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## Metabolic Profiling, and Anti-cancer, Anti-inflammatory screening for Wild Plants Growing in Egypt

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Egypt is considered as an important country for plant diversity, it contains about 38.8% of the threatened plant species of North Africa. Hence this study aims to investigate some wild plants grown in Egypt deserts. Metabolomic profiling of the ethanolic extracts of three wild desert plants collected from Egypt dereplicated 28 compounds from *Volutaria lippi*, 20 from *Trigonella stellate* and 15 from *Fagonia cretica* using LC–HRESIMS technique. The identified metabolites belong to different chemical classes as alkaloids, flavonoids, phenolic and sterols as well as fatty acids. Additionally, the three plants were assessed for their cytotoxic, anti-inflammatory and antioxidant activities. Anti-cancer activity was tested against three cell lines human liver carcinoma (HEPG2), human breast carcinoma (MCF7) and human colon carcinoma (CACO2). In vitro anti-inflammatory activity was carried out against cyclooxygenase enzymes (COX-1 and COX-2) and Nitrous oxide (NO). Total phenolic and flavonoid contents were determined by Folin-Ciocalteu and aluminium chloride reagents respectively, while 2, 2-diphenyl-1-picrylhydrazyl (DPPH) was used for anti-oxidant assay. Concerning anti-cancer activity; only *Fagonia cretica* showed significant anti-cancer activity against the tested cell lines. Anti-inflammatory results revealed that *Volutaria lippi*, *Fagonia cretica*, and *Trigonella stellate* have anti-inflammatory activity against cyclooxygenase enzymes.

**Keywords:** *Volutaria lippi*, *Fagonia cretica*, *Trigonella stellate*, anti-cancer, anti-inflammatory, LC–HRESIMS

### Biography:

Ahlam ElWekeel, worked as lecturer of pharmacognosy and natural products since 2017 at Faculty of Pharmacy, Beni-Suef University, Egypt. Have been teaching pharmacognosy for undergraduate students. Research work is in the field of natural products isolation and structural elucidation. Also, part of my work was on plant tissue culture and natural products analysis using HPLC. Currently i am intersted in screening for bioactive seconadry metabolites for cancer treatment and antibiotic resistant bacteria