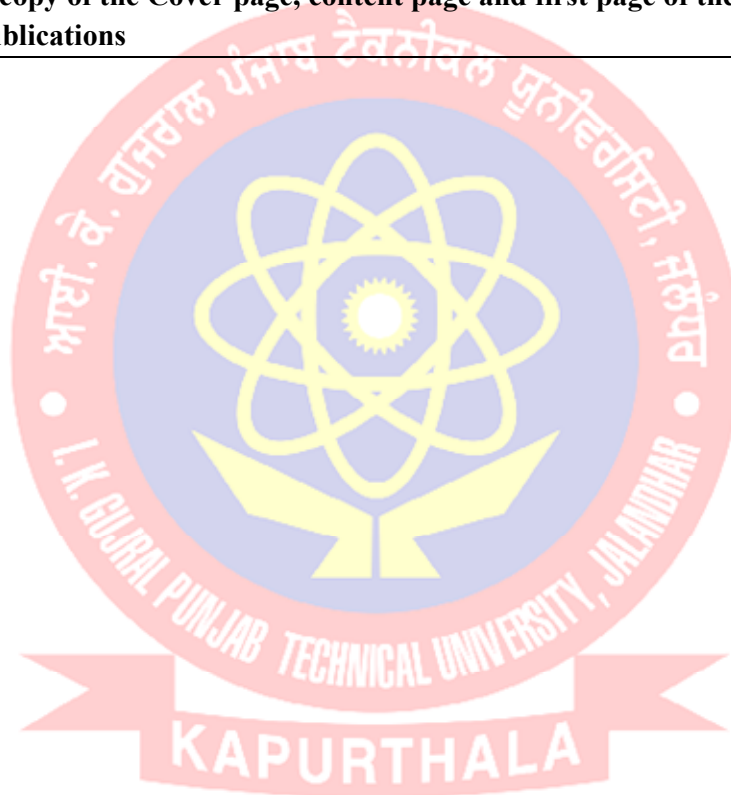


## Department: Food Science & Technology

### 3.4.6

### Books and Chapters published in edited volumes

Sl. No.	Documents Attached
1.	E-copy of the Cover page, content page and first page of the publications



Annexure - D-87-21-6

# Research Trends in Medicinal Plant Sciences

Volume - 7

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AkiNik Publications  
New Delhi

## Contents

Chapters	Page No.
1. Nutritional Significance of Aloe Vera (G. Saibhavani, T. Kamalaja, K. Rajeswari and Dr. T.V. Hymavathi)	01-26
2. Medico Legal Aspects of the Medicinal and Poisonous Plant Jayapala ( <i>Croton tiglium</i> ) (Dr. Jyoti M. Ganer and Dr. Umapati C. Baragi)	27-43
3. Role of Medicinal Plants in Controlling Human Diseases (K.C. Deepthi and A. Baleeshwar Reddy)	45-60
4. Hemorrhoids: Review on Therapeutic Approach (Gaurab Borah)	61-76
5. Understanding the Potential of <i>Paris polyphylla</i> for Treatment of a Wide Range of Cancer Cell Lines (Debmalya Das Gupta, Bipul Ch. Kalita, Dipayan Paul, Sanjib K. Das, Tridip J. Das, Hui Tag and Pallabi Kalita Hui)	77-89
6. Phytochemistry and Pharmacology of <i>Boerhavia diffusa</i> Linn. (Sudheer WN and Praveen N)	91-108
7. Phytochemistry (Dr. Aisha Ambreen and Dr. Muhammad Javaid Asad)	109-133
8. Techniques for Preliminary Phytochemical Studies on Plant Materials (Masimba Tapera, Barinderjit Singh and Patrick Ndambiri)	135-150

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21/06/19/21

**Chapter - 8**  
**Techniques for Preliminary Phytochemical**  
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2/  
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Annexure D.F.S.T-34-6

