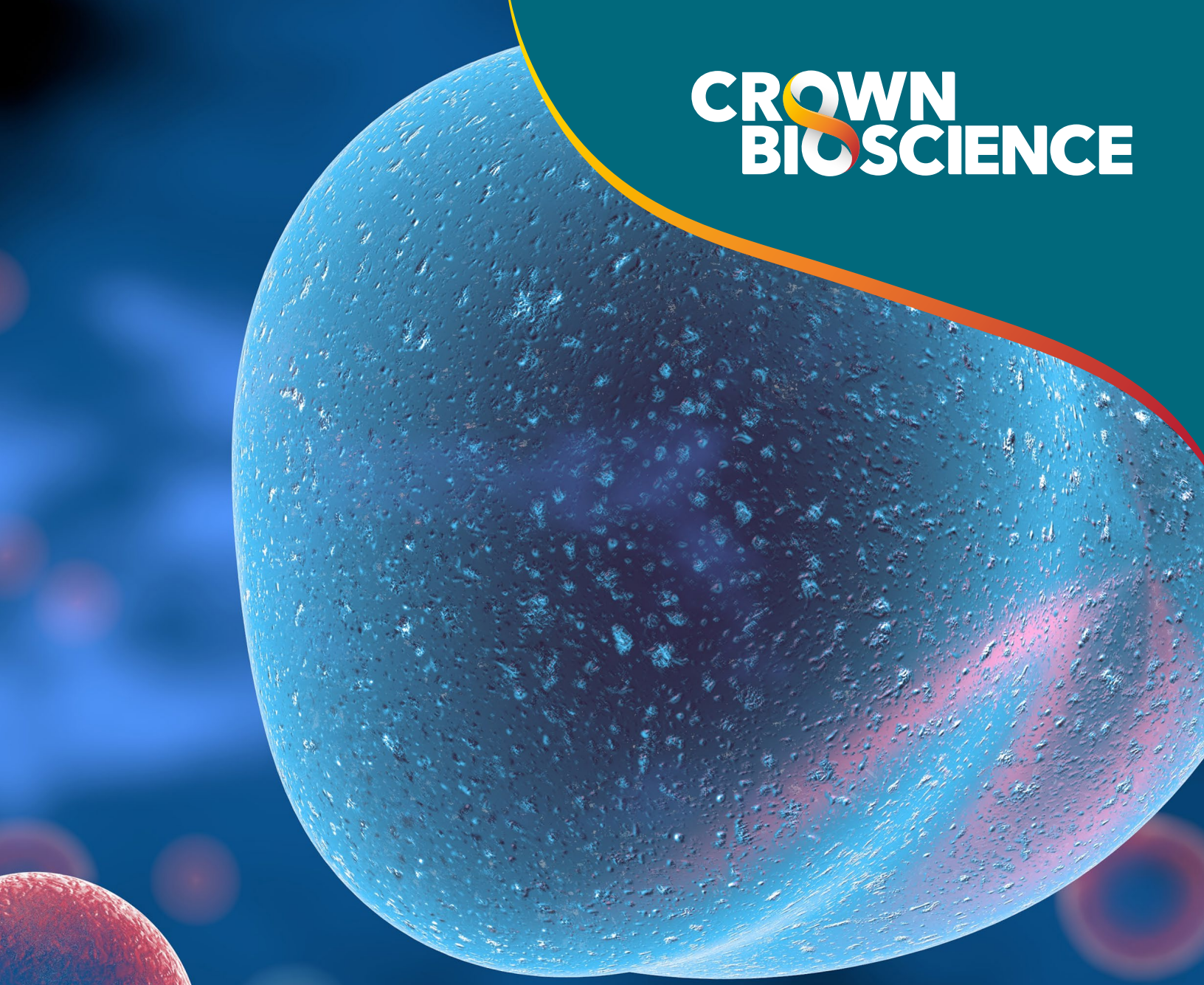
CROWN BIOSCIENCE



3D *Ex Vivo* Patient Tissue Platform

Evaluate oncology drugs in patient tumors with preserved native TME

A JSR Life Sciences Company

FACTSHEET

V1.0

