



Use of Peptides of Syndecan-1 to Inhibit Angiogenesis

[View U.S. Patent No. 9,522,944 in PDF format.](#)

WARF: P06390US02

Inventors: Alan Rapraeger, DeannaLee Beauvais

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in a method of using a novel peptide from the extracellular domain of syndecan-1 to inhibit angiogenesis.

Overview

Syndecans, a highly conserved family of four transmembrane heparan sulfate proteoglycans, bind a variety of extracellular matrix ligands, including fibronectin, laminin and vitronectin. Syndecan-1 serves as an important regulator of $\alpha\beta3$ and $\alpha\beta5$ integrins, which in turn, are key regulators of adhesion and signaling in numerous biological processes, including cell migration, metastasis and angiogenesis.

The Invention

UW–Madison researchers have developed a method of using a novel peptide from the extracellular domain of syndecan-1 to inhibit angiogenesis. The peptide interferes with the formation of new blood vessels by blocking the activation of $\alpha\beta3$ and $\alpha\beta5$ integrins. Recent *in vivo* mouse data shows that this peptide successfully inhibits angiogenesis and reduces tumor size without adverse side effects.

Applications

- Treatment of cancer and other diseases characterized by angiogenesis, including atherosclerosis, diabetic retinopathy, pyogenic granulomas, psoriasis, endometriosis, pre-eclampsia and rheumatoid arthritis

Key Benefits

- Highly specific and potent
- Because inhibiting $\alpha\beta3$ and $\alpha\beta5$ integrin activation results in the inhibition of cell adhesion, migration, metastasis, survival and/or proliferation, in addition to angiogenesis, this peptide is useful in the treatment of cancer.

Additional Information

For More Information About the Inventors

- [Alan Rapraeger](#)

Related Intellectual Property

- [View Divisional Patent in PDF format.](#)
- [View Continuation Patent in PDF format.](#)

We use cookies on this site to enhance your experience and improve our marketing efforts. By continuing to browse without changing your browser settings to block or delete cookies, you agree to the storing of cookies and related technologies on your device. [See our privacy policy.](#)

Tech Fields

- [Therapeutics & Vaccines : Oncology.](#)

OK



For current licensing status, please contact Andy DeTienne at adetienne@warf.org or 608-960-9857

We use cookies on this site to enhance your experience and improve our marketing efforts. By continuing to browse without changing your browser settings to block or delete cookies, you agree to the storing of cookies and related technologies on your device. [See our privacy policy.](#)

OK



WARF
Wisconsin Alumni Research Foundation

| info@warf.org | 608.960.9850