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PAPPA as a Potential Tissue Engineering Therapy

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Abstract

Understanding the function of PAPP-A in bone formation may lead to novel therapies for a variety of ailments including Coronary Heart Disease, birth defects associated with Down's Syndrome and bone defects. As elevated levels of PAPP-A are localized to atherosclerotic plaques, it is possible that PAPP-A functions as a regulator of the aberrant bone-related proteins that are also present in these plaques. An important avenue of research includes elucidating the regulatory mechanisms of PAPP-A activation and downstream effects of PAPP-A signaling. The overall theme of this project is to develop a further understanding of the mechanism(s) by which PAPP-A regulates bone differentiation angiogenesis and provide further significance for the consideration of PAPP-A as a therapeutic agent.