

# Method of Improving Anti-angiogenic Therapy Efficacy

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## BACKGROUND

Current anti-angiogenic therapies for the treatment of cancer are a rapidly growing market led by Genentech's Avastin® (bevacizumab). Avastin® and other anti-angiogenic therapies work by preventing new blood vessel formation, thus starving tumor cells of glucose and oxygen. However, due to rapid development of resistance, Avastin® has shown only modest increases in overall survival of cancer patients. Therefore, there is a significant need for therapies which can synergize with Avastin® and other anti-angiogenic agents to significantly increase patient survival.

## TECHNOLOGY DESCRIPTION

UCSF investigators have identified a major mechanism of antiangiogenic resistance. This target is involved in multiple factors which contribute to therapeutic evasion including invasion, proliferation, survival signaling, and a distinct role in angiogenesis. Inhibition of this target by a monoclonal antibody is shown to reduce the growth of certain cancer cells in vitro including Avastin® resistant tumor cells derived from patient specimens.

## APPLICATIONS

In addition to anti-angiogenic therapy in multiple cancer indications (including breast, colon, lung, liver and kidney) antibodies and small molecules against this target can be used for imaging and diagnostic purposes.

## ADVANTAGES

- Inhibition of this target may potentially synergize with current anti-angiogenic therapies by suppressing multiple mechanisms of resistance in cancer cells

## RELATED MATERIALS

## INVENTOR INFORMATION

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	11,185,585	11/30/2021	2011-082
United States Of America	Published Application	20140079637	03/20/2014	2011-082

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## OTHER INFORMATION

### KEYWORDS

angiogenesis, cancer

### CATEGORIZED AS

- ▶ **Medical**
  - ▶ Diagnostics
  - ▶ Disease: Cancer
  - ▶ Imaging

### RELATED CASES

2011-082-0

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