

Runner-up Technology
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Human Protein Tissue Inhibitor of Peptides

Anti-angiogenic therapy is a recent approach in cancer therapeutics targeting the formation of blood vessels that are necessary for tumor growth. Recently, the anti-angiogenic molecule bevacizumab (Avastin) has gained approval from the FDA for the first-line treatment of metastatic colon cancer in combination with standard chemotherapy.

Human protein tissue inhibitor of metalloproteinases-2 (TIMP-2) has been shown to inhibit angiogenesis *in vivo* independent of metalloproteinase inhibition. This technology discloses new peptide sequences derived from TIMP-2. They retain their *in vivo* anti-angiogenic property acting via the same mechanism as TIMP-2 and some of them have significantly higher activity than TIMP-2. Anti-angiogenic peptidomimetics based on this technology can be developed for the treatment of angiogenesis associated diseases.

Data from both experimental studies have demonstrated the effectiveness of the current technology.

Anti-angiogenic therapy shows promise of treating cancer without its cytotoxic side-effects that are associated with chemotherapy.

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