

**O-26: UniBEX™, A STANDARDIZED BAMBOO LEAF EXTRACT REDUCES CARDIOVASCULAR RISK FACTORS IN HYPERLIPIDEMIC AND ATHEROSCLEROSIS ANIMAL MODELS**

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Cardiovascular diseases have become a worldwide first health concern. There are growing needs for controlling the cardiovascular diseases with high safety products such as herbal extracts. We screened 480 herbal extracts by a high through-put NO inhibition assay, and developed UniBEX™, a standardized bamboo leaf extract. The efficacy of UniBEX™ was evaluated in the 2 representative cardiovascular animal models, high cholesterol diet induced-hyperlipidemic (C57BL/6J) and -atherosclerosis mice (LDL receptor knock-out mice, B6.129S7-*Ldl*<sup>tm1Herv</sup> from Jackson Lab.). UniBEX™ treatment for 6 months to hyperlipidmic mice decreased the lipid levels (total cholesterol, LDL-C, and triglycerides) significantly. Also, the area of atherosclerotic plaques and neointima formations were reduced significantly in the atherosclerosis mice treated with UniBEX™ for 16-weeks (100mg/kg,  $p < 0.05$ ). In in-vitro mechanism studies using human primary vascular cells, UniBEX™ has been proven to have anti-inflammatory (VCAM-1/ICAM-1/IL-6 inhibition effect) effects in LPS treated human umbilical vessel endothelial cells (HUVECs) and anti-aortic smooth muscle cell proliferation effect in human aortic smooth muscle cells (haSMC) proliferation assay. Altogether, we concluded that UniBEX™ has multi-action points to reduce the development of cardiovascular diseases.