3D HUB PLATFORM

An organoïds and spheroïds screening platform for therapeutic discoveries in cancer research

canceropôle
Provence-Alpes-Côte d'Azur
le propulseur régional des recherches et innovations anticancers

3D-Hub: An organoids and spheroids platform for therapeutic discoveries in cancer research

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MARSEILLE

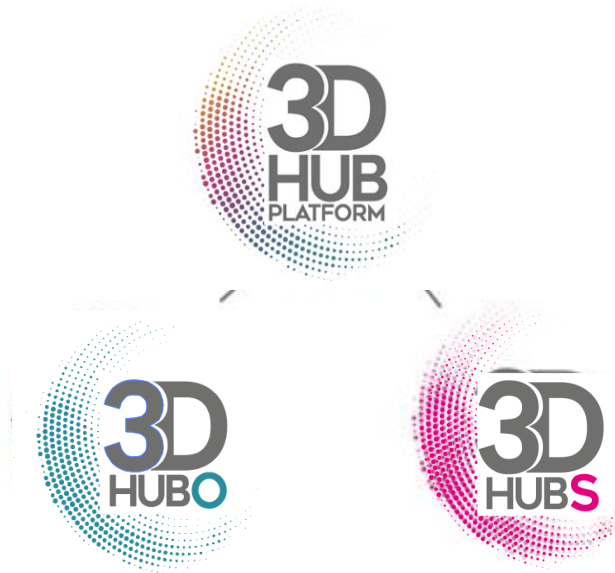**Cédric GAGGIOLI**
IRCAN, Inserm U1081
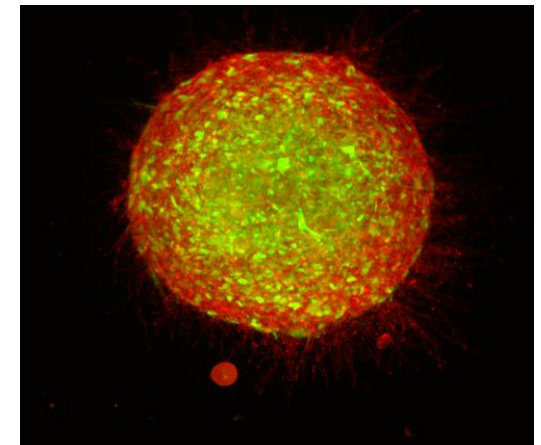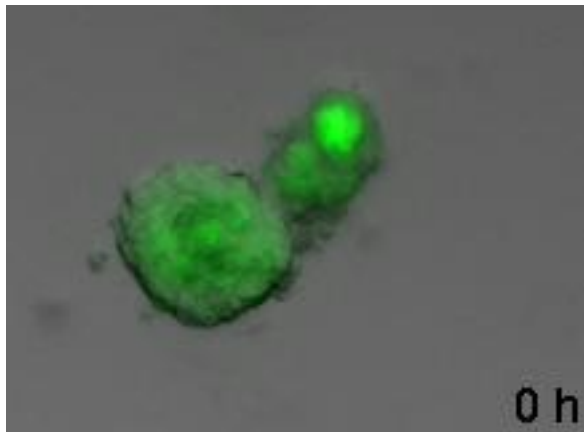NICE

Services proposed

An organoids and spheroids platform for therapeutic discoveries in cancer research

