**PROJECT RESUME**

**TITLE:** Assessment of cell-mediated collagen remodelling in pancreatic cancer using label-free imaging

Pancreatic cancer is one of the most deadly cancers. This is partly due to the fact that pancreatic cancer tumours are stiffer and contain more collagen than any other solid tumour. This collagen forms a mesh-like barrier surrounding the tumour cells which can prevent drug access to promote drug resistance. Cancer cells also sense the stiff collagen which can provide routes for cancer cells to migrate out of the tumour and metastasise elsewhere in the body. This project will develop a method for the assessment of cellular interaction with collagen. Using an imaging method called confocal reflectance microscopy, it is possible to quantify collagen organisation. To assess how the ability of cells to stick to collagen affects collagen organisation, pancreatic cells will be cultured within collagen gel and remodelling of the collagen monitored. This work will improve the assessment of potential therapies targeting the dense collagen matrix in pancreatic cancer

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