**PROJECT RESUME**

**TITLE:** How do changes to collagen in the extracellular matrix of osteosarcomas affect cell behaviour

Osteosarcoma is a type of bone cancer that mainly affects children and young adults. Osteosarcoma is a highly aggressive cancer that can spread to other parts of the body and is often resistant to chemotherapy. The project explores the extracellular matrix (ECM), a network of proteins and molecules surrounding cells that provide support and influence cell behaviour. Changes in the ECM have been observed as cells become cancerous.

Collagens are an important component of ECM throughout the human body, and it is known that changes in collagen composition and organization can promote tumour progression. The study aims to investigate how changes in the ECM of osteosarcoma cells affect cell adhesion and invasion.

To test this hypothesis, human bone cells will be grown in culture alongside various types of collagens, and the differences in cell behaviour and proliferation will be studied. Understanding the impact of ECM changes on osteosarcoma progression could lead to the development of new treatment strategies for this aggressive cancer.

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