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## Elucidating the potentialities of compounds isolated from local herbal plants as future anti-cancers for treatment

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The mortality resulting from cancer is still high and the cure for cancer remains elusive. Treatment of cancer that focused initially on systemic, high-dose chemotherapy of being non-specific, is now shifted to discover newer potential anticancers that balances minimal adverse effects and complications with maximal antitumor activity. Hence, natural products derived drugs are believed to reduce these adverse effects and shown significant growth in the pharmaceutical industry. The importance of natural products as novel compounds relates to the fact that plants synthesised and developed chemical based defence system, which involved production of secondary metabolites. It is these secondary metabolites, considered relatively safe and cheaply available that leads to the thriving of chemically diverse compounds, now being the target of current anticancer drug discovery with potential use in treatment of diseases. Natural compounds that generally regulate apoptosis and overcome apoptosis deficiency of cancer cells are of high medical significance. In regards to this, our laboratory in Malaysia has discovered several interesting natural compounds of local herbal plant derived, which induces apoptosis to cancer cells specifically, with little effects on normal cells and surroundings organs. Apart from *in vitro* analysis, the animal model studies provided evidence of potential regression to the cancers progression when using these compounds for treatment. Increasing evidences suggesting neoplastic progression involve normal apoptotic pathways modification has attracted much attention in anti-cancers discovery nowadays. Hence, this presentation reveals few of these natural compounds exhibiting newly discovered anti-cancers activity via the induction of apoptosis in these cancers specifically.

## **Biography**

Ahmad Bustamam Abdullah has completed his PhD at the age of 38 years from the Newcastle Upon Tyne University in England. He is currently an Associate Researcher and Principle Investigator in the MAKNA-UPM Cancer Research Laboratory, University Putra Malaysia. He has published more than 60 papers in reputed journals and several patents and pending patents, with several international and national research awards. He has supervised as Principle Supervisor of more than 15 graduate students at both PhD and MSc levels.

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