

International Conference on Pharmaceutical Chemistry

September 05-07, 2016 Frankfurt, Germany

The antimutagenic activity of selected medicinal plants from Jordan

Karem H Alzoubi

Jordan University of Science & Technology, Jordan

Herbal medicinal products represent a major focus for drug development and industry and it holds a significant share in drug-market all over the globe. Recently, a number of medicinal plant extracts from Jordan with high antioxidative capacity were shown for their protective effect against DNA damage, which correlates future likelihood of cancer development or birth defects. In this study, we evaluated plant extract with high antioxidative DNA damage properties for anti-mutagenic effect using sister chromatid exchange assay in cultured human lymphocytes. As per our screening results, plant extracts with antioxidative DNA damage properties were the hexane fraction of *Silybum marianum* L. (aerial parts), the chloroform fractions of *Pistacia palaestina* Boiss (Fruits), the ethanolic fractions of *Salvia triloba* L. (leaves), *Ziziphus spina-christi* L. Desf. (Fruits/leaves) and *Eucalyptus camaldulensis* Dehnh (leaves). These plant extract fractions were further analyzed using sister chromatid exchange assay in cultured human lymphocytes. Results showed that the ethanolic fractions of *spina-christi* L. Desf. (Fruits/leaves), and *Eucalyptus camaldulensis* Dehnh (leaves) significantly reduced the rate of sister chromatid exchanges in cultured human lymphocytes at doses of 100 ug/ml, 500 ug/ml. Additionally, the hexane fraction of *Silybum marianum* L. (aerial parts) significantly reduced the rate of sister chromatid exchanges in cultured human lymphocytes at a dose of 500 ug/ml. These results indicate the antimutagenic activity of the ethanolic fractions of *spina-christi* L. Desf. (Fruits/leaves), *Eucalyptus camaldulensis* Dehnh (leaves) and hexane fraction of *Silybum marianum* L. (aerial parts); and thus, their increased potential as cancer protective agents.

Biography

Karem H Alzoubi, PhD, Professor of Pharmacology, Dean of the Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan. He has published over 160 peer-reviewed research articles and review article in well-respected international journals, and a number of book chapters. He presented his work in over 50 international conferences all over the world. His scientific work has been highly cited. He has a current, Scopus h index of 24, which is the highest among researchers in Jordan and among the highest in the Arab world in the fields of pharmacy/pharmacology. He was awarded Khalifah Award for Education (an international award) distinguished University Professor in the Field of Scientific Research from Government of United Arab Emirates (UAE) (2014-2015). He also won the Abdul-Hameed Shoman Young Arab investigators Award for Medical Sciences for 2012 from the Shoman forum. He was also awarded the Distinguished Researcher Award in the fields of Medicine and Pharmacy from the Ministry of Higher Education and Scientific Research, Amman, Jordan (2013).

khalzoubi@just.edu.jo

Notes: