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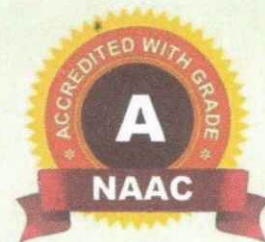
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#### Key Indicator 3.2.2

Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during Academic Year 2023-24.

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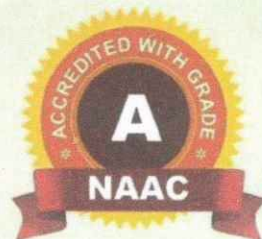
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**3.2.2.1 Total Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during Academic Year 2023-24.**

## 1. BOOKS PUBLISHED BY THE FACULTY

Following books are published by faculty in reputed publications

Sr. No.	Name of the teacher	Title of the book	National / International	Year of publication	ISBN number of the proceeding	Name of the publisher
1	<b>Editors: Khemchand R. Surana</b> , Eknath D. Ahire, Raj K. Keservani Rajesh K. Kesharwani	Preventive and Therapeutic Role of Nutraceutical Vitamins	<b>International</b>	April 2024	978-1-774-91444-1	Apple Academic Press (CRC Press), Taylor and Francis)
2	Dr. Deepika Raina, Dr. Abhijeet Ojha, Dr. Vishakha Jaiswal, Dr. Raj K. Keservani, <b>Dr. Khemchand R. Surana</b>	A Textbook of Novel Drug Delivery System	National	May 2024	978-81-954223-9-5	Piyush Book Publication
3	Khushali R. Pagar, Kiran B. Patil, Sachin S. Gunjal, <b>Khemchand R. Surana</b>	A Textbook of Pharmaceutical Jurisprudence	National	Upcoming 2024		Brilliant Publication



  
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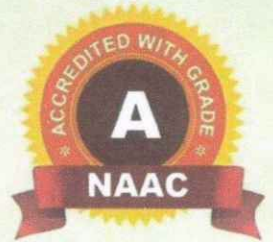
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# **2. COVER PAGE, CONTENT PAGE** **AND FIRST PAGE OF BOOK** **PUBLICATION** **(SAMPLE AS PER** **ACADEMIC YEAR)**



  
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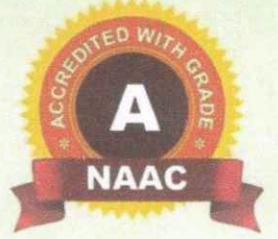
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# 2023-2024



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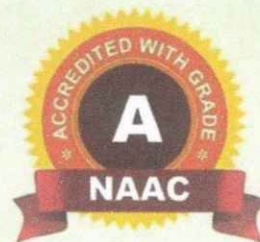
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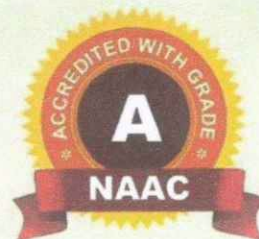
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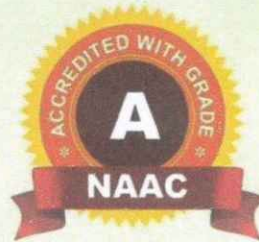
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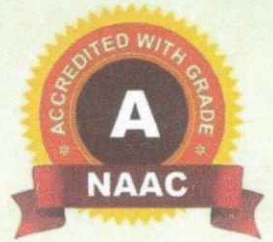
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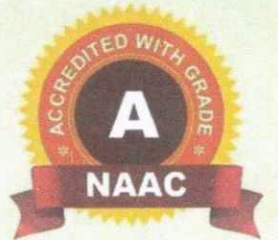


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A TEXT BOOK OF

# Pharmaceutical Jurisprudence

As Per PCI Regulations  
THIRD YEAR B. PHARMACY  
( SEMESTER V )

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- Students can effectively learnt the regulatory authorities and agencies governing the manufacture and sale of pharmaceuticals.

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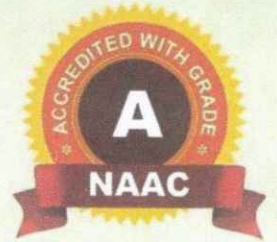
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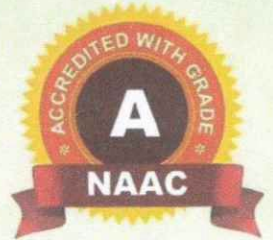
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# Preventive and Therapeutic Role of Vitamins as Nutraceuticals



Khemchand R. Surana | Eknath D. Ahire  
Raj K. Keservani | Rajesh K. Kesharwani  
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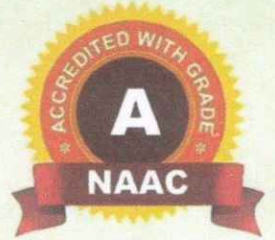
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*Edited by*

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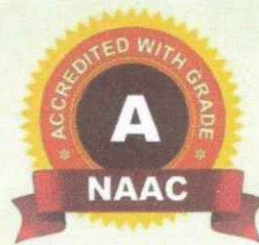
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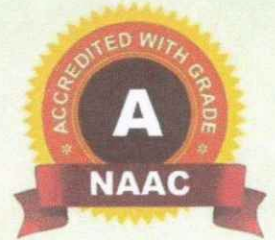
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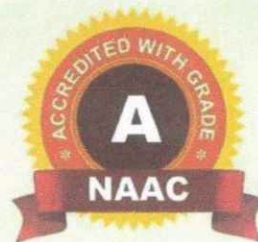
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### BOOK CHAPTERS

