



UNIINK: ENABLING CELL THERAPY FOR T1DM

Challenge

- Diabetes is a global health crisis, affecting millions of people worldwide and responsible of 3.4 millions of deaths annually, according to the International Diabetes Federation (IDF). Type 1 Diabetes (T1DM) occurs when the own immune system attacks and destroys the insulin-producing cells forcing patients to a lifelong-compromised external insulin management regime.
- Cell therapy has an immense therapeutic potential for the replacement of pancreatic beta cells, which are responsible of regulating blood sugar levels by producing and secreting insulin. Currently, **the major limitations cell therapies for T1DM face are immune rejection, poor cell retention & therapeutic outcome and scalable production.**
- Exogenous insulin has been the gold standard for more than 20 years, but it arrives at the liver and pancreas at concentrations lower than the physiologically necessary.
- **There is a clear need for a long-action, disease modifying therapy that replicates the function of a healthy pancreas**

Market

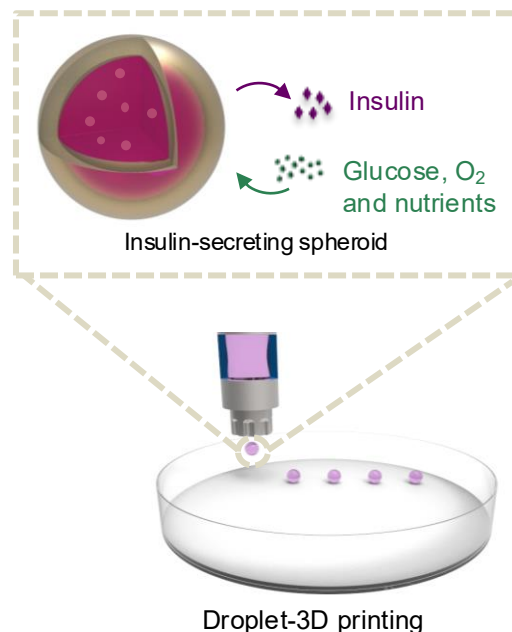
- **EUR region has the highest number of children and adolescents with T1DM (295,000)** as well as the highest incidence annually with 31,000 new cases per year.
- IDF projects that diabetes prevalence (9.2%) and number of people with diabetes (61 million) in EUR region will increase 13% by 2045.
- T1DM market is estimated at €2.6B in 2023 and will grow to €9B in 2033. **The adoption of disease-modifying therapies are driving market evolution**, with more than 10 cell therapies for T1DM being currently developed.

Asset

- Uniink is a proprietary technology that uses collagen and tannic acid to print **3D micro spheroids of encapsulated cells isolated from donors** that will be transplanted into patients and can deliver insulin in a way that is physiologically similar to the pancreas.
- Exploring in-hospital production with strategic partners such as **Vall d'Hebron Hospital**.

Competitive advantage:

- **Ensures long-term cell survival** with its propriety cell encapsulation and immune protection features.
- **Ensures scalability** over traditional islet transplantation and other therapies in development
- **Platform technology with broad applicability**



Team

Samantha Morón Ros – Senior Scientist
 Javier Ramón - Scientific Leader
 Martina Giovannella – Senior TT manager

Stage of Development

TRL4 – Technology validated in the Lab

Cryopreservation protocol established, results showed functionality and viability maintained after defreezing (2025)

In-vivo preliminary results showed **reduced glucose levels** after several weeks after transplantation (ongoing 2025-26)

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

Exploitation Plan

Spin off creation

Intellectual Property Status

WO2021048250A1 (Priority: September 2019). National phases: EU, USA, Japan (granted) and China.