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Influence of the Peritoneal Metastatic Microenvironment on Interstitial Permeability

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Advancing Innovative Therapies for Cancers That Invade the Peritoneum and the Pleura



I do not have any relevant financial relationships.

This presentation and/or comments will provide a balanced, non-promotional, and evidence-based approach to all diagnostic, therapeutic and/or research related content.





Biophysical properties of TME

Stromal biophysical properties of solid tumors affect the solid tumors response to therapy.



Kozlova et al. Trends Pharmacol. Sci. 2020; 41(3)





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Tumor tissue permeability

A measure of fluid flux across a tissue in response to an external stimulus (e.g. pressure).







K vs TME

The composition of tumor ECM defines macro-scale parameters such as K:









Method: Sample preparation

Ovarian peritoneal metastases were harvested, sliced, and punched into circular discs with a diameter of 12 mm and a thickness of 1 mm.













Method: Quantitative histology







Results: heterogeneity of K







Results: Fiber density







Results: Fibroblast density







Results: Cell density





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Results: Fiber density vs K









Results: Fibroblast density vs K









Results: Cell density vs K









Conclusion