Moving Oncology Models Closer to the Clinic

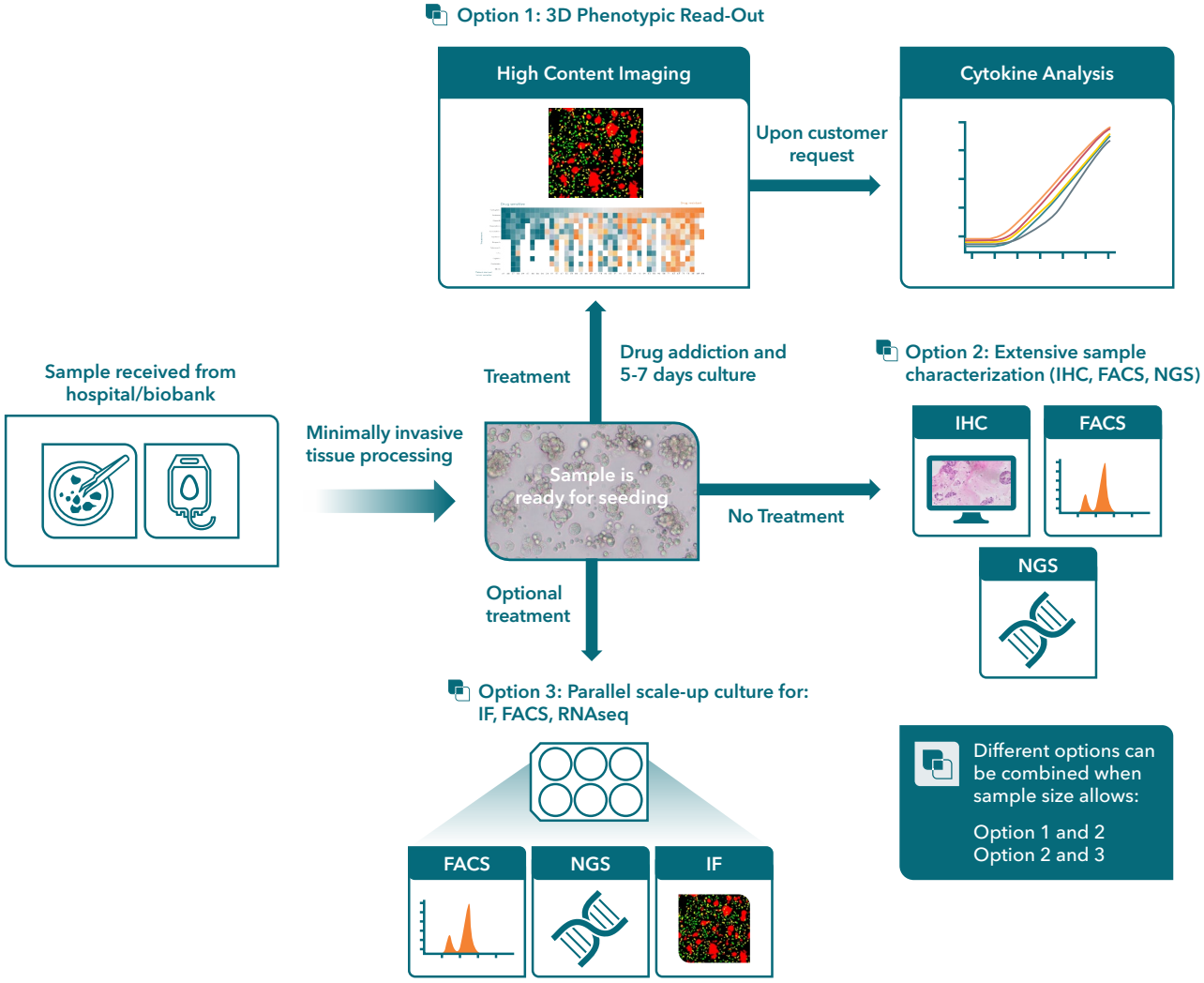
Patient-relevant translational systems that better mimic the heterogeneity and molecular/genetic complexity of human tumors are needed to:

