Presented at the DLSU Research Congress 2014
De La Salle University, Manila, Philippines
March 6-8, 2014

In Vitro Anti-Neoplastic Properties of *Berberis vulgaris* L. var. asperma

Glenn G. Oyong[1,2*], Naser Jafari[3,4], Ma. Carmen S. Tan[5] and Esperanza Maribel G. Agoo[2]

[1] *Molecular Science Unit, Center for Natural Science and Ecological Research, Office of the Vice Chancellor for Research, De La Salle University, Manila, Philippines*

[2] *Biology Department, College of Science, De La Salle University, Manila, Philippines*

[3] *Department of Biochemistry, School of Medicine, Ardabil University of Medical Science, Ardabil 56197, Iran*

[4] *Department of Cell & Molecular Biology, School of Biology, College of Science, University of Tehran, Tehran, Iran*

[5] *Chemistry Department, College of Science, De La Salle University, Manila, Philippines*

**Corresponding Author: glenn.oyong@dlsu.edu.ph*

Abstract: Traditional herbal plants have played a major role in healing and preventive medicine for hundreds of years. *Berberis vulgaris* L. var. asperma is an indigenous seedless barberry fruit variety in Iran which is commonly utilized as additive in food and has been documented to possess several pharmacological properties of medical importance. This preliminary study investigated the anticancer activity of the seedless fruit ethanolic extract by determining anti-proliferative effects on human colon (HT-29) and breast cancer (MCF-7) cells via PrestoBlue® assay. Surprisingly, significant cytotoxic effects were observed with IC50 values of 7.5 and 10.7 mg/mL, respectively. No cytotoxic effects were observed on normal human fibroblasts suggesting biocompatibility. These results infer the promising pharmacognostic application of the seedless *B. vulgaris* fruit as potential source of novel chemopreventive and chemotherapeutic drugs.

Key Words: *Berberis vulgaris;* barberry, cytotoxicity, anticancer