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TITLE: Human Endothelial Progenitor Cells (EPCs) role in Tumor Angiogenesis.

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ABSTRACT BODY: Human Endothelial progenitor cells (EPCs) isolated from peripheral blood have the following CD34, VEGFR-2, or AC 133 (CD133) and Aldehyde dehydrogenase antigen-positive cells, which may home to site of neo-vascularization and differentiate into endothelial cells. Endothelial cells contribute to tumor angiogenesis, and can originate from sprouting from neighboring pre-existing vessels. The bone marrow-derived circulating EPCs can contribute to tumor angiogenesis and growth of certain tumors. In this study we observed EPCs labeled with GFP contribute to breast, brain and prostate cancer tumor angiogenesis in mouse tumor explants. This study confirms the EPCs play a major role in tumor angiogenesis in breast, brain and prostate cancers as indicated in the tumor explants.

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