6. CONCLUSION

1. Aqueous extract of *O. indicum* (OI<sub>aq</sub>) was found to be protective against DNBS induced colitis by inhibiting macroscopic and microscopic damage to colon, weight loss, diarrhoea, MPO, MDA and NO levels with increase in natural antioxidant GSH levels in rats. The activity can be ascribed to combined effect of baicalein, chrysin and biochanin-A found in OI<sub>aq</sub>.

2. OI<sub>aq</sub> reduced castor oil and magnesium induced diarrhoea, a relevant finding in light of fact that OI<sub>aq</sub> administration is not associated with constipating effects under physiological conditions (not altered intestinal transit). Effect of OI<sub>aq</sub> could be because of presence of baicalein, chrysin and biochanin-A.

3. *A. heterophyllum* was found to be safe in acute toxicity study and in limit test performed at dose 1000 mg/kg/day in repeated dose toxicity in rats.

4. AH<sub>aq</sub> showed inhibition of macroscopic and microscopic damage to colon, weight loss, diarrhoea, MPO, MDA and NO levels with increase in natural antioxidant GSH levels in rats.

5. Potently active fraction obtained from *O. indicum* (OI-F) in dose 100 mg/kg p.o., improved symptoms of AOM and DSS treated rats. Body weight, stool consistency and colonic lesion area was found to be improved significantly. But NF-κB and IL-6 levels in homogenised rat colon were altered slightly.

6. The potently active fraction obtained from *A. marmelos*, AM-E, was found to inhibit progression of AOM and DSS induced colon cancer significantly. It decreased symptoms of inflammation as well as colon cancer at both dose levels (i.e. 50 and 100 mg/kg p.o.). AM-E also inhibited NF-κB and IL-6 levels significantly as compared with model control.

7. OI-F fraction obtained from *O. indicum* was found to inhibit CRAC channel, thereby inhibiting T cell activation and ultimately experimentally induced colitis.

8. Phytosterol rich AM-E fraction, obtained from *A. marmelos*, was found to inhibit response of histamine on H1 receptors dose dependently, there by inhibiting the progression of UC.