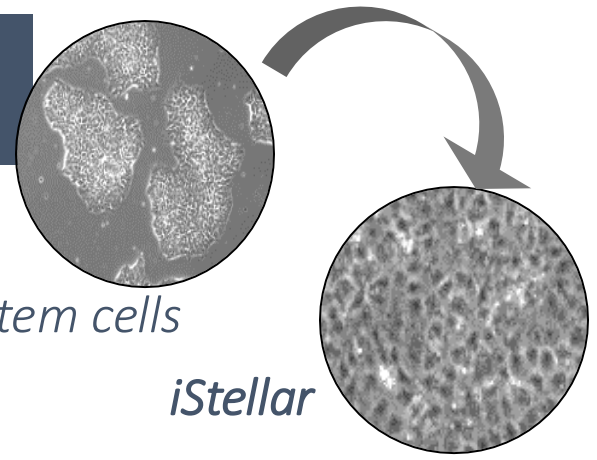
i-Stellar

Scalable iPSC-derived human hepatic stellate cells for fibrosis modeling and drug discovery.



CLINICAL NEED

Fibrosis is a major global health burden, accounting for **up to 45% of deaths in industrialized countries** and playing a key role in chronic liver disease progression. Liver fibrosis results from most chronic liver diseases and is strongly associated with morbidity and mortality, yet no reliable, standardized, and renewable source of human hepatic stellate cells (HSCs) is currently available. **Existing models** (primary cells and immortalized cell lines) **suffer from limited availability, high variability, and poor predictive** value for drug development.

SOLUTION

iStellar is a stem cell-based platform that **generates human hepatic stellate cells** (iPSC-HSCs) from induced pluripotent stem cells.

INTELLECTUAL PROPERTY

The technology relies on a patented differentiation protocol (WO2017093418) **granted** in **USA** and **Europe.**

COMPETITIVE ADVANTAGE

iStellar provides a **scalable**, **standardized**, and **patient-specific** source of **human hepatic stellate cells**, enabling more **predictive in vitro models** than existing solutions.

KEY ADVANTAGES

- ✓**Reproducible** and physiologically relevant (recapitulates primary HSCs)
- ✓Strong **response to drugs** and fibrogenic stimuli
- ✓Compatible with **2D and 3D models**
- ✓Cost-efficient and easy to use

OVERCOMES CURRENT LIMITATIONS:

- Eliminates variability and limited supply of primary cells
- Improves physiological relevance vs. immortalized lines

LOOKING FOR…

Validation **partnerships** with pharma/CROs; technology **licensing**; **co-development** projects; investment for scale-up**.**

THE TEAM

Clínic Barcelona

IDIBAPS

KU LEUVEN

Dr. Pau Sancho-Bru
Group Leader

Dr. Catherine Verfaillie
Professor emeritus

CONTACT DETAILS
Knowledge and Technology Transfer Office
innova@recerca.clinic.cat

May 2026