

High-throughput combinatorial miniaturized 3D organoid culture for personalized medicine

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Organisation

Name of the organisation Katholieke Universiteit Leuven (KUL)
Department MeBioS - Biomimetics
Specific Research Group or Service Biomimetics
Country Belgium
Geographical Area Flemish Region

SCOPE OF THE METHOD

The Method relates to	Human health
The Method is situated in	Basic Research, Translational - Applied Research
Type of method	In vitro - Ex vivo

DESCRIPTION

Method keywords

Organoid screens
High-throughput
Microfabrication
Combinatorial
Personalized medicine
Microfluidic device

Scientific area keywords

Lab-on-a-chip
Droplet-based microfluidics
Droplet sorting
Combinatorial droplet library
Personalized medicine

Method description

Design and fabrication of a method to enhance the cost-effectiveness of organoid culturing and drug screening assays by miniaturizing the cultures and reduce the required reagent volumes to the sub-nanoliter range through microfluidic techniques. By growing single or multiple organoids per microbead in a microfluidic platform, we can increase the spatiotemporal control of the organoid environment and maximize the number of assays that can be performed from a single PDRO culture.

Method status

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

Coordinated by









