AIM Biotech offers an easy-to-use, modular platform for incorporating 3D cell culture into your research.

Different stages in metastasis can be modelled in the chips, depending on the arrangement of cancer cells and other cocultured cell types e.g. endothelial cells and stromal cells.

New Dimension • Novel Insights
Cancer Cell Metastasis

Metastasis is a multi-stage event that involves dissemination/local invasion, intravasation and extravasation of cancer cells. Each event can be modelled separately in AIM 3D Cell Culture Chips.

The entry of tumor cells into the circulatory system through intravasation is a critical step in metastasis. AIM chips allow the creation of an endothelial monolayer adjacent to a tumor microenvironment, which can then be used as a model for cancer cell intravasation.

Cancer spheroid dispersion assays are used to model the epithelial-mesenchymal transition (EMT) that occurs in the early stages of cancer metastasis. Cancer spheroids can be seeded in the 3D hydrogel region of AIM chips and co-cultured with other cell types (such as endothelial cells) to mimic the tumor microenvironment more accurately.

The complex process of extravasation can be emulated in vitro by using AIM 3D Cell Culture Chips. AIM chips provide a more physiologically relevant microenvironment by offering users greater control over the biochemical & biophysical factors critical to extravasation.

References