#### 3. BOOK CHAPTERS PUBLISHED BY THE FACULTY

Following book chapters are published by faculty in reputed publications

Sl. No.	Name of the teacher	Title of the book published	Name of editor	Title of the book chapter	National / International	Year of publication	ISBN number of the proceeding	Name of the publisher
1	Eknath D Ahire, <b>Khemchand R Surana,</b> <b>Vijayraj N Sonawane,</b> Swati G Talele, Sanjay J Kshirsagar, Umesh D Laddha, Gokul S Talele	COVID-19 and Immunomodulation with Special Emphasis on Nutraceutical and Herbal Formulation	Rajesh K. Kesharwani, Raj K. Keservani	Role of Synthetic Medicines as Immunomodulators for the Cure of COVID-19	International	2023	Hard ISBN: 9781774913178 E-Book ISBN: 9781003347804	Apple Academic Press (CRC Press), Taylor and Francis
2	Tushar N. Lokhande, Komal S. Valve, Subhash S. Shinde, <b>Khemchand R. Surana,</b> and Ganesh U. Chaturbhuj	Vitamins as Nutraceuticals in Cancer	<b>Editors:</b> Khemchand R. Surana, Eknath D. Ahire, Raj K. Keservani Rajesh K. Kesharwani	Preventive and Therapeutic Role of Nutraceutical Vitamins	International	Sept 2023	ISBN 9781774914441 (hardcover) ISBN 9781774914458 (softcover)	Apple Academic Press (CRC Press), Taylor and Francis



  
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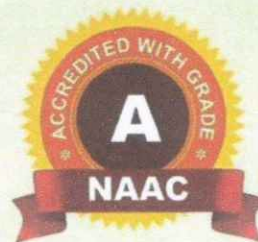
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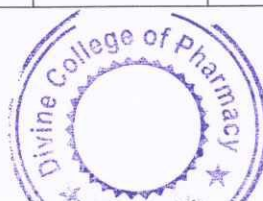
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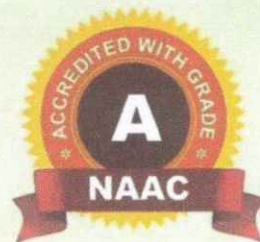
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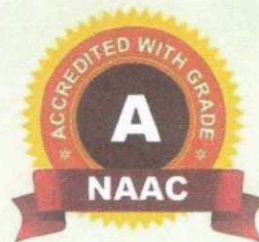
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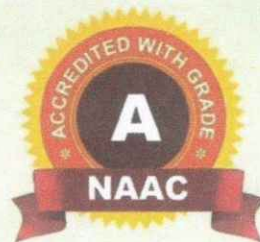
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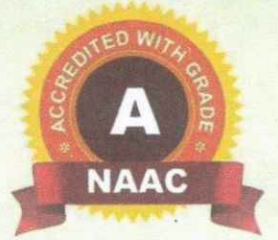
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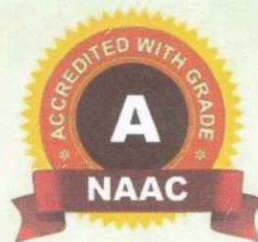
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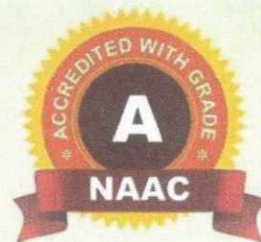
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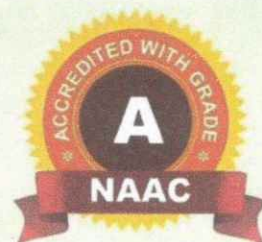
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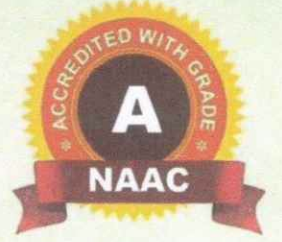
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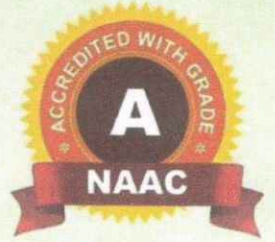
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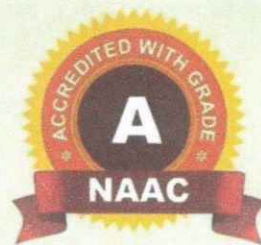
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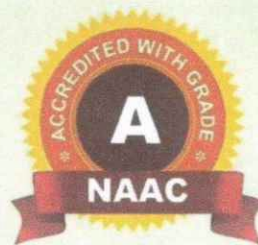
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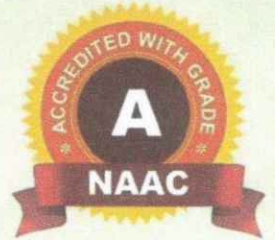
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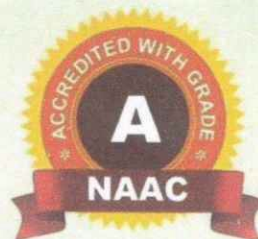
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## COVID-19 and Immunomodulation with Special Emphasis on Nutraceutical and Herbal Formulation



Editors  
**Rajesh K. Kesharwani**  
**Raj K. Keservani**

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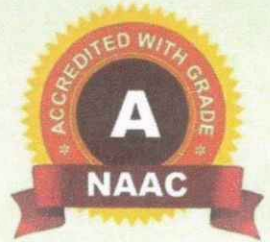
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### CHAPTER 7

## Role of Synthetic Medicines as Immunomodulators for the Cure of COVID-19

EKNATH D. AHIRE<sup>1</sup>, KHEMCHAND R. SURANA<sup>2</sup>,  
VIJAYRAJ N. SONAWANE<sup>2</sup>, SWATI G. TALELE<sup>3</sup>,  
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#### ABSTRACT

Immunomodulation is a therapeutic approach in which we attempt to intervene in the defense system's autoregulating processes, and immunomodulators modulate immune system activity, which reduces the inflammatory response. Immunomodulators are most commonly used in organ transplantation to prevent organ rejection and in autoimmune diseases such as rheumatoid arthritis. To speed up the response during active flares

COVID-19 and Immunomodulation with Special Emphasis on Nutraceutical and Herbal Formulation.  
Rajesh Kumar Kesharwani & Raj Kumar Keservani (Eds)

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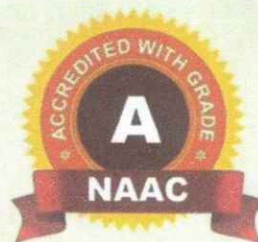
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AAP Advances in Nutraceuticals

### Preventive and Therapeutic Role of Vitamins as Nutraceuticals



Khemchand R. Surana | Eknath D. Ahire  
Raj K. Keservani | Rajesh K. Kesharwani  
Editors

