



## Active Role of Secondary Metabolites in Pharmacology

### PF Steffi\*

Assistant Professor, PG and Research Department of Microbiology, Cauvery College for Women (Autonomous), Tamil Nadu, India

**\*Corresponding Author:** PF Steffi, Assistant Professor, PG and Research Department of Microbiology, Cauvery College for Women (Autonomous), Tamil Nadu, India.

Secondary metabolites have played an important role in possessing various biological effects, which included antibiotic, antifungal and antiviral [1,2]. They provide basic knowledge of scientific use of herbs in the traditional medicine in many of the prehistoric communities [3]. These metabolites protect plants from various pathogens [4]. Some of the example for secondary metabolites are toxins, gibberellins, alkaloids and antibiotics [5]. Plant chemistry has an important role in therapeutic uses of herbs [6]. A virtuous knowledge about various chemical composition of plants will leads to better understanding of its possible medicinal value [7]. Contemporary chemistry plays primary role in basic life functions such as respiration, cell division, growth, storage and reproduction [8]. They include the components of processes such as Krebs or citric acid cycle, glycolysis, photosynthesis and associated pathways [9,10].

Secondary metabolites serve:

- As a competitive weapon against plants, insects, bacteria, fungi, amoebae and large animals
- As a metal transporting agent
- As an agent for symbiosis between nematodes, insects, microbes, plants and higher animals
- As a sexual hormone
- As a differentiation effector

In modern medicine, many lead compounds are formed for the production of medications for treating various diseases from cancer up to migraine.

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