

# Uniink - Bioink for Cell Therapy

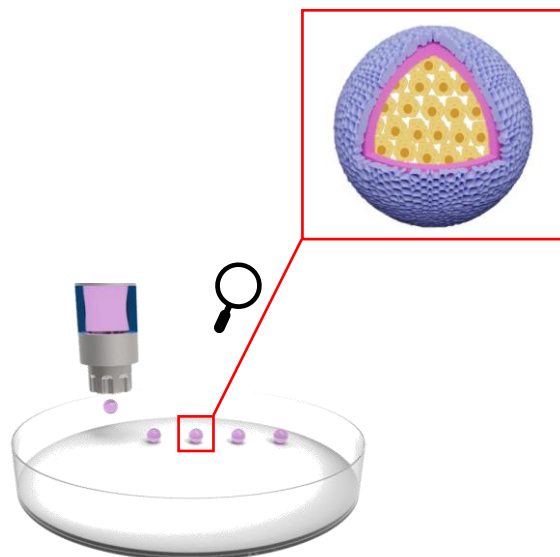
Delivering cells has never been so easy

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  $\beta$ -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 <b>80</b> Spheroids/minute	High cell density <b>3M cells</b> Per spheroids
Long term stability <b>30</b> Days	Cost-effectiveness <b>0,8€</b> 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**

### Team

Javier Ramón - Scientific Leader IBEC  
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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](#)

### Contact

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