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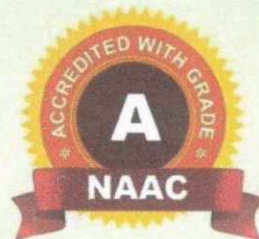
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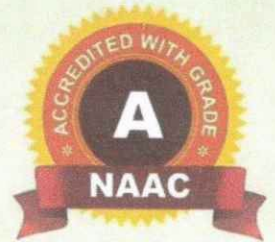
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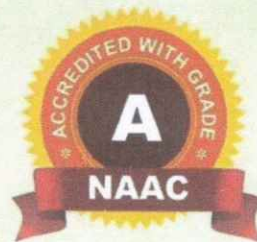
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### CHAPTER 1

## Vitamins as Nutraceuticals in Cancer

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### ABSTRACT

Cancer is a disease characterized by the development of abnormal cells that divide uncontrollably and have the ability to infiltrate and destroy normal body tissue. Cancer has a high proclivity for spreading throughout the body. Cancer is the world's second biggest cause of death, but advances in cancer screening, therapy, and prevention are increasing survival rates for many types of cancer. There are four main types of cancer: Carcinomas, Sarcomas, Leukemia, and Lymphomas. Vitamins are the compounds that the body requires for appropriate growth and development. Several clinical trials have been carried out in recent years to establish the role of vitamins in the treatment or prevention of cancer. Because of their contentious role in cancer, taking vitamins for treatment or the prevalence of cancer is still prescribed. Vitamins have been shown in epidemiological research to have anticancer

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### CHAPTER 2

## Vitamins as Nutraceuticals for Tuberculosis

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### ABSTRACT

Tuberculosis (TB) is still a significant public health issue across the world, especially with the advent of multidrug-resistant TB. The incapacity of humans to manage this illness derives from the fact that formerly successful TB vaccinations and treatments are no longer effective. As a result, researchers are looking for novel anti-tuberculosis drugs and adjuvant treatments. Vitamins are being studied again for their involvement in pathogenesis and anti-mycobacterial effects. Vitamins like biotin and thiamin are necessary for Mycobacterium TB to form an infection. Vitamins like Vitamin C and Vitamin D, on the contrary, have been demonstrated to have anti-mycobacterial effects. Innovative techniques must be designed to battle *M. tuberculosis*, keeping the effectiveness of the drug in mind. Vitamins

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### CHAPTER 3

## Vitamins as Nutraceuticals for HIV and AIDS

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### ABSTRACT

Human immunodeficiency virus (HIV) is a viral infection spread by multiple agents through multiple routes. The virus is a small group of microorganisms that causes mild to severe infections among human and animal races. In some infections, some are curable with existing medicines, and for some, medicines are yet to discover. Unfortunately, in the case of HIV infection, curable medicines do not exist, but symptomatic relief and life expectancy increase with quality of life. There is antiretroviral treatment (ART) which is available for the control of this infection, but if we shift focus on the modern medicines, side effects go on elevated with the escalating dose. These side

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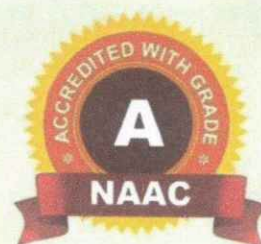
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### CHAPTER 5

## Vitamins as Nutraceuticals for Viral Infection

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### ABSTRACT

Vitamins are essential components of life, as they help in the prevention and control of various diseases, also required for normal cell function, growth, and development. Whereas nutraceuticals are substances with physiological benefits which help in the treatment of diseases. Nutraceuticals and pharmaceuticals are different from each other, where pharmaceuticals use drugs in the treatment of diseases, and nutrition that prevents diseases are used in nutraceuticals. Vitamins are used for various health conditions. Here, vitamins as nutraceuticals for viral infection are studied in detail. The present study will briefly help in understanding vitamins as nutraceuticals for viral infection.

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### CHAPTER 6

## Vitamins as Nutraceuticals for Microbial Infections

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### ABSTRACT

Nutrition and immunity, as well as the likelihood and severity of infection, have long been linked. For health and function, all cells, especially immune cells, necessitate nutrients as a component of a good diet. Each component of the body's immune response necessitates many micronutrients, such as vitamins. While chronic or severe infections cause nutritional problems or worsen the nutritional condition of those who are infected. Therefore, it is essential for all of us to focus on our diet and nutritional status. We must get the correct nutrients in our diet for our immune system to function at its best to fight against various microbial infections. Our immunological system is

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### CHAPTER 7

## Vitamins as Nutraceuticals for COVID-19

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### ABSTRACT

The coronavirus of 2019 (COVID-19) has caused international outbreaks and main loss of life. The disruption to public health and financial well-being has exceeded the direct results of COVID-19. The clinical outcomes of COVID-19 range from person to person. Some humans may also haven't any signs, even as others may also have signs inclusive of fever, headache, nasal congestion, chronic dry cough, and/or stomach signs and symptoms. People with this circumstance may also have acute respiration distress syndrome (ARDS), leading to problem respiration and reducing blood oxygen levels that require oxygen assistance, even mechanical ventilation. Other severe problems can consist of abnormal blood contact, emotional problems, damage to the cardiovascular system, and multiple organ failure, which may lead to death. Unfortunately, SARS-CoV-2 appears to have a massive effect on those maximums at risk in society, which includes those who are

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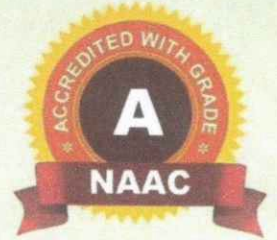
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### CHAPTER 8

## Vitamins as Nutraceuticals for Hypertension

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### ABSTRACT

Hypertension is a significant risk factor for a variety of disorders, including cardiovascular disease, vascular diseases, and kidney failure. Many studies are concentrating their attention on various diet formulas (dietary approaches), with a particular emphasis on micro- and macronutrients, as well as a transformed lifestyle and conventional antihypertensive medicines. Micronutrients (vitamins) play an important role in blood pressure regulation because they help macronutrient function and boost the antihypertensive effects of some

