In Vitro Antioxidant and In Vivo Anti-Inflammatory Potential of Crude Non-Alkaloid Fractions from *Fritillaria ussuriensis* Maxim

Xia LI 1, Wenyuan GAO 1*, Lijing HUANG 1,2, Luqi HUANG 3 & Changxiao LIU 4

1 School of Pharmaceutical Science and Technology, Tianjin University, Tianjin 300072, China  
2 School of Chinese Medicine, Tianjin University of TCM, Tianjin 300193, China  
3 Institute of Chinese Materia Medica, China Academy of Chinese Medicinal Sciences, Beijing 100200, China  
4 Tianjin Institute of Pharmaceutical Research, Tianjin 300193, China

**SUMMARY.** The present study was conducted to evaluate the antioxidant and anti-inflammatory effects of the ethanol extracts (PBE) and the non-alkaloid fractions, the crude saponin extract (CSE) and the crude flavonoids extract (CFE), of *Fritillaria ussuriensis* Maxim (PB). The antioxidant activity of PB extracts decreased in the order: CFE > CSE > PBE. All the administered groups produced significant anti-inflammatory effects on the three animal models. The results demonstrated that the different fractions of PB have different responses with different antioxidant methods and anti-inflammation animal models. CSE showed the best antioxidant and anti-inflammatory activities and CFE and PBE followed.