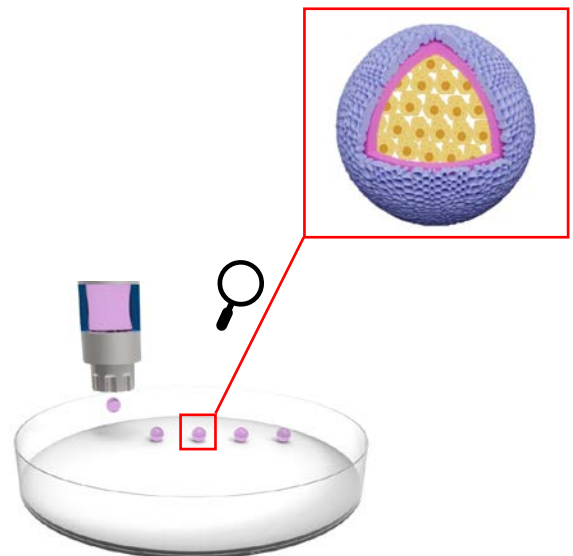
Delivering cells has never been so easy

Cell therapy has an immense therapeutic potential for the replacement or repair of damaged tissues.

The **delivery method represents the main limitation in cell therapy** causing side effects, poor cell localisation poor cell retention and survival, after transplantation, and high variability during the fabrication.

Uniink can be used to **encapsulate transplantable cell types such as pancreatic β -cell, hepatocytes**, and astrocytes as well as pools of different cells.

The encapsulation allows: cell protection from the host immune system; cell confinement and optimal diffusion of nutrients and oxygen within the body.



It is biocompatible, stable, safe, and suitable for transplantation as well as for blood infusion. Components of the extracellular matrix can be added.

Performance

High-throughput platform 80 Spheroids/minute	High cell density 3M cells Per spheroids
Long term stability 30 Days	Cost-effectiveness 0,8€ Spheroid

Advantages

Competitors	Uniink
Heterogeneity	Highly standardized
Low yield	Tailored on the patient
No cell protection	Cells are protected
Off-target	Cells stay inside bioink
Immune suppression	No immune reaction

A tool to generate cell-laden transplantable or injectable spheroids using a 3D bioprinter

Scientific Project Leader

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Intellectual Property Status

WO2021048250A1, PCT (September 2020)

National Phase in EU and US

Possibility to extend to other territories

Exploitation Plan

Licensing and co-development

Stage of Development

TRL3 - Preliminary pilot in in vivo study completed

More information: Clua-Ferré, Laura, et al., Advanced Materials Technologies (2022): 2101696

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