Chinese and botanical medicines: TCM needs TQM

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There is a need to improve and promote the scientific inquiry on the study and use of botanicals, natural products and Chinese medicine, in order to secure global acceptance. Although there is an enormous history of use of Chinese medicines a better understanding of these preparations and formulae within the scientific and international community is needed, and one approach is to include a total quality management program (TQM). The aim is to present case studies on selected botanicals and natural products to provide scientific data that could substantiate the health claims. One example is the inhibition of ENOX2 (tNOX), a molecular target to examine anticancer activity of green tea catechins. The relation between green tea catechins and cell protection through a cell surface protein, ENOX2 has been identified. When the ENOX2 of cells is inhibited, the cells fail to enlarge after division, cease to divide, and after a few days undergo apoptosis. To date, epigallocatechin gallate (EGCG) in green tea is the most effective polyphenol ENOX2 blocker found without any adverse effects on normal cells. Synergistic combinations of green tea concentrate and powdered capsicum reduces oxidative stress as an approach to elimination of malignant cells in both cancer (HeLa) and non-cancer (MCF-10A) cells. Some preliminary data on green tea and other examples of well-known botanical medicines described in Chinese folklore will be presented that reflect the need to incorporate TQM into TCM.

Biography
Dr Ray Cooper was born in the UK, received his Ph.D. in organic chemistry and after 15 years in R&D in the pharmaceutical industry, he moved to the dietary supplements industry. He developed new Chinese botanicals as supplements including Cholestin, Cordymax and Te-Green. Currently Ray is visiting professor and lecturer at the HK Polytechnic University and co-founder of PhytoScience LLC, a consulting company creating innovative botanical solutions and products. He is the recipient of the 2014 American Society Pharmacognosy Tyler Prize for his life time contributions to Botanical Research. He is also a Fellow of the Royal Chemical Society, UK. Ray has recently published three books: Natural Products Chemistry: Sources, Separations and Structures (CRC PRESS) and Botanical Miracles, Plants that Changed the World, and Chinese and Botanical Medicines. He has edited 5 books, most recently, Botanical Medicine: from Bench to Bedside and published over 100 peer reviewed scientific articles.

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DOI: 10.4172/2167-0412-C4-026