# Scientists identify growth factor as possible cancer drug target

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To grow and spread, tumors need new blood vessels, a process called angiogenesis. One growth factor that causes angiogenesis has been identified - vascular endothelial growth factor or VEGF - and drugs to inhibit VEGF are already in use. But not all tumors respond to the therapy initially or over the long term. Thus new growth factors need to be identified to aid in developing the next generation of angiogenesis inhibitors.

Scientists at the UNC Lineberger Comprehensive Cancer Center report finding a new angiogenesis protein, SFRP2, found in the blood vessels of numerous tumor sites, including breast prostate, lung, pancreas, ovarian, colon, kidney tumors, and angiosarcomas. The scientists found that SFRP2 is a potent stimulator of angiogenesis. This protein may be a favorable target for inhibiting angiogenesis which would then "starve" the tumor of its blood supply, thus destroying the cancer.

"The discovery that SFRP2 stimulates angiogenesis and is present in blood vessels of a wide variety of tumors provides us with a new target for drug design," said Nancy Klauber-DeMore, M.D., senior author. The study was published online in the journal Cancer Research. Klauber-DeMore is associate professor of surgery and a member of UNC Lineberger Comprehensive Cancer Center.

Based on the UNC-led team's understanding of how this protein works in the blood vessels, scientists successfully utilized a drug, tacrolimus, which is commonly used to prevent organ transplant rejection, to inhibit the growth of angiosarcoma in pre-clinical studies. Angiosarcoma is a highly aggressive cancer that begins in the cells lining the blood or lymph vessels for which options for therapy are limited.

Source: University of North Carolina School of Medicine (news : web)