

**P-049: ANTIANGIOGENIC AGENTS FROM *TRIPTERYGIUM WILFORDII***

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Angiogenesis is a process in which new blood vessels sprout from pre-existing ones. This process is closely related to some diseases such as cancer, retinopathy and inflammation.

Antiangiogenesis may represent a promising therapeutic strategy, especially in cancer treatment. In a screening of ten traditional Chinese medicines for antiangiogenic agents using a zebrafish model, the crude extract of *Tripterygium wilfordii* revealed the most potent antiangiogenic activities. Through bioassay-guided purification, three active components were isolated from the ethyl acetate fraction of the crude extract, namely, triptolide, celastrol and cangoronine. Triptolide showed the most potent antiangiogenic activity by inhibiting blood vessel formation in zebrafish by nearly 50% at 1.25  $\mu\text{M}$ . Celastrol at 0.625  $\mu\text{M}$  also reduced vessel formation by more than 30%, but killed 50% of the fish embryos at higher concentrations. Cangoronine was much weaker, inhibiting vessel formation by 20% at 2.5  $\mu\text{M}$ . All these three components showed higher antiangiogenic activities than 2-methoxyestradiol, a putative antiangiogenic agent currently under clinic trials, as the latter inhibited angiogenesis in zebrafish embryos by 34% at 10  $\mu\text{M}$ .