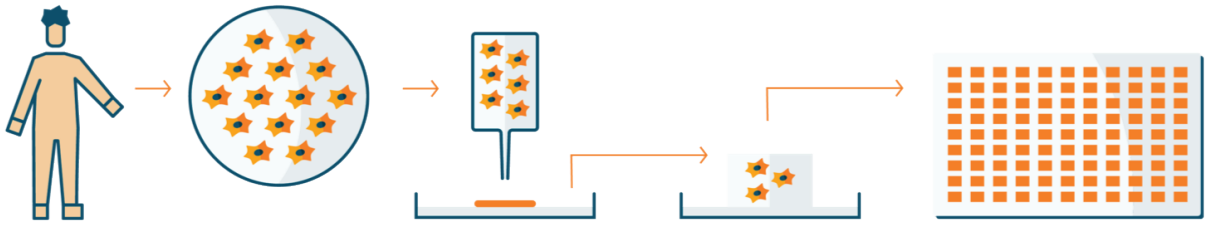
3D Bioprinting

Innovative three dimensional bioassays

In the human body, cells and tissues are in three dimensions. In a push towards better bioassays, we use the latest 3D bioprinting and culture technologies to create models that mimic organs and in vivo environments. We create full plates of micro-3D models and maximize information gained for the testing of novel drug candidates or cosmetics.



Surgery & collection

Dissociation & 2D cell culture

3D bioprinting

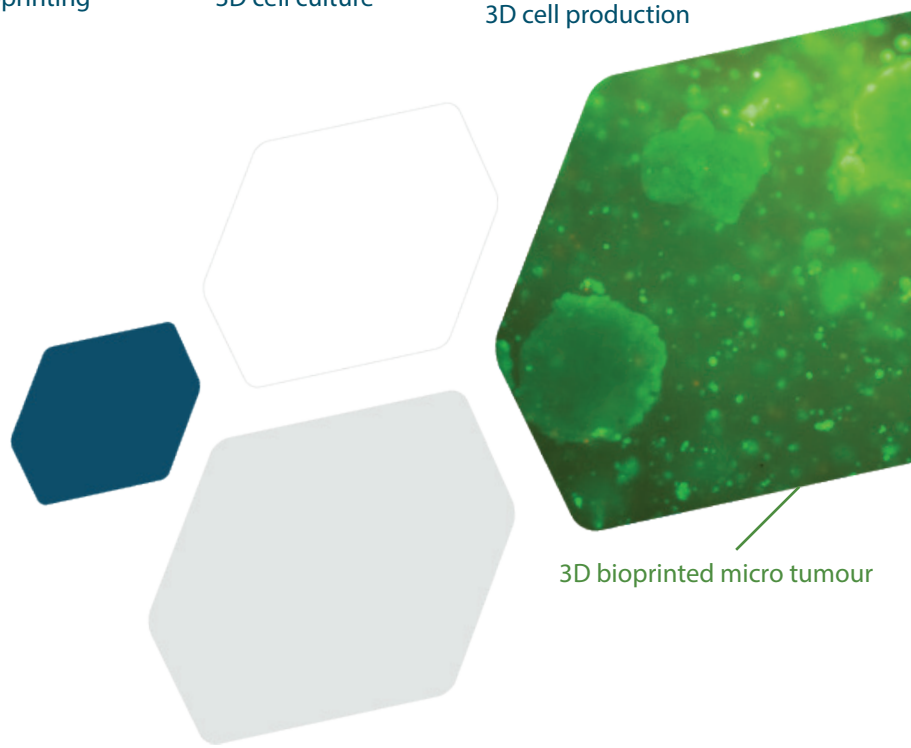
3D cell culture

High throughput 3D cell production

State-of-the-art printers

CTIBiotech is pioneering the field of human bioassays by 3D bioprinting cells and tissues. Among the large array of applications for 3D bioprinting, we are able to make automated 3D bioprinted full skin models. Test your active compounds on the latest technology with a team of experts in tissue engineering. Bioprinting enables the production of a high number of models, increasingly providing researchers with robust data.

Development of active ingredients, drugs and molecules can be powered up by testing compounds at CTIBiotech.



3D bioprinted micro tumour

3D bioprinters automate model production of skin/cancer/tissues, thus increasing throughput and robustness of pre-clinical assays. The future of bio-engineering!

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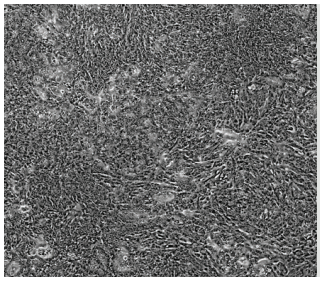
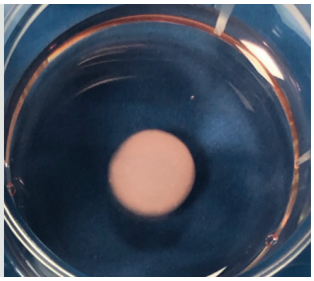
3D Bioprinting

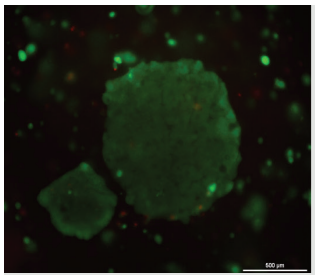
Bioassays available at CTIBiotech



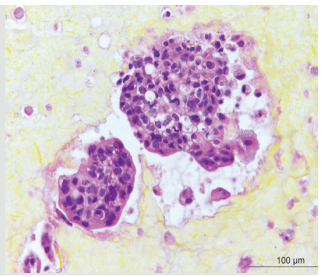


3D OncoCHIP

Launched in 2018, this regional partnership uses modern 3D printing methods to provide cancer research with increasingly advanced tools. Associating two innovative 3D bioprinting techniques and cellular models developed by CTIBiotech within the IMODI Consortium, 3D-OncoCHIP produces 3D micro-tumours for testing of anti-cancer drugs.



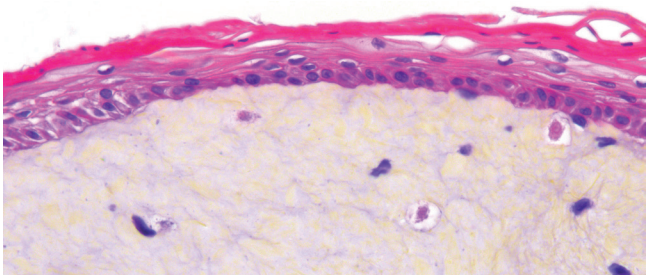
Live dead staining



HES staining

3D bioprinted microtumours

By reducing development costs and stimulating the emergence of new treatments, CTIBiotech contributes to the dynamism of oncology research to help an increasing number of patients. The three-dimensional micro-tumours contain not only cancer cells but also their micro-environment (Cancer Associated Fibroblasts and others).



HES staining

3D bioprinted skin

3D printed skin will gradually replace manual models for cosmetics and dermatological tests. This technology allows customers to create their own tailored skin model suiting specific needs. Up to 3 different cell types can be automatically printed and many more manually added for efficacy and advanced toxicity studies.

CAD of models used in 3D printing (before slicing)

Future of bio-engineering

The freedom to create shapes allows multiple innovations. The expertise of CTIBiotech in 3D bioprinting can be used in open innovation co-developments. We are at the forefront of combining future technologies for human research.
CTIBiotech collaborates with private companies and public institutions for joint research.

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