- Organoids culture from normal and tumoral tissues

- Organoids genetic modifications

- Organoids chemical sensitivity

- Training, lectures and courses

- Anti-cancer screening on spheroids and tumoroids

- Development of synthetic tumors in vitro

- Drugs test for personalized medicine
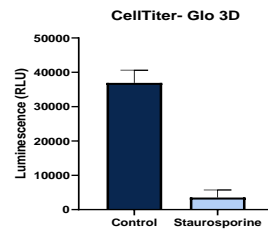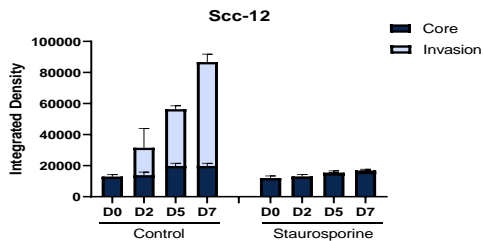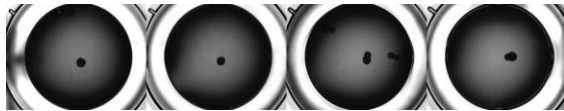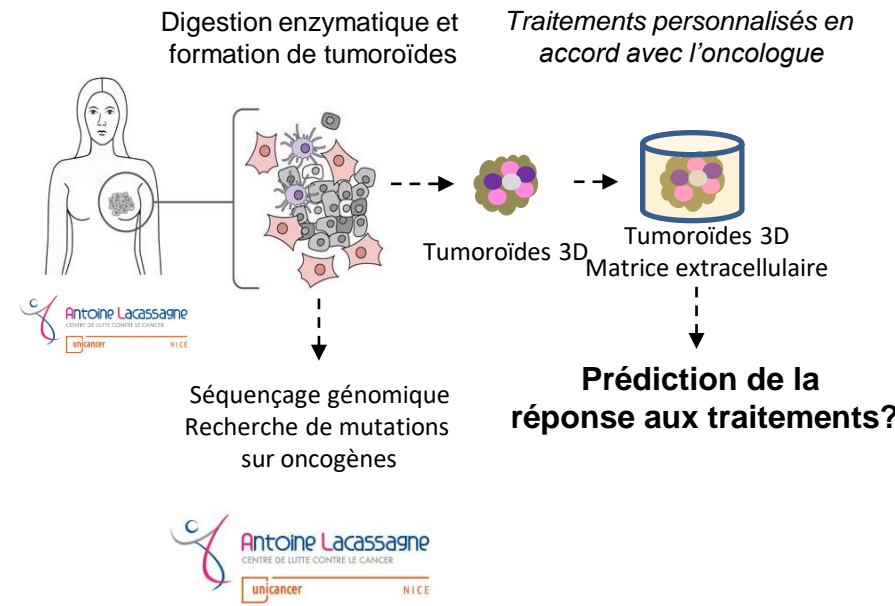
- Training, lectures and courses

3D-Hub-S: Services proposed

Culture de sphéroïdes 3D uni- et/ou multicellulaire dans une matrice extracellulaire pour la recherche en cancérologie

Culture de tumoroïdes 3D issus d'exérèses chirurgicales pour le développement de solution en médecine personnalisée

Digestion enzymatique et formation de tumoroïdes

Traitements personnalisés en accord avec l'oncologue

Tumoroïdes 3D

Tumoroïdes 3D Matrice extracellulaire

Séquençage génomique Recherche de mutations sur oncogènes

Prédiction de la réponse aux traitements?

Scc-12

Core
Invasion

Integrated Density

D0 D2 D5 D7   D0 D2 D5 D7
Control   Staurosporine

CellTiter- Glo 3D

Luminescence (RLU)

Control   Staurosporine

3D-Hub-S: CNE screening to identify inhibitors of liposarcoma growth and invasion

65 plaques

Screening CNE ; 1040 compounds

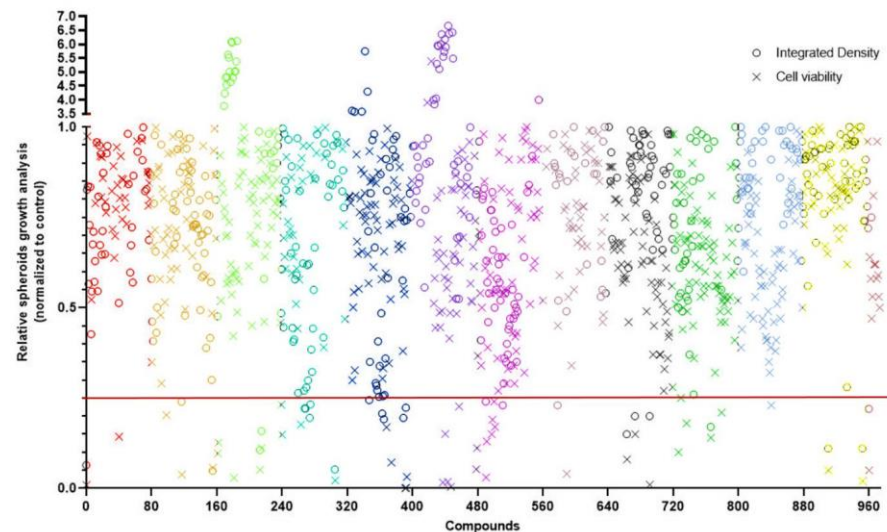imageJ quantification
&
biochemistry analysis

