Appetite suppression and anti-obesity effect of a botanical composition composed of *Morus alba, Yerba mate* and *Magnolia officinalis*

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, and extracts were standardized to yield a composition designated as UP601. Appetite suppression activity of UP601 (230 and 350 mg/kg) was tested in acute feed intake rat model. Efficacy was evaluated at 300, 450 and 600 mg/kg in the high-fat-high-fructose (HFF) and 1.3 g/kg in the High-fat-diet (HFD) induced models for 7 weeks. Orlistat at 40 mg/kg/day was used as a positive control in both models. Body compositions of mice were assessed using DEXA scan. Insulin, leptin and ghrelin levels were determined. Serum biomarkers were measured. Histopathological analysis was performed for microscopic non-alcoholic steatohepatitis (NASH) scoring. Marked acute hypophagia with 81.8, 75.3, 43.9, and 30.9% reductions in food intake at 2, 4, 6, and 24 hours were observed for UP601. Statistically significant changes in body weight (decreased by 9.1, 19.6 and 25.6% compared to the HFF group at week-7) were observed for mice treated with UP601 at 300, 450 and 600 mg/kg, respectively. 75.9% and 46.8% reductions in insulin and leptin, respectively, 4.2-fold increase in ghrelin level, in the HFD group; reductions of 9.1, 16.9, and 18.6% in total cholesterol; 45.0, 55.0, 63.6% in triglyceride; and 34.8, 37.1 and 41.6% in LDL were observed for UP601 at 300, 450 and 600 mg/kg, respectively, in the HFF group. From the DEXA scan analysis, a percentage body fat of 18.9%, 47.8%, 46.1% and 30.4% were found for mice treated with normal control, HFD, Orlistat and UP601, respectively in the HFD group. Statistically significant improvements in NASH scores in steatosis, lobular inflammation and hepatocellular ballooning were also observed for mice treated with UP601. UP601, a standardized botanical composition from , and could be used as a

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