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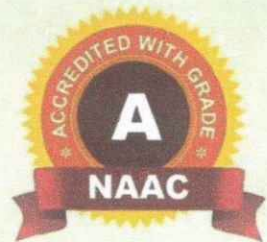
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### CHAPTER 9

## Vitamins as Nutraceuticals for Neurodegenerative Disease

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### ABSTRACT

Vitamins as nutraceuticals are a new concept growing at a rapid pace in a world full of allopathic medicines. Vitamins are mainly organic molecules required by the body for performing normal functions. Vitamins have multiple functions in the body. Vitamins are an essential part of the body and need to be consumed by the body as not all the vitamins are generated in the body, and deficiency of which may cause severe consequences. Vitamin deficiency

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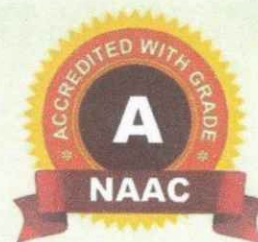
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### CHAPTER 10

## Vitamins as Nutraceuticals for Weight Loss and Obesity

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### ABSTRACT

Being overweight and weight gain are properly-established threat elements for cardiovascular disease and several cancers; however, the underlying mechanisms have now no longer been fully elucidated. The prevalence of weight problems has been rising regularly for the past many years everywhere in the world, leading to a growth in the prevalence of many complications of excess weight, a number of that are well acknowledged, such as Type 2 Diabetes (T2D), obstructive sleep apnea syndrome (OSAS), non-alcoholic fatty liver disease (NAFLD), and cardiovascular disease, even as others are emerging and presently being investigated. The recognition of vitamins and

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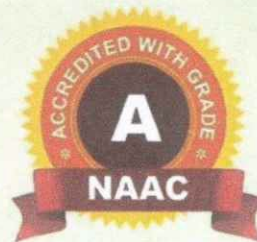
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### CHAPTER 11

## Vitamins as a Nutraceutical for Blindness

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### ABSTRACT

A nutraceutical can be called food which provides medical benefits and can be used for the prevention and treatment of disease. Also, the absence of such foods can lead to certain diseases or disorders. Nutraceuticals are composed of a number of bioactive compounds like antioxidants, phytochemicals, fatty acids, amino acids, probiotics, and vitamins. Vitamins, which can be classified as fat-soluble and water-soluble, are essential for various normal body functions. Generally, human beings are not able to synthesize vitamins, and hence humans should rely on an external animal as well as vegetable food sources for daily requirements of vitamins. These vitamins are also required for the normal functioning of human vision. Human vision can be attributed to rod and cone cells. These cells need a regeneration cycle, and for this, vitamin A is required. Lack of Vitamin A can lead to night blindness and dry eyes because of poor regeneration of visual pigment in retinal rods. If the deficiency is continuous, then it can lead to xerophthalmia causing permanent blindness. There is an association between cataract and oxidative damage of the lens, and hence antioxidant supplement is promoted as a strategy to slow down the progression of cataract, which can be given in the form of vitamin C. Vitamin E belongs to fat-soluble antioxidant vitamins

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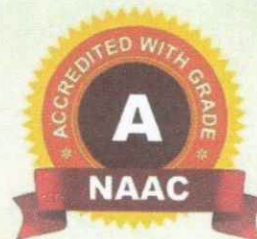
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### CHAPTER 12

## Vitamins as Nutraceuticals for Baldness

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### ABSTRACT

Alopecia is normally self-limiting and treatable, although it can also be permanent. A thorough diagnosis of the kind of loss of hair will aid in the selection of the most appropriate treatment. Reassurance is an essential part of any therapy plan. There are several forms of alopecia, each of which requires different therapy. Unfortunately, there is no therapy for alopecia, as most medications are designed to treat the condition. Alopecia areata is a frequent skin condition. Affected patients are frequently upset, and they seek to stop hair loss by using a variety of over-the-counter vitamin

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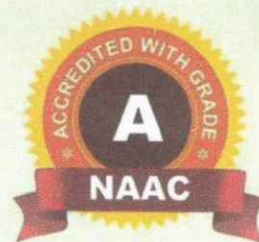
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### CHAPTER 13

## Vitamins as Nutraceuticals for Skin Care

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### ABSTRACT

Our skin is the largest organ present all over the body and protects all the internal organs from external damage. As per the study, our skin carries one-sixth of the total body weight. It plays the biggest role in various body functions. It mainly acts as a barrier to many physical and chemical components as they are harmful to the body. It regulates the temperature condition and homeostasis of the body, that is, internal temperature or the environment of the body. The skin is mainly composed of three layers such as epidermis, dermis, and hypodermis which is also called subcutaneous layer. To protect this skin from damage, the term nutraceuticals are come

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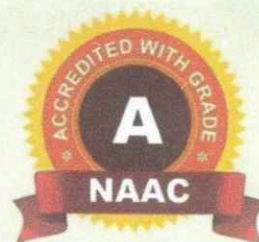
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### CHAPTER 14

## Overview and Recent Advances of Vitamins

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### ABSTRACT

Proteins, as we all know, are the body's building blocks, and they help to create muscle. Vitamins, on the other hand, are a nutrient supply for the body. They carry out all of the body's functions in accordance with their duties. The fundamental reason for this is that vitamins cannot be manufactured in the body and must be obtained from outside sources. Natural sources such as plants, animals, and other species such as algae, fungi, yeast, and microbes must also be included in this foreign source. Vitamins are not considered to be as important in human diets as they once were. However,

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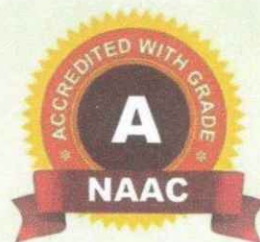
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### CHAPTER 15

## Vitamins as Nutraceuticals for Human Nutrition

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### ABSTRACT

The early 20<sup>th</sup> century turned into a vital length for the identity and biological chemical-physical characterization of nutrients. From then till now, much research has tried to make clear into element the organic position of the nutrients in human beings and their direct reference to positive sicknesses, both in a negative way (look of deficiency sicknesses because of vitamin deficiency) or a high-quality way (use of nutrients to deal with sicknesses and/or to enhance human fitness). This study aims to identify direct relationships between those substances and fitness by conducting an integrated analysis of the records of nutrition and its effects on human fitness. The outcomes of vitamins and dietary supplements on weight-reduction plans also are explored. The evaluation of the outcomes indicates that it's far not possible to set up strong and popular conclusions approximately the gain of nutrition supplementation on human health past the prevention and/or

