



**EMAP II in Cancer Therapy** (*Drs. Margaret & Roderik Schwarz, RWJ 06-08 & 06-27*)  
Oncology

**Background**

Endothelial-Monocyte Activating Polypeptide II (EMAP II) is a 34kD protein that undergoes enzymatic release of its C-terminus resulting in the release of a 19kD fragment that functions as an anti-angiogenic protein. The function of the intracellular proform of EMAP II has been elucidated by UMDNJ researchers, as well as, the conditions by which the protein is cleaved, and the mechanism by which it inhibits vessel formation.

**Description of the Technology**

The mechanism of action of EMAP II has allowed for the assembly of unique combinations of chemotherapeutic agents and anti-angiogenic agents that results in significant enhanced suppression in tumor growth. More specifically, EMAP II in combination with cytotoxic agents such as gemcitabine and in combination with VEGF antibodies or alpha5 integrin blockers resulted in tumor regression. Additionally, using methods of the present invention, one can search for novel cancer drugs that would affect cleavage of EMAP II thereby inhibiting angiogenesis.

**Patent Status**

United State provisional patent application filed

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