

# Pharmacology and Ethnopharmacology

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## Phytoceuticals: A new era in ethnopharmacology

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Plants are an important source of biologically active substances and hence they have been used for medicinal purposes, since ancient times. The use of medicinal plants is usually based on traditional knowledge, from which their therapeutic properties are ratified in pharmacological studies. In the developing countries, the population relies basically on medicinal plants for primary health care, since modern medicines are expensive and not easily accessible. In recent years, even in the developed countries, herbal drugs gained popularity. Herbal medicines are always formed from a complex mixture of chemical compounds mainly secondary metabolites of plants termed as phytoceuticals' as they are phytochemicals with pharmaceutical properties which provide health as well as medicinal benefits. There has been extensive research in the present years on oxidative stress in diseases associated with aging and the benefits of antioxidative phytoceuticals in the prevention of diseases and boosting of healthy aging. Phytoceuticals mainly from herbs and spices such as aniseeds, ajwain, coriander, mint, curry leaves etc. include isoprenoids, polyphenols, flavonoids, terpenoids, carotenoids, phytoestrogens, alkaloids etc. exhibit antioxidant (ascorbic acid, beta-carotene,  $\alpha$ -tocopherol, lycopene, glutathione, luteolin, etc.), anti-inflammatory (quercetin, capsaicin, curcumin, etc.), osteogenetic (genistein, diadzein, casein, inulin, etc.), hypolipidemic (MUFA, PUFA, resveratrol, saponins, tannins, beta-sitosterol, etc.) and anticarcinogenic (capsaicin, genistein, curcumin, ellagic acid, lutein, etc.) properties. Thus, phytoceuticals can act against oxidative stress-induced acute and chronic diseases viz. diabetes, arthritis and cancer and hence, these are powerful instruments in promoting optimal health, longevity and quality of life. Thus phytoceuticals hold great opportunities for pharmaceutical industries to bring out novel drugs and herbal supplements for future needs.

## Biography

B Andallu completed her PhD from Sri Krishnadevaraya University, Anantapur, A.P., India. She is the Head, Department of Food and Nutritional Sciences, Anantapur, Andhra Pradesh, recipient of awards and gold medals at national and international levels, authored and contributed chapters for books, published review and research articles, delivered talks and presented many research papers in national and international seminars/conferences, completed research projects, specialized in research on 'Natural remedies for stress-induced diseases', member of editorial board for reputed journals and life member in professional bodies.

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