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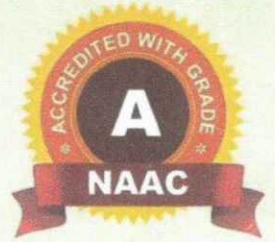
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AAP Advances in Nutraceuticals

## Nutraceuticals in Cancer Prevention, Management, and Treatment



Raj K. Keservani | Bui Thanh Tung  
Sippy Singh | Rajesh K. Kesharwani  
Editors

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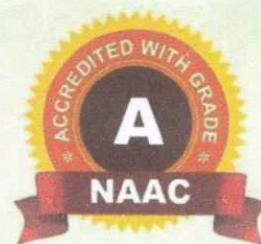
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### CHAPTER 2

## NUTRITIONAL STRATEGIES FOR THE PREVENTION OF CANCER

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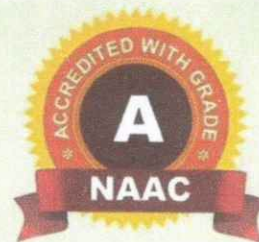
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**CHAPTER 8**

**LUNG CANCER PREVENTION BY  
 NUTRACEUTICALS**

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**ABSTRACT**

Lung cancer is another furthermost frequent disease worldwide and the main cause of cancer-related fatalities. In the United States, there were approximately 234,030 cases of lung cancer diagnosed in 2018, with approximately

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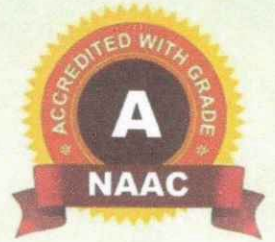
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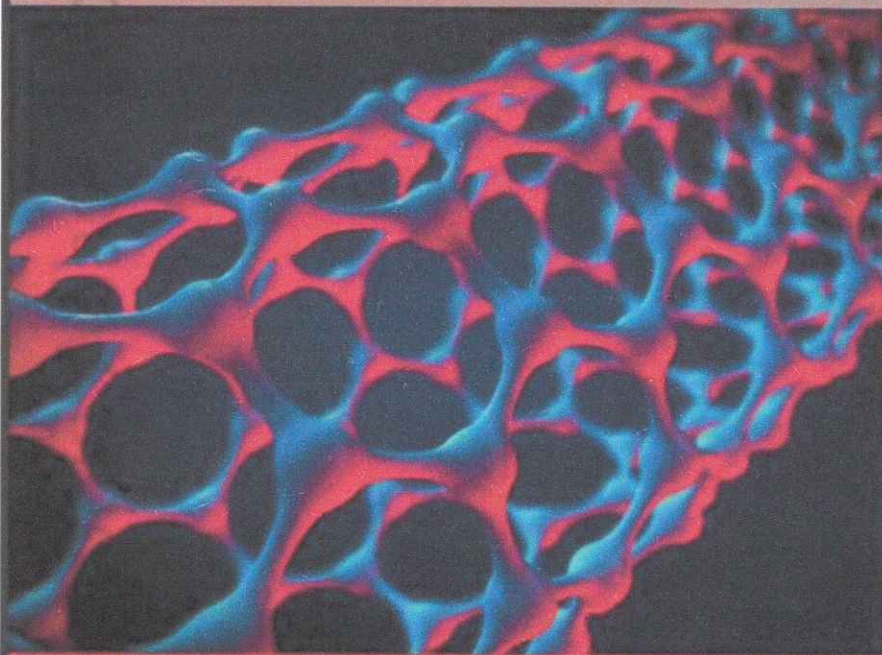
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## Carbon Nanotubes for Biomedical Applications and Healthcare



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Chin Hua Chia  
Swati Gokul Talele  
Ann Rose Abraham  
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Editors

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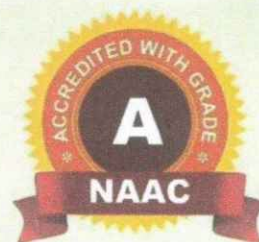
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### CHAPTER 7

## Carbon Nanotubes: A Novel Approach in Management of Fatal Disease Cancer

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#### ABSTRACT

Cancer is a generic term associated with abnormal and uncontrolled cell proliferation, which results in the development of tumor. Till date more than 200 types of cancers have been identified, of which lung, stomach, liver, colon, and breast cancer are the most recurrent types as per World Health Organization. Currently, it is treated by chemotherapy, radiotherapy, surgical resection or a blend of these three approaches. Conventional cancer treatment is associated with several limitations like systemic toxicity, bystander effects, nephrotoxicity, infertility, hair loss, myocardial infarction and many more. There is an imperative need to develop some novel treatment to target

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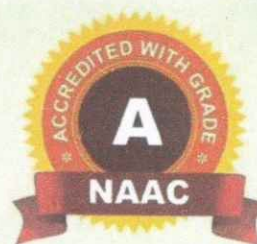
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## CHAPTER 10

### Role of Carbon Nanotube in Biosensor Developments

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#### ABSTRACT


Nanomaterials own particular features which cause them to mainly appealing for biosensing applications. Carbon nanotube (CNTs) based completely biosensors are diagnosed to be a next generation constructing block for ultrasensitive and ultra-fast biosensing systems. Especially, carbon nanotubes (CNTs) can withstand characteristic scaffolds for immobilization of biomolecules at their surface. Moreover, it holds various excellent, chemical, optical characteristics, electrical, and also the physical properties which make them one of the most magnificent, relevant materials for the transduction of signs related with the recognition that of metabolites and more important is

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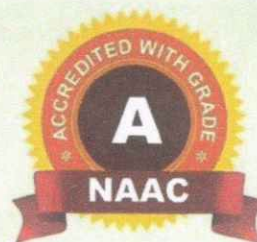
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### CHAPTER 11

