



“ Patient-derived samples are very precious. The Cellbox has proven to be the perfect portable incubator to ensure the safe transport of Sarcoma 3D Cultures across borders.

THE PROJECT

Patient-derived samples are particularly sensitive to freeze-thaw cycles. For a drug screening project using sarcoma 3D cultures provided by collaborators, SUN bioscience chose to trust Cellbox. Samples travelled by train from Lyon, where they were first prepared on 96 well plates, to Lausanne, where they would then be transferred to SUN bioscience’s Gri3D® plates.

images, it was concluded that the transport had been successful. Upon arrival, cultures were unloaded to a stationary incubator for an overnight recovery. Prior to the experiment, viability was calculated to be at 90%, further confirming the stability of the cultures during transport. Sarcoma 3D cultures were then seeded as single cells on Gri3D® 96-well imaging bottom 600 µm microwell plates with 55 microcavities per well. Cells aggregated homogenously and formed spheroids that were ready for compound exposure and toxicity assessment using a Live/Dead assay. Gambogic acid was used as a dead control and showed expected loss in viability. Cellbox enabled experiments to be performed across countries on precious samples without needing to cryopreserve them.

THE OUTCOME

The survival rate and state of the cells was essential for achieving robust results. The quality of the cultures was thus evaluated by obtaining brightfield images before and after shipment. After comparing the brightfield

Transporting Patient-derived Sarcoma 3D Cultures.

Cellbox Solutions

SUN bioscience is an innovator of organoid technologies world-wide. Organoids are powerful human *in vitro* models for translational research and assessment of pharmaceutical efficacy and toxicity early on in drug development. These models have a higher predictive value compared to laboratory animals and conventional cell culture models. However, organoid culture methods fail to address scalability and reproducibility, thus hindering their industrialisation. SUN bioscience’s flagship product, Gri3D®, features a customisable high- throughput hydrogel-based microwell platform to standardize organoids.

SUN Bioscience SA

