Srpx2 - a Novel Mediator of Angiogenesis

Angiogenesis describes the formation of new vasculature from pre-existing blood vessels. This process is required for reproduction and wound healing under normal physiological conditions and it is essential for tumor growth, retinopathy and other pathologies. Therapeutics targeting angiogenesis including Avastin have become blockbuster drugs due to their efficacy. Nevertheless, current therapeutics are not able to cure cancer in all patients and are associated with substantial side effects.

Prof. Beat Imhof and his team have oriented their research towards milder pruning of angiogenic vessels with the hopes to reduce side effects associated with current anti-angiogenic therapeutics including the risk for malignancy and metastasis. They have identified a novel mediator of angiogenesis, Srpx2, which regulates endothelial cell migration and tube formation, making Srpx2 an ideal therapeutic target. Indeed, treatment of mice with blocking antibodies against Srpx2 reduces angiogenesis and tumor growth (see inset below). There were no side effects observed in the treated animals. The group is now developing monoclonal antibodies and siRNA to Srpx2 for characterization in human cells.

Development stage

- Proof of concept in tumor animal studies using siRNA and antibodies to Srpx2
- Monoclonal antibodies to Srpx2 are being generated

Advantages

- Mechanism of Action defined
- Monoclonal antibodies have good clinical success rates when designed to well studied targets
- Potential greater specificity and reduced side-effects compared to existing anti-angiogenic therapeutics

References & Intellectual Property


World-wide intellectual property protection for this technology:

Available for licensing or partnering

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