## Carbon Nanotube: A Promising Role in Biomedical Imaging

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### ABSTRACT

The most present generally molecular imaging embody molecular magnetic resonance imaging (MRI), optical bioluminescence/fluorescence, focused ultrasound, single photon emission computed tomography technique (SPECT), positron emission tomography technique (PET), and moreover single walled carbon nanotubes (SWCNTs) personal strong resonance Raman Scattering with especially extent scattering cross-section, and are

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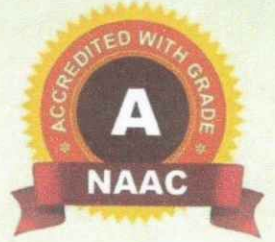
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AAP Advances in Nutraceuticals

## Applications of Functional Foods in Disease Prevention



Raj K. Keservani  
Eknath D. Ahire  
Editors



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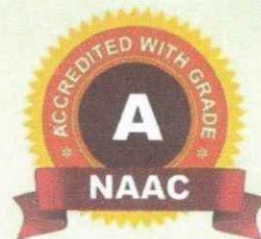
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*AAP Advances in Nutraceuticals*

# APPLICATIONS OF FUNCTIONAL FOODS IN DISEASE PREVENTION

*Edited by*

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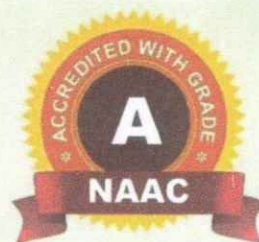
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### CHAPTER 2

## FUNCTIONAL FOODS FOR AUTISM

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### ABSTRACT

Autism is specified by impairments in social connections, communication deficits, and repetitive or stereotyped behavior. Stress the identical qualities of nutritional deficiencies in these children and the modification to evaluation and treatment that are needed to tailor these methods to the child, thus resulting in a more effective intervention. Keeping that factor in mind, it has to be cited that dietary lacking is a whole lot extra common than what's discovered with other children with disabilities, which have a few similarities to ASD along with language impairments. A traditional feeding control or feeding issues are diagnosed whilst children are not able to consume or drink enough portions to keep dietary wellbeing. The mode of such behavior that brought about an analysis of a feeding disorder can contain refusal of foods, selectivity of kind and texture of foods and disruptive behavior related to feeding or meal time.

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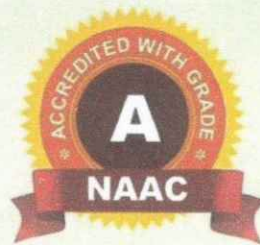
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## CHAPTER 3

### FUNCTIONAL FOODS IN CANCER MANAGEMENT AND PREVENTION

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#### ABSTRACT

Cancer is the main purpose of death in the world. Common cancers encompass prostate cancer, breast cancer, bladder cancer, colorectal cancer, and pores and skin cancers. Treatment of most cancers may be very costly. Therefore, they want to prevent the circumstance primarily or maybe secondarily. Foods, like chemicals, have cumulative consequences and include materials, each important and non-important, that have been proven to be healthy. This brought about the acclamation and reputation of certain ingredients as presenting fitness benefits and purposeful ingredients. Functional ingredients and nutraceuticals are chemopreventive to cancers as evidenced via way of means of unique research performed over the years. This does now no longer conclude that purposeful ingredients and nutraceuticals have an all-preventive impact due to the fact a few studies findings implicate them in cancer risks and progression. These evaluation goals to talk about a number of those ingredients and the chemoprotective compounds therein to useful resources in addition to scientific studies. Foods evaluated in cancer risks are grapes, tomatoes, pink peppers, berries, chestnuts, ginseng, *Rhodiola*, tea, soy, garlic, and cruciferous vegetables. This evaluation additionally

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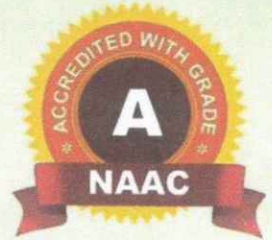
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### CHAPTER 4

## NOVEL APPLICATIONS OF FUNCTIONAL FOODS IN BRAIN HEALTH

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### ABSTRACT

Functional foods are highly nutritious and related to a number of powerful health benefits. They protect against diseases prevent nutrient deficiency and proper growth and development. These are ingredients designed to enhance health. They provide health benefits that reach beyond nutritional value. Vitamins, minerals, probiotics, fiber, and nutrient-dense components like fruits, vegetables, nuts, seeds, and grains are all found in functional foods. Brain health isn't independent of the body's general health status, and every measure that causes honest and maintained overall physical health also will be useful for the brain. Normally, overeating and adhering to a high-saturated-fat Western diet, processed carbs, and high caloric density behavior, which

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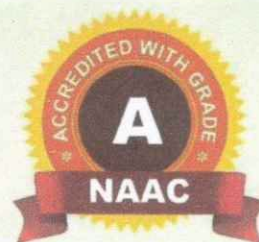
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### CHAPTER 5

## FUNCTIONAL FOODS IN THE MANAGEMENT OF WEIGHT LOSS AND OBESITY

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### ABSTRACT

Obesity is a global issue whose prevalence is rapidly increasing in emerging countries, making it a significant public health problem. In order to reduce the prevalence of various metabolic illnesses, health organizations prioritize weight control and obesity prevention. The main contributive element for obesity is found to be new eating habits, as well as current production and consumption trends. Changes in lifestyle, as well as dietary changes, are essential in the treatment of obesity; simultaneously, it is very important to assess the potential relevance of functional foods in promoting weight loss and preventing obesity. Prevention and treatment of obesity rely heavily on both nutrition and exercise. Because of the potential adverse effects of obesity medicines, the positive effects of natural constituents and functional

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## CHAPTER 6

### FUNCTIONAL FOODS IN HEALTH AND DISEASES

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#### ABSTRACT

A functional disorder is a medical condition that impairs the normal functioning of bodily processes rather than affecting the structure of body parts and remains largely undetected under examination, dissection, or even under a microscope. A functional disorder is widely increasing day-by-day in worldwide, and the treatment on that is somewhat helpful, but with some adverse effects and is expensive for poor people. Hence, cost-effective and risk-free management treatments are necessary for functional disease. To resolve this problem, we use functional foods that alter one or more functions in the body with minimum or no risk. Functional food provides us with good nutrition and supplements. It is cost-effective and readily available; we add it to our regular daily diet. In this chapter, we recognized different types of functional food which helpful for the different types of functional diseases.

