Effect of Crude Extract from Qatari Medicinal Plants on Breast Cancer Cell Proliferation

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Objectives

• Preparation of crude extracts from *Plantago ciliate* and *Convolvulus pilosellifolius* using 3 different solvents: methanol, acetone and water

• To identify the anti-proliferative effects of the crude extracts on breast cancer cell MDA-MB-231.

• Identifying the best solvent for crude extraction
Achievements and Outcomes

C. pilosellifolius

(a) Crude extraction from C. pilosellifolius and P. ciliata process using methanol and acetone as solvents. (b) Crude extraction from C. pilosellifolius and P. ciliata process using water.

Figure 1: (a) Crude extraction from C. pilosellifolius and P. ciliata process using methanol and acetone as solvents. (b) Crude extraction from C. pilosellifolius and P. ciliata process using water.

(Flora of Qatar, 2019)
Figure 2: (A) Effect of water, acetone and methanol *P. ciliata* extracts and (B) Effect of water, acetone and methanol *C. pilosellifolius* extracts on MDA-MB-231 cells proliferation

Figure 3: Alamar blue reading of acetone (A) methanol (B) water (C) *P. ciliata* extract plate, acetone (D) methanol (E) water (F) *C. pilosellifolius* extract plate after 48 hours of treatment.
Post project plans

Further research need to be conducted to support these results by using

• Different cancer cell lines
• Identifying the bioactive compounds and the underlying mechanisms mediating cell inhibition
• Identify various pathways involved in apoptosis