- Understand drug effects on fresh patient tissue with native TME in 3D which is the most physiologically relevant environment preclinically
- Gain more accurate insights beyond general cell viability
- Evaluate immunotherapy effects including immune checkpoint inhibitors (ICI) with endogenous immune cells
- Obtain more data for determining whether to progress a candidate into the clinic

Introducing a Unique 3D *Ex Vivo* Patient Tissue Platform

Make better informed decisions about progressing your oncology and immuno-oncology therapeutic candidates with the most patient-relevant *ex vivo* system available.

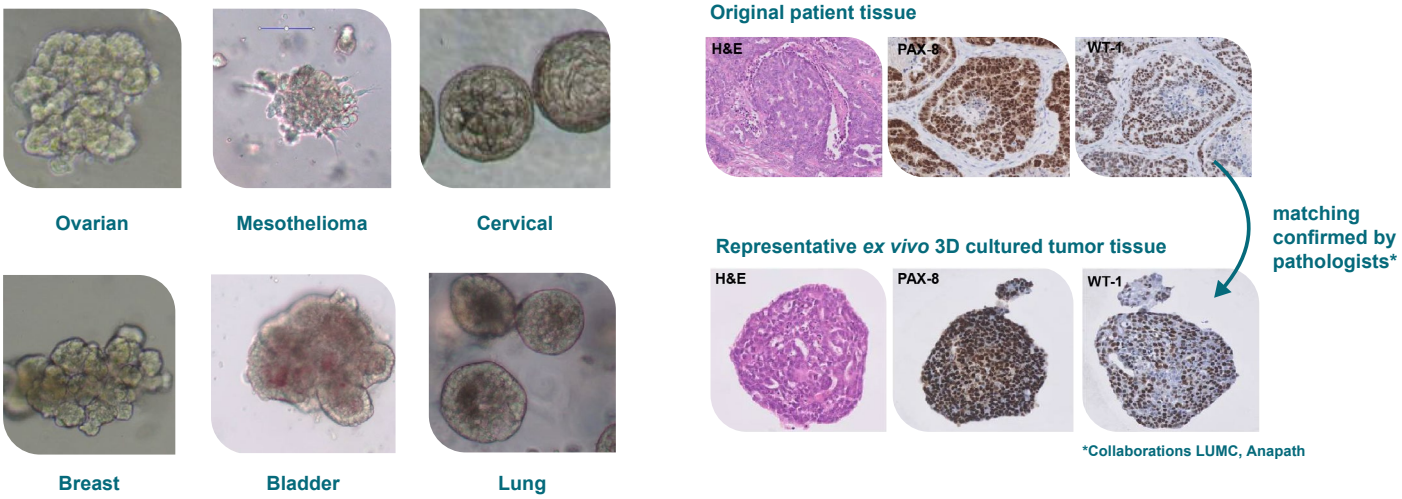
- From patients to assay plate within 24 hours
- Preserves native TME with endogenous immune cells, fibroblasts, and other stromal components
- Patient-specific plate: 50-300 patient tumor tissues directly seeded in hydrogel matrix in 384-well format
- Mono- and combination therapy assessment, including ICI evaluation *in vitro*
- Additional sample characterization available through flow cytometry, IHC, cytokine analysis, and next generation sequencing



Key advantages:

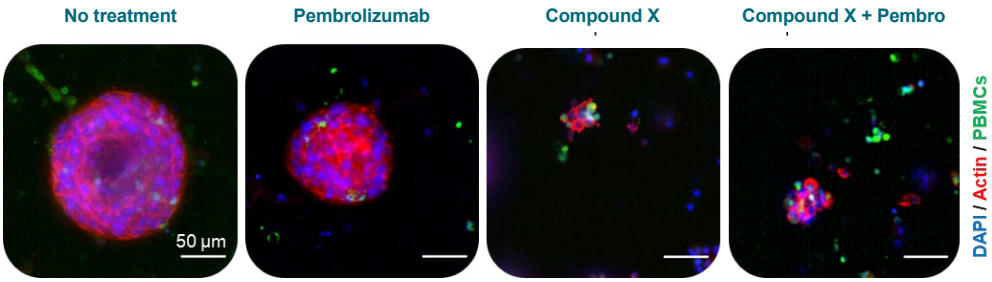
- **Physiologically Relevant 3D Models**
  Leveraging fresh patient tumors with endogenous immune cells, fibroblasts, and stromal components preserving the native TME, sourced through qualified tumor tissue providers
- **High-Throughput Platform**
  Enable efficient combination and dosing regimen evaluations
- **Multiple Read-outs**
  Select from a variety of readouts including high content imaging for efficient combination and dosing regimen evaluations, and flow cytometry for in depth evaluation of the immune population.
- **Accurate Results**
  Tumor killing and immune cell proliferation are accurately measured via phenotypic analysis to support important R&D decisions

Preserving Patient Tumor Biology



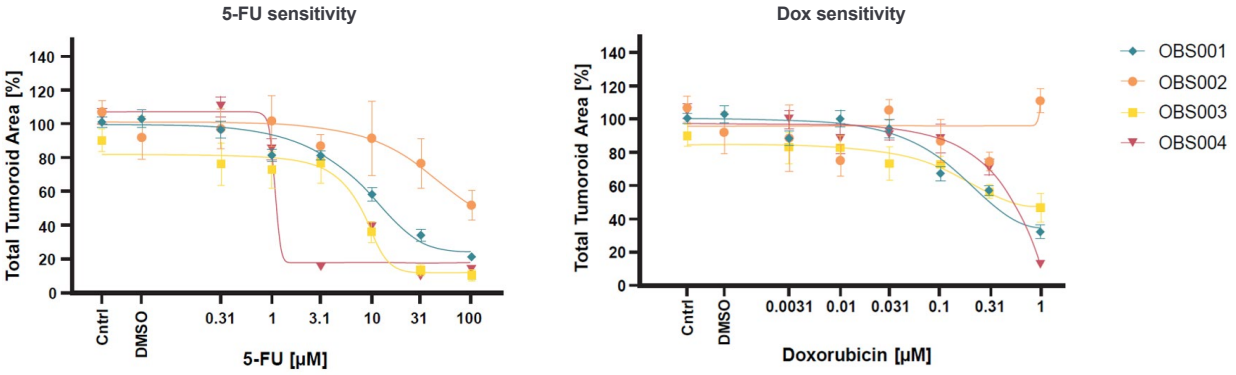
Patient tissues supplied by Vitroscan
Ex vivo testing protocols established for a wide range of solid tumors representing patient tumor biology

Evaluating Combination Treatments With Autologous Cocultures



High resolution images of the effect of tumor-targeting compounds combined with autologous PBMCs on ex vivo tissue isolated from resected NSCLC tumors.

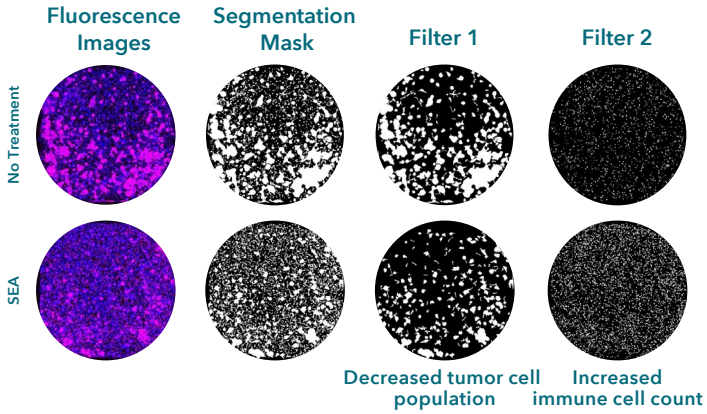
Assessing Differential Responses to Standard of Care in Patients



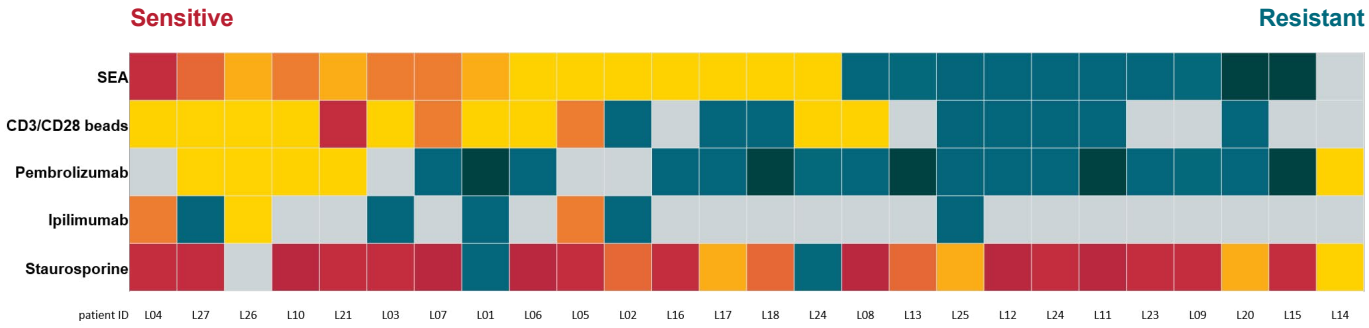
Concentration-dependent tumor killing response to chemotherapeutic drugs 5-FU and doxorubicin, observed in ex vivo tumor tissue isolated from breast cancer patient

Discriminating Therapeutic Effects On Tumor and Immune Cell Populations

- Dissect different cell populations within samples by separating tumoroids by size
- Identify big tumor clusters versus immune cells
- Assess tumor killing activity and immune cell proliferation using phenotypic analysis

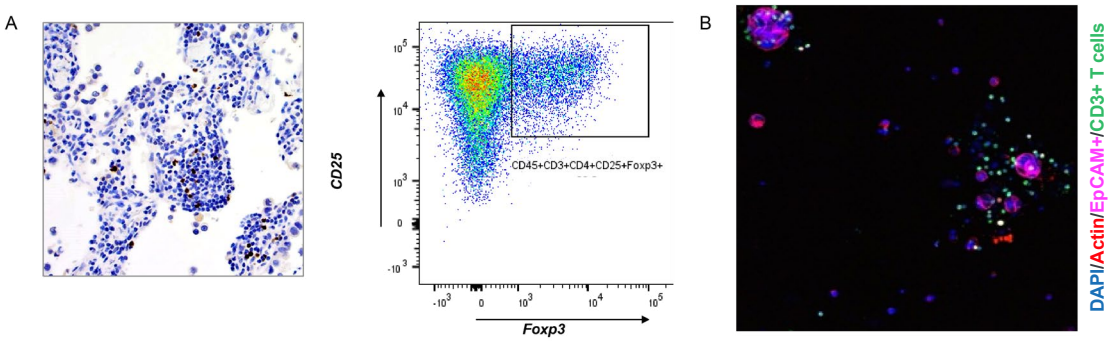


Reporting on Immunotherapy Responses with Phenotypic Readouts



25 NSCLC samples response to ICI correlates with clinical data, with 20% of the samples responding to treatment

Defining Immune Niche Composition



A. Identification of clinically relevant immunosuppressive Tregs using IHC (FOXP3) and Flow cytometry (CD45+CD3+CD4+CD25+FOXP3+) in a fresh *ex vivo* sample B Detection of EpCAM+ tumor clusters and CD3+ single cells by immunofluorescence in *ex vivo* sample after 6 days in culture

Get in touch

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