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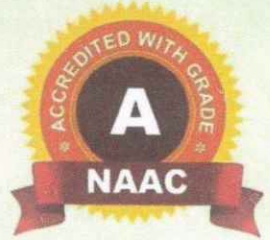
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### CHAPTER 9

## FUNCTIONAL FOODS FOR MICROBIAL INFECTIONS

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### ABSTRACT

Foods that have a potentially positive impact on health beyond basic nutrition are known as functional foods. Phytochemicals, dietary fibers, structural lipids, bioactive peptides, and polyunsaturated fatty acids are among them. Proponents of functional foods believe that they can help people achieve maximum health and lower their risk of illness. Food may also be found in honey, peanuts, mushrooms, quinoa, sheep milk, probiotics, folate, and lactobacillus. Infection happens when a bacterium enters a person's body and causes harm while also affecting the human body's immune system. Honey's immune-stimulating, anti-inflammatory, and prebiotic characteristics can

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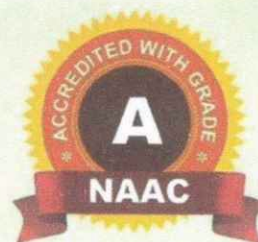
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### CHAPTER 10

## APPROACHES FOR TREATING ULCER WITH FUNCTIONAL FOODS

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### ABSTRACT

In recent years, functional food ingredients have been crucial for promoting health and lowering the risk of diseases like ulcers. Such foods are projected to give physiological advantages beyond their typical nutritional worth. Phytochemicals and bioactives must be present in foods, but their absorption, bioavailability, and metabolism are also crucial factors that affect how well they work. Processing, however, can also affect bioactive substances, therefore any changes to important food activities brought on by processing must be carefully considered. Key food ingredients and their benefits for health are provided. Functional foods are those whole, fortified, enriched, or more appropriate foods that provide health benefits beyond the availability of essential vitamins (e.g., nutrients and minerals), and this, Linking the

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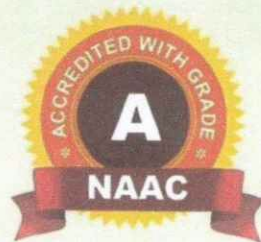
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### CHAPTER 11

## FUNCTIONAL FOODS IN ACIDITY MANAGEMENT AND PREVENTION

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#### ABSTRACT

Herbs, veggies, and fruits are being taken into consideration to be the ability supply for treating and controlling numerous ailments. "Let food be thy medication and medication thy food," the guiding principle via Hippocrates, is currently receiving excellent interest. In this context, the idea of functional food is enormously appreciated. Functional foods are "meals or food factor which gives each health and dietary benefits." This chapter includes functional food for prevention and remedy of acidity. Factors like *H. pylori* infection, intake of NSAID's, alcohol, tumors of the acid generating cells, smoking, chewing tobacco contributes for acidity. It is affecting hundreds of thousands of people worldwide. Conventional remedy consists of the medication which reduces the rate of gastric acid secretion, drugs which protects the mucus membrane that lines the GIT or the medication which removes *Helicobacter pylori*. In maximum of those instances, destructive reactions and occurrence of relapse has been observed. The difficulty is to introduce more secure tablets with most therapeutic effect, without destructive reactions. In the prevailing have a look at a formulation (PHF-1) containing decided on functional foods which acts via way of means of numerous mechanisms to prevent and treat ulcers become advanced and evaluated for its efficacy against ethanol caused gastric ulcers.

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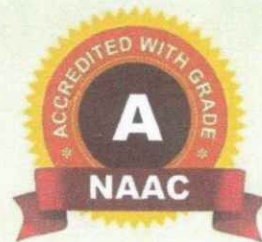
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### CHAPTER 12

## ROLE OF FUNCTIONAL FOODS IN PSYCHOTIC DISORDERS

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### ABSTRACT

We all know about nowadays lifestyles and workloads and which brought major impact on mental health, functional disorder which mainly effect on the brain anatomy and physiology, and change the behavioral status. Psychosis is defined as a group of mental disorders characterized by symptoms such as fixed false beliefs, hallucinations, disorganized thoughts, and clang associations, treatment available on psychosis disorder is only for symptomatic not cure types. It is necessary to develop the treatment which counteract and improve the disease condition and functional food are the good candidate for the psychosis disorders, which has variety of activity by which they act on pathophysiology of disease. In this chapter, we focus

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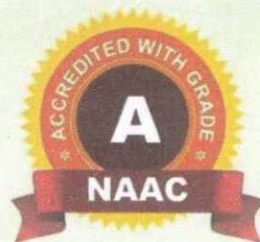
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### CHAPTER 13

## FUNCTIONAL FOODS FOR VIRAL INFECTIONS

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### ABSTRACT

Functional food is very important to control of viral infections. An array of nutrients like macro and micro-nutrients, vitamins, etc., is related to boosting the host's immune responses in opposition to intracellular pathogens. The functional food has immunomodulatory results in managing the infection and inflammation processes. They also have results in managing dietary deficiency of any form, i.e., malnutrition. The maximum vital additives that may be brought to meals are probiotics, prebiotics, symbiotic, nutrient, and polyphenols. The elements consist of anorexia, conventional behaviors,

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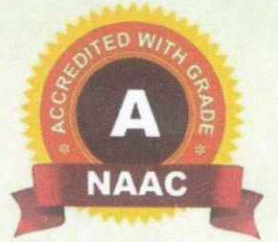
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AAP Advances in Nutraceuticals

# The Flavonoids

## Extraction and Applications



Deepika Saini | Rajesh K. Kesharwani | Raj K. Keservani  
Editors

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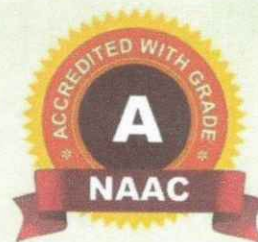
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## CHAPTER 11

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# ANTIMICROBIAL AND ANTI- INFLAMMATORY ACTION OF FLAVONOIDS

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### ABSTRACT

Flavonoids are one of the most important categories of small molecular secondary metabolites created in several elements of the plant. They show a good variety of medical specialty and helpful health effects for humans, which include, among others, antioxidative activity, radical scavenging capacity, coronary cardiovascular disease hindrance and antiatherosclerotic, hepatoprotective, antimicrobial, anti-inflammatory, and antitumor activities.

