

## **P-163: SEPARATION OF ANTI-ANGIOGENIC AND LAXATIVE FRACTIONS IN RHUBARB EXTRACT**

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Rhubarb is a traditional herbal medicine used in China mainly for laxative functions attributed by anthraquinones. In screening for anti-angiogenesis agents from plants rhubarb was found to inhibit angiogenesis. This study attempted to separate this antiangiogenic activity from laxative function. At 1 mg/mL concentration, the crude extract completely inhibited neovessel initiation and growth in the assays with human placental vein and adipose tissues. Fractionation of the crude extract was performed using polarity based C<sub>18</sub> column. Aqueous ethanol at various concentrations was used to elute the crude extract to result in four fractions, F1 to F4. F1 and F2 were not active in inhibiting angiogenesis. F3 totally inhibited angiogenesis at 1 mg/mL and chemical analyses indicated that gallic acid (GA) was highly concentrated in this fraction. The laxative anthraquinones such as sennosides A, rhein, and emodin, were fractionated into F4. The anti-angiogenic components were successfully separated from the laxative components. The anti-angiogenic but non-laxative fraction would be a better candidate than the crude extract for further investigations.