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## Investigation of porcupine bezoar extract combined with electroporation on HeLa cell (Conference Paper)

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### Abstract

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Current chemo-preventive agents will causes a long term side effects in cancer sufferer. Therefore, this research focusses on the benefits of combine both technique of Electroporation (EP) method and with natural animal extract in process to inhibit the proliferation of cancer cell, as a solution to reduce or adverse effects of orthodox drugs. The present study indicates on anti-cancer potentially of Porcupine Bezoar Extract (PBE), also known as Hystrix Brachyuran against HeLa cell. Cell viability of HeLa cell were determined after HeLa cell treated with 500 V/cm and pulse duration of 100 μs before the concentration of 80.0 μg/ml of Porcupine Bezoar Extract (PBE) was added into the cell. The cell viability and cell growth were monitored up to 48 hours with comparative to untreated cell as a control group. This study result proved that by combine both technique; Electroporation (EP) and with natural animal extract Porcupine Bezoar Extract (PBE) might open the door and it has an ability in supressing the growth of HeLa cell. © 2018 IEEE.

### SciVal Topic Prominence

Topic: Electroporation | Electric fields | fields nsPEFs

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### Author keywords

Anti-cancer Electroporation (EP) HeLa cell Porcupine Bezoar Extract (PBE)

### Indexed keywords

Engineering controlled terms:

Animals Beryllium compounds Control systems Controlled drug delivery Cytology Diseases Drug interactions Electroporation

Engineering uncontrolled terms

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## References (14)

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- 1 Mehta, K., Gandhi, V., Pathak, S., Aggarwal, B.B., Grover, R.K.  
Multi-targeted approach to cancer treatment: An international translational cancer research symposium

(2014) *Anticancer Research*, 34 (11), pp. 6791-6795. Cited 6 times.

<http://ar.iiarjournals.org/content/34/11/6791.full.pdf+html>

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- 2 Moffat, J.G., Rudolph, J., Bailey, D.  
Phenotypic screening in cancer drug discovery-past, present and future

(2014) *Nature Reviews Drug Discovery*, 13 (8), pp. 588-602. Cited 181 times.

<http://www.nature.com/nrd/index.html>

doi: 10.1038/nrd4366

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- 3 Gordaliza, M.  
Natural products as leads to anticancer drugs

(2007) *Clinical and Translational Oncology*, 9 (12), pp. 767-776. Cited 349 times.

doi: 10.1007/s12094-007-0138-9

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