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Reverse Pharmacognosy Effectively Uses Traditional Medicines and Natural Products as Promising Sources to Provide Guidance for New Drugs

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DESCRIPTION

Pharmacognosy occupies an important place in pharmacy as it deals with the collection, identification, preparation and extraction from natural sources of a large group of medicinal products used in both conventional and traditional medicine. A thorough understanding of the working principles of natural medicines as chemicals is essential to a successful pharmacist. Due to the fact that the solubility, reactivity, stability, toxicity, dosage, availability, purity, yield, methods of isolation, purification and identification of naturally occurring chemicals are studied in herbal medicine, they can provide general information about Pharmacognosy, the science of medicines of natural origin, has therefore become an increasingly important area in the curriculum of pharmaceutical education, and may even form the basis for the development of other areas of pharmacy. Pharmacology, medicinal chemistry, and pharmacy are all medical manifestations and offshoots of this basic science.

Knowledge of drug effects (pharmacology) can only be used effectively if the drug's identity, physical properties, and chemical composition are known, and pharmacognosy provides this information. Practices were held all over the world. Ingredients depend on what is readily available to those around you. The chemical properties and properties of chemicals can be studied and understood by pharmaceutical chemists. Alternatively, a chemical can be synthesized and its activity altered or improved, given sufficient knowledge of its source, occurrence, method of isolation, and state of purity. This knowledge is available from your pharmacologist. The formulation and actual preparation of pharmaceuticals depends on many properties such as: Solubility, stability, reactivity, etc. Pharmacists with sufficient knowledge of herbal medicine can obtain such information on naturally occurring substances.

At the beginning of the 21st century, especially in Western Europe and North America, the explosive growth in the use of herbal remedies (phyto-pharmaceuticals) in modern pharmaceutical practice has given pharmacy education a new relevance in academic pharmaceutical institutions. I have been carrying In turn, the field of pharmacognosy research continues to expand and now includes, in addition to the more traditional development of analytical methods and phyto-chemistry, cells and molecules relevant to natural products, ethnobotany, and phyto-therapy. Biology aspects are included. In this review, we present promising bioactive compounds from two of his multidisciplinary natural product drug discovery projects aimed at elucidating novel plant-derived cancer chemotherapeutic agents and novel cancer chemo preventive agents, respectively. Complementing pharmacognosy, reverse pharmacology combines High-Throughput Screening (HTS), virtual screening, and databases with conventional medical knowledge. These strategies lead to the identification of large numbers of *in vitro* active and selective hits, increasing the speed of drug discovery from natural sources. Also, reverse pharmacology is a goal-based approach to drug discovery. In a first step, it is hypothesized that altering a specific activity of the protein would have a beneficial therapeutic effect. Both reverse pharmacology and reverse pharmacology use high-tech methods to achieve their respective goals. In addition, reverse pharmacognosy effectively uses traditional medicines and natural products as promising sources to provide guidance for new drugs, and the pharmacological profile of traditional medicines, plant extracts, or natural products promoting rational use with valuable information such as protein structure databases and chemical libraries.

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CONFLICT OF INTEREST

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