Therapeutics: Key to well being

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Published by:
Lincoln Research and Publications Limited, Australia
in collaboration with
Lincoln University College, Malaysia
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Therapeutics are medications that are used to treat or prevent an illness. Drug therapy, medical gadgets, nutrition therapy, and stem-cell therapies are all examples of therapeutics. Therapeutics can be used in patients to treat the disease or its symptoms, as well as in preventative medicine and palliative care.

*Tinospora cordifolia* (Willd.) Miers is a well-known indigenous medicinal plant belonging to the family Menispermaceae. The herb is extensively used in traditional medicine for treatment of chronic fever related to dengue and malaria. It is also recommended as ayurvedic treatment to increase immunity and improve digestive ailments.

India, West Bengal has a sizable number of medicinal plants because of different weather conditions. West Bengal is one and only state in India where Darjeeling Himalayas are within the north and Sundarbanas areas are in the south with meadowlands and uplands covering a vicinity with a variety of medicinal plants. The traditional system of public health care has been effectively used, over many years to treat illnesses in West Bengal. In tribal culture of West Bengal traditional medicine can be an awfully sound and reputed medical system. This 21st century totally believes in modern medical system, but tribal peoples avoid allopathic and homeopathic medicine to cure their disease.

Sesame plant is used for numerous purposes. It is used in different culinary processes. It also has applications in pharmaceutical, industrial, and engineering industry. Different phytonutrients, some flavonoid phenolic antioxidants, several vitamins and dietary fibre which have medicinal properties. It has other proven medicinal benefits such as anti-inflammatory, anti-microbial, anti-hypertensive, antipyretic, anticancer and few additional properties. As a result, the sesame plant has a bright future in the medical arena, with the potential to improve and enhance the eminence of life of mankind.

The tremendous pharmacological activities and a wealth of available literature make *Ocimum sanctum* one of the most valuable herbs in the plant kingdom. The pharmaceutical activities of the herb results from the amalgamated and synergistic interactions of the different phytochemicals present. This widespread herb is easily available in India and other neighbouring countries, growing both in wild and cultivated forms. The extensive range of the properties of its chemical constituents makes it a potential entity for more detailed clinical research. More investigations will establish the prospects of using the plant and its active novel chemical constituents in a large scale in modern medicine.

Several Covid-19 medicines are being used un-licensed due to pandemic. For this reason, a long-term data was needed for a proper evaluation in their efficiency and safety. So, this review is about a detailed investigation of several possible treatment of covid-19, which can guide pharmacist and therapist in the time of pandemic.

The cheapest and most frequently used drug in medicine is Aspirin. In the wide range of pharmacological area, it is a non-steroidal anti-inflammatory drug, including antipyretic, analgesic, and antiplatelet assets. Aspirin has been long used as a beneficial analgesic and antipyretic. Even in historical times, salicylate-containing flora inclusive of the willow had been typically used to alleviate ache and fever.

Cisplatin or cis-diaminedichloridoplatinum (II) is one of the most successful and efficient chemotherapeutic drugs for the treatment of various types of malignancies, including bladder, testis, ovary, head and neck, lung cancer, germ cell tumors, lymphomas, sarcomas, and many others. Cisplatin molecules bind with DNA to form an adduct which finally transduces several signalling pathways, resulting in apoptosis and cell death. Unfortunately, neither cytotoxicity nor apoptosis are completely generated in cancer cells. Therefore, cisplatin may have a variety of side effects that limit its use and effectiveness.

The study of distinct cultural approaches to health, sickness, and illness, as well as the nature of local therapeutic systems, is known as ethnomedicine. Ethnomedicinal research are important for the discovery of novel crude medicines from indigenous medicinal plants that have been described. Ethnobotanical research is critical for the development of new medicines derived from plant species that are part of the world’s indigenous heritage. Medicinal herbs are frequently utilised as cosmetics,
flavours, oils, bitters, spices, sweeteners, pesticides, and death agents to assist relieve human misery. Monoclonal antibodies are immune system proteins that are manufactured in a laboratory. Antibodies are proteins that are produced naturally by the body that assist the immune system in recognising and destroying disease-causing organisms such as bacteria and viruses. Monoclonal antibody medicines are cancer treatments that use body's germ-fighting immune system to combat disease.

Therefore, therapeutic effect refers to the response to any therapy whose outcomes are deemed useful or favourable. This is true whether the outcome was anticipated, unanticipated, or even unintended. Consequently, therapeutics is used in patients with active disease – to treat the disease itself or its signs and symptoms – in preventive medicine, or as palliative care.

The editors would like to thank all the authors for their contribution in such varied topics that will help to create awareness about therapeutics for serving and caring for the patient in a comprehensive manner, preventing disease as well as managing specific problems. The editors are also thankful to the Principal, Surendranath College, Kolkata, India, Management of Lincoln University College, Malaysia and Lincoln Research & Publishing Limited, Australia for giving them the necessary permission to publish this book. We are also thankful to Department of Biotechnology, Government of India for providing the financial assistance. This book provides knowledge about different medicine that deals specifically with the treatment of disease and the art and science of healing. The researchers here deal with varied topics of therapeutics accordingly, to refer to the use of drugs and the method of their administration in the treatment of disease.

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Adity Sarbajna
Sandeep Poddar
Amiya Bhaumik
It is my great pleasure to introduce this book titled as “Therapeutics: Key to well being,” a collection of review articles written by the undergraduate students of the four DBT STAR departments of Surendranath College, Kolkata, covering a wide range of contemporary themes on current advances in various areas of therapeutics, under able mentorship of their faculty members as mentors.

The volume consists of twelve chapters and pursues specific objectives while complementing the existing literature on different areas of therapeutic sciences. It explores the scope of future development in various related emerging fields and analyses the challenges in doing so. I extend special thanks and underline my deepest appreciation to the publisher for publishing this issue, Department of Biotechnology, Government of India for providing the financial assistance and all the editors of this book for their real hard work and sincere effort in bringing out this wonderful volume.

While I hope this collection will have particular appeal to all the new young readers in this field, I am confident that the volume will raise interest among our regular readership of scholars and practitioners elsewhere as well, thanks to the relevance and diversity of contributions compiled here in this volume.

Happy reading to all!

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