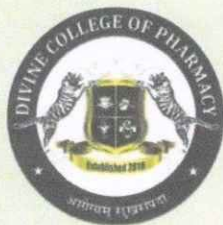
The Flavonoids: Extraction and Applications. Deepika Saini, Rajesh K. Kesharwani, & Raj K. Keservani (Eds.)

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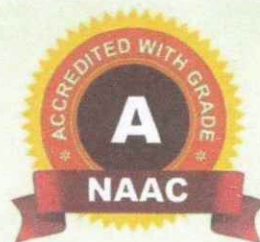
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### CHAPTER 12

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## ROLE OF FLAVONOIDS IN DERMATOLOGY AND COSMETIC PREPARATIONS

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### ABSTRACT

Flavonoids are dietary substances that belong to the phytochemicals, or plant chemicals, class of compounds. There are about 5000 different varieties of flavonoids, and a single food item can contain hundreds of them. Flavonoids are formed up of a basic polyphenolic ring structure (see the chapter on Flavonoids) with numerous side chains connected, giving the compound a variety of properties (see the chapter on Flavonoids). Despite their antioxidant properties, flavonoids' ability to absorb ultraviolet (UV) radiation and change signaling pathways that regulate cellular function appears to support their beneficial effects on skin health. Flavonoids administered topically are not vulnerable to first-pass metabolism. Topical application can deliver pharmacological doses; however there are concerns about solubility, stability, and penetration. In vitro testing has been done to determine whether specific flavonoids formulations have the ability to permeate excised human skin samples.

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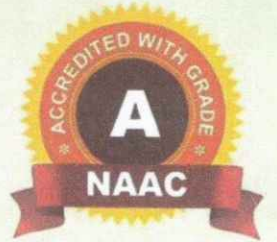
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**Immune-Boosting  
 Nutraceuticals for  
 Better Human Health**  
 Novel Applications



Urmila Jarouliya | Raj K. Keservani | Rajesh K. Kesharwani  
 Virendra K. Patel | Adi D. Bharti  
 Editors

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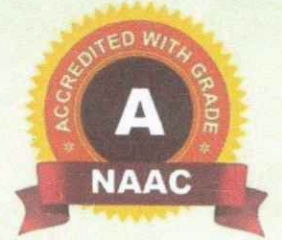
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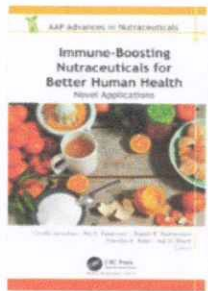
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Chapter

## Nutrition, Malnutrition, Infection, And Immunity

By *Khemchand R. Surana, Eknath D. Ahire, Sunil K. Mahajan, Dhananjay M. Patil, Shubham J. Khairnar*

Book [Immune-Boosting Nutraceuticals for Better Human Health](#)

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### ABSTRACT

Nutrition plays a main function with within the management each acute and chronic diseases, in phrases of the body's response to the infective organism.

Associate array of nutrients like macro- and micro-nutrients, vitamins, 356etc., is expounded to boost the host's immune responses con to living thing pathogens. These nutrients have an immunomodulatory lead to dominant the infection and inflammation processes and dietary deficiency of any form, i.e., deficiency disease can even in addition result in nutritionally received immunological disorder syndrome, which considerably can increase an individual's susceptibleness to development of infection to disease. Nutrition and infectious illnesses are related to every completely different in a few aspects. First, nutrients impact the advance of human body immune system. Moreover, nutrients will have an effect on emerge of infectious diseases (e.g., channel infections), meals poisoning, intestinal illnesses, and general infectious illnesses. Overall, many elements can weaken the frame's cap potential to combat infection and reason deficiency disease. The weather contains anorexia, typical behaviors, reduction of intestinal absorption, metabolic damage, illness metabolism of lipids and carbohydrates, discount of vitamins, iron, zinc, and copper. Within the case of the association between malnutrition and infection, a giant variety of studies have illustrated bidirectional interaction of malnutrition and infection. During this aspect, to deal with severe acute deficiency disease and limit the charge of death, much preventive analysis meted out antibiotics, probiotic bacteria, and prebiotic foods. Within the future, research will be carried out on enteric or systematic immunomodulation.



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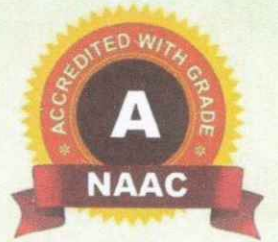
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AAP Advances in Nutraceuticals

## Advances in Flavonoids for Human Health and Prevention of Diseases



Nisha Sharma | Deepika Saini | Rajesh K. Kesharwani  
Prakash Chandra Gupta | Raj K. Keservani  
Editors



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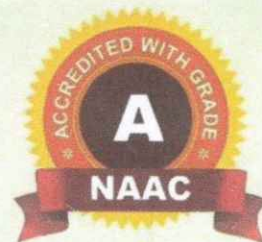
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### CHAPTER 1

## NUTRITIONAL PROPERTIES OF POLYPHENOLS

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### ABSTRACT

Polyphenols are secondary plant metabolites that protect plants from UV radiation and disease attack. Over the last decade, there has been a lot of interest in the health implications of dietary plant polyphenolic compounds

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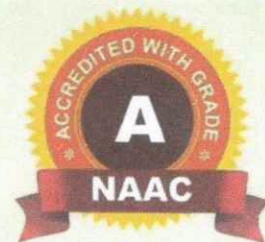
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### CHAPTER 3

## MANAGEMENT AND PREVENTION OF DISEASES BY FLAVONOIDS

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### ABSTRACT

Noncommunicable diseases (NCDs), often known as chronic diseases, include cardiovascular disease (CVDs), diabetes, neurodegenerative disorders, and cancer, which continue to be a healthcare burden in both

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