NANOTECHNOLOGY IN FOOD INDUSTRY VOLUME 1

# Nutrient Delivery

Editor

Alexandru Mihai Grumezescu



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2/6/11/21

24

Annexure D.F.ST-3-4-63  
53

# Biotechnology in Medicine

and

# Herbal Drug Development

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24/06/19/21

R-6

INDEX

S. No.	Title	Authors	Page No.
	Biotechnology: A novel approach in medicine	P.K. Khosia	1
2.	Role of Biotechnology in modern medicine	Satya N. Das, Poonam Gaur	18
3.	Vaccines: Past and Present Perspectives	Ram Sarup Singh, Shivani Thakur	25
4.	Stem Cell Engineering and its Therapeutic Applications	Jasbir Kaur, Manzoor Ahmad Malik, Sandeep Goswami	41
5.	Molecular Authentication and Quality Control of Herbal Drugs	Parveen Bansal, Vikas Gupta, Renu Bansal, Kamlesh Kohli	52
6.	Role of Biotechnology in Development of Nutraceuticals	Archana, Som Nath Singh	69
	Biotechnological Interventions for Biodiversity Conservation Focus: Medicinal Plant Resources	Dapinder Kaur Bakshi, Jatinder Kaur Arora, Isha Dutta, Parveen Manshahia	81
8.	Nutritional Genomics: Nutrigenomics and Nutrigenetics	Gazal Sharma	100
9.	Fermented Biomedicine <i>Asava</i> and <i>Arishia</i> -products of ancient biotechnology	Vikas Gupta, Parveen Bansal, Renu Bansal, Savita Sharma, Sanjiv Kumar	111
10.	Role of Biotechnology in cultivation and Conservation of Medicinal Plants	Manisha Mangal, AK Mangal, Sangita Bansal, BP Dhar	121
	Role of Biotechnology in Veterinary Sciences	RS Sethi, Neelam Bansal	145
	Microbes and Biotechnology	Renu Bansal, Neerja Jindal	149
	Impact of Molecular Biology in Ophthalmology	Manzoor Ahmad Malik, Jasbir Kaur	159
14.	Biotechnological Approaches for Conservation and Improvement of Rare and Endangered Medicinal Plants	Nagendra S Chauhan, Satish Patel, Deependra Singh, Ashish Baldi	167
	Biosensors in Medicine and	Ravish Garg, Somsirsa	188

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2/06/19/21

# COLLOIDAL SYSTEMS: AN EXCELLENT CARRIER FOR NUTRIENT DELIVERY

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## 1 Introduction

Nutrition involves the nutrients' interactions and other substances in food, such as phytonutrients, anthocyanins, tannins, and so forth. Nutrients are components in foods that an organism uses for maintenance, growth, reproduction, and health, to prevent future illness and to improve quality as well as length of life and well-being. Dr Stephen L. DeFelice (chairman of the Foundation of Innovation Medicine (FIM), Crawford, New Jersey) first defined the term *nutraceutical*. According to Health Canada, a nutraceutical is a manufactured good that is quarantined or refined from foods. Nutraceuticals are commonly vended in therapeutic or curative forms that are not typically related with food. Nutrients prove to have a functional value or to deliver fortification to patients with long-lasting ailments, such as arthritis, cancer, metabolic and cardiovascular diseases, Alzheimer, Huntington disease, osteoporosis, cataracts, brain disorders, and so forth. Nutrition is the sum of all processes involved in food intake, absorption, digestion, biosynthesis, catabolism, and excretion (Corstius et al., 2015). Without sufficient nutrition, the human body does not function optimally and severe nutritional inadequacy can lead to disease and even death (McClements, 2015). Nutrients (bioactive compounds) are derived from foods with several biological actions or events and minute side effects. Different from pharmaceutical agents that are precisely considered or manufactured for ideal effectiveness to treat definite ailments, nutrients have natural origins and typically low bioavailability and poor stability. As a result, nutrients are more delicate and labile than

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06/11/20

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3.4.6 Number of books and chapters in edited volumes published per teacher during the last five years (15)

3.4.6.1: Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year wise during the last five year

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at time of publication	Name of the
1	Masimba Tapera, Barinderjit Singh and Patrick Ndambiri	Research Trends in Medicinal Plant Sciences (Volume 7)/ Techniques for Preliminary Phytochemical Studies on Plant Materials				National	2020	978-93-90322-09-1	I.K.G. Punjab Technical University	
2	Gazal Sharma	Nutrient Delivery: Nanotechnology in the Agri-Food Industry, Volume Five	Colloidal Systems: An Excellent Carrier For Nutrient Delivery			International	2017	978-01-28043-04-2	I.K.G. Punjab Technical University	Elsevier Academic Press
3	Gazal Sharma	Nano-Carrier Systems: Theory, Methods and Applications	Microemulsions			National	2017	978-93-86819-65-9	I.K.G. Punjab Technical University	PharmaMed Press

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DVV DFST-3.4.6  
Total Page-1