

3D PATIENT-DERIVED organoid "ONCO-PDO" is able to recapitulate the cancer

heterogeneity of tumours found 'in-vivo'

"Personalised Medicine"

is a medical model that proposes the customisation of healthcare, with medical decisions, practices and/or products being tailored to the individual patient ("patient-specific")

Onco-PDO ANALYTICS TESTING

A biopsy of the tumor is taken from routine surgery

CELL SELECTION AND EXPANSION

> ADD DRUGS XΥΖ

A Cancer Avatar is created





3D MACROPOROUS SCAFFOLDING allows multiple different cell types and cell-to-cell interactions

PHYSIOLOGICAL PATIENT-DERIVED TUMOUR ORGANOID CELLS tumor organoids are grown within scaffolds

OBTAIN DATA ON DRUGS EFFICAC` OR ADVERSE EFFECT DATA OVER LONGER CULTURE PERIODS



Stratification of drug responses



High-throughput drug screening



VALUE PROPOSITION

Onco-PDO is potentially optimised to:

- have consistent organoid formation in multiple cancer tumours (biobank)
- functionally, cellularly, and molecularly similar to cancer tumours residing in body (physiological relevant)
- Improve preclinical testing and pharmacological compound or drug validation by assessing efficacy and safety (high-throughput screening)
- obtain drug efficacy and safety data prior to administering drugs (medical intervention)
- address inter-individual human population variability (patient-specific response)



TUMOUR AVATAR in Personalised Medicine



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