14 hits selected for (80% inh.) ;
- validation
- analysis
- mecanisms

3D-Hub-O: Services proposed
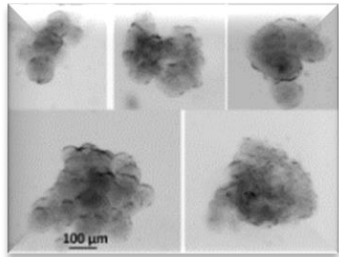
Culture (L2)
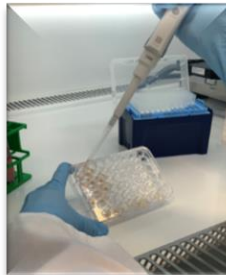
Culture media

Defining the best culture condition

Organoids

Production /Expansion
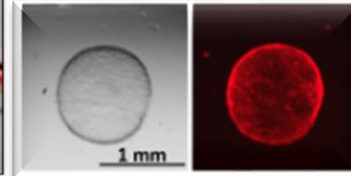

Advice Training

Biobanking

Cryopreservation

Reproductibility

Drug testing

Manipulation

Lentiviral infection

Electroporation

Specificity: Gastro-intestinal tissues,
Human and mouse breast/mammary gland...Lung in development

➢ In complementarity with Lille and Caen platforms

Equipments and staff

Scientific direction

Dr. Géraldine Guasch
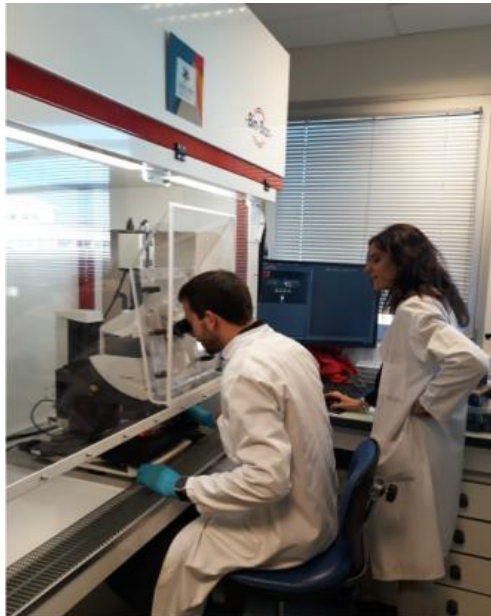
Technical direction

Dr. Véronique Chevrier

Staff

Manon Saubin, IE

**Hotte stérile
Stéréomicroscope
motorisé Leica**

**Microscope motorisé
Evos M7000 + logiciel CELESTE**

Incubateur

Electroporateur Sonidel

Equipments and staff

Scientific direction

Dr. Gaggioli Cédric, PhD, D.R.2 Inserm

Technical direction

Dr. Bourget Isabelle, I.E. Inserm

Staff

Mme Lecorgne Enora 2019 - 2022

starting 02.01.2023

Mr Odet Quentin

Salle culture L2

Thermo Fisher
Microscope motorisé à épifluorescence 4 couleurs Evos M7000

Dell
Ordinateur d'analyse (ImageJ)

How to access 3D-Hub

3D-Hub First contact
- First discussion with scientific directors
- Access form for the Canceropôle
- Validation by the CoPil

Proof of concept
- Culture / Proof of concept
- 2nd discussion with 3D-Hub Establishment of a budget
- Signature of the charte

Project completion
- 3D culture
- Analysis of the results and written report
- Oral presentation of the results
- Billing

Potential follow-up with 3D-Hub
- Confirmation of the results
- More screening/ Organ
- Formations / transfert